

# TESS Renewable Energy

## Inquiring energy and sustainable energy sources



### TESS Renewable energy – the comprehensive solution to cover the theme field energy of your curriculum

The energy resource plays a strongly growing role in our everyday life. Especially in times of global warming caused by CO<sub>2</sub> and limited supply of fossil fuels the understanding of the concept energy, its conversion and the sustainable use of it becomes more and more important. It is one of the fundamental elements to retain our standard of living and attenuate the climate change.

The topics energy, its conversion and its storage are covered extensively with the experimental sets for students TESS. Set 1 contains the following themes: Basics about the conversion of energy as well as use and storage of renewable energy. Set 2 is based on set 1. It mainly allows quantitative experiments and enhances the spectrum of energy sources with fuel cell technology (solar-to-hydrogen, wind-to-hydrogen, ...) and concentrated solar power technology.

### Features

Comprehensive covering of the field in 2 modular sets

45 described experiments

Developed for modern teaching in all levels

Compliant to the curricular requirements

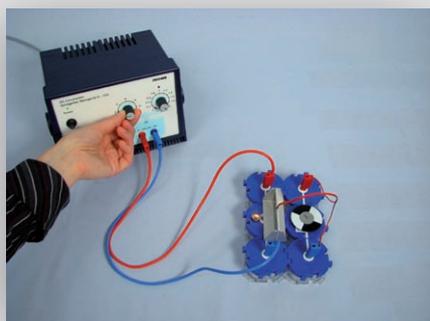
Minimal preparation time, easy performing and fast evaluation thanks to interTESS

TESS Renewable Energy is developed based on the curricular requirements for secondary schools and offers an easy access to any experiment of this field. The teaching concept of TESS Renewable Energy is focussed on students experiences from everyday life (greenhouse effect, heat insulation,...) to create a awareness for the limited energy resource.

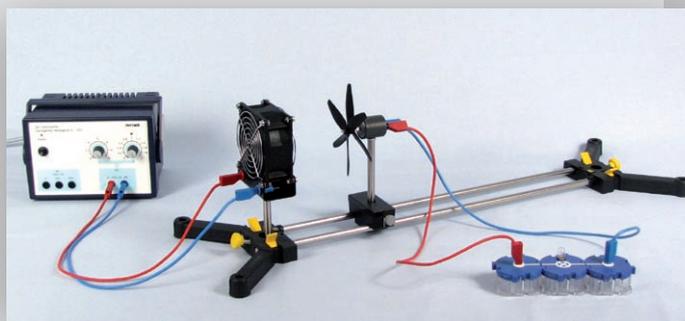
Furthermore the use of interTESS, the experimental software for computer assisted education with TESS, minimizes the preparation time and facilitates to perform and to analyze the experiment and to evaluate the student's work.

Both sets including 45 experiments with manuals cover the following topics:

- conversion of energy
- storage of energy
- solar power (thermic and voltaic)
- hydro power and electricity
- wind energy
- geothermal energy, ambient heat
- hydrogen technology, fuel cell (set 2)
- csp (concentrated solar power) technology (set 2)



Electricity generation by solar power



Electricity generation by wind power

## Products

### Set 1 – Basics of the conversion of energy and renewable energy sources

TESS Renewable Energy EN 1

13287.88

### Set 2 – Quantitative experiments for advanced learners (incl. hydrogen-to-wind and hydrogen-to-solar and csp technology)

TESS Renewable Energy EN 2

13288.88

Additionally needed: Power supply 0 – 12 V DC, Multimeter

### interTESS experimental software for computer assisted education with TESS

interTESS software, DVD – ROM, school license

01000.00

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