

Educational Eco-Trailer

Mobile Workshops on Renewable Energy Sources



About the project

The project will consist in building an ecological camping trailer, powered by renewable energy - solar panels and a wind generator. The produced electricity will be stored in an energy storage (power bank).

This equipment will be used to organize demonstration workshops in the vicinity of allotment gardens, camping sites and similar places, where allotment holders and all inhabitants will be able to test RES in practice and listen to an expert who will answer their questions. Allotment holders will also be able to charge their electric garden tools 🌱.

In addition, the construction of the trailer itself will be documented in the form of a brochure with instructions, tips and photos on how to make a similar system yourself. We will publish the brochure on our website.



The need

The idea of living off-grid has gained many supporters in recent years. This more sustainable way of living means not only financial freedom, but above all a lower carbon footprint.

In remote locations, systems that generate electricity from renewable energy sources can be more cost-effective than extending electric grid lines. However, these systems are also used by people who live near the grid, want to gain independence from the power provider, or demonstrate a commitment to renewable energy.

There are many estates of family allotment gardens in Poland. Recreational plots have very different access to energy and water infrastructure. This problem concerns especially gardens and estates outside big cities.

At the same time, many recreational lots in and around the city have already been developed, and demand continues to grow, especially during pandemonium.

The conditions described above are an excellent opportunity to, on the one hand, present the potential of renewable energy sources in a safe environment (after all, electricity is not absolutely necessary, although useful, during recreation in nature) and, on the other hand, solve real problems in the form of:

- power grid failures (for example, resulting from climate change),
- the existence of wastelands, which could be developed into new recreational areas,
- rising electricity prices.

Goal

Our project addresses the needs described above.

The goal of the project is to increase the awareness of recreational plot users about the advantages of using renewable energy sources as the primary source of energy on their properties; and to popularize the idea of off-grid. As part of the project, we will design and build a hybrid energy production system from renewable energy sources (sun and wind) that is both portable and efficient. We will modify a caravan in order to install these devices on it.

We will accomplish this goal by conducting demonstration workshops on the use of solar and wind energy and the storage and potential use of surplus energy.

In addition, the construction of the caravan itself will be documented in a brochure with instructions, tips and photos on how to build a similar system yourself. The brochure will be published on our website.

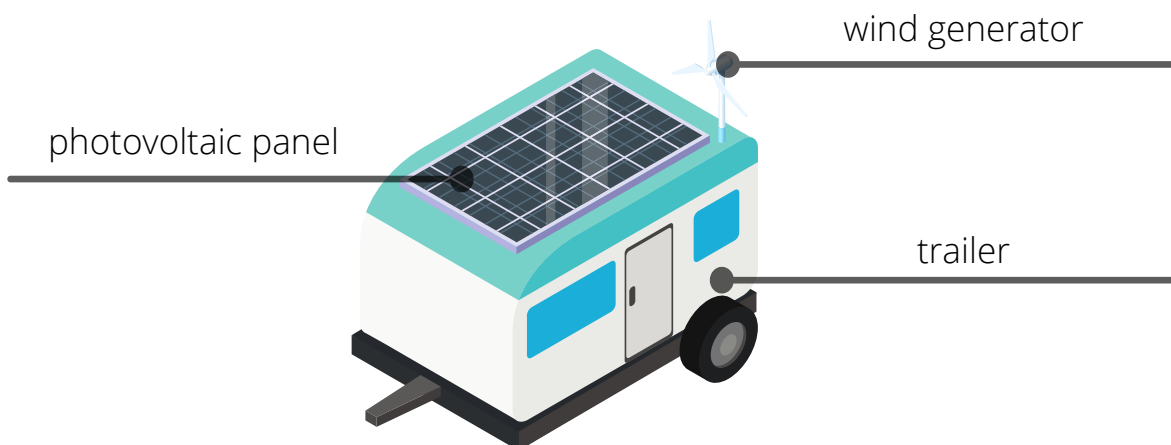


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How does it work?

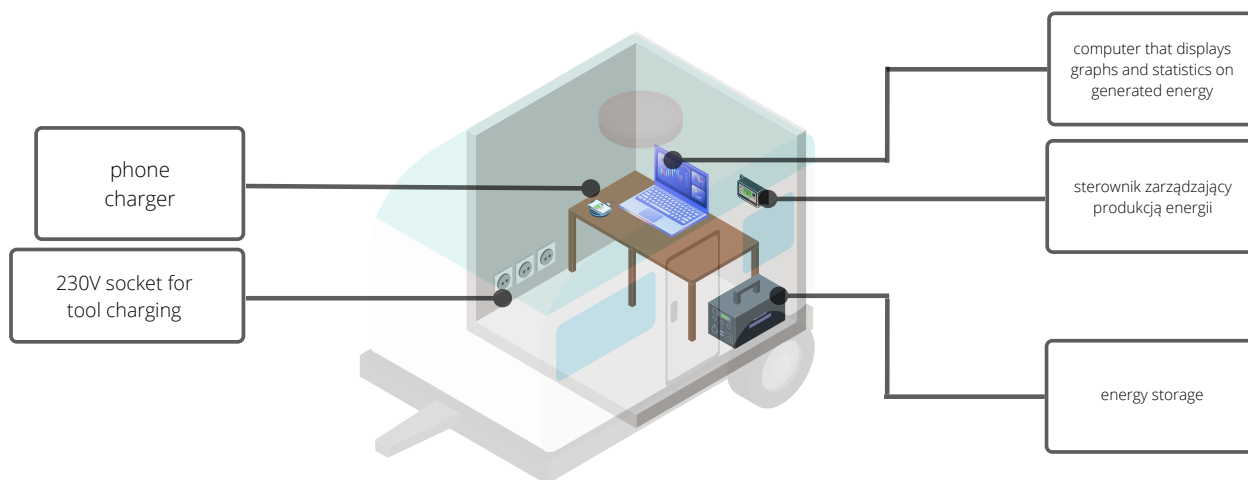
Exterior

A photovoltaic panel and wind generator will provide power to a controller located inside the trailer.



Interior

Inside, the controller manages the received energy and delivers it to the energy storage directly to some devices. The energy storage also has a built-in 230V inverter, which allows you to power any device (such as gardening tools). The computer collects and displays statistics and other useful information.



Schedule

We're already
working on it,
join us!

PHASE	START	END
TRAILER CONSTRUCTION	April	May 2022
WORKSHOPS & DEMONSTRATIONS	June	August 2022
BROCHURE PUBLICATION	July	August 2022



An important and lasting result of the project, besides the eco-trailer itself, will be a brochure with instructions and tips on how to build and use renewable systems yourself.

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