

Solar Energy South Africa

How to start the wind power generator



Overview

How do I build a wind powered generator?

Like any project dealing with self-sustainability building a wind powered generator involves a 3-pronged approach of - 1) starting small, 2) getting familiar, and 3) building your knowledge base and expanding.

Do you need a generator to run a wind turbine?

Choose a generator. Your wind turbine needs to be connected to a generator to produce electricity. Most generators are direct current (DC), which means that to use one to provide household current you'll need to connect the generator to a power inverter to produce the alternating current (AC) that household appliances use.

How does a wind power generator work?

The wind power generator uses 24 magnets, copper wire fashioned into coils, and a metal plate for the main generator. The coils are arranged in a circular formation on a static plate, while the magnets are equally spaced on a moving circular plate.

How much electricity can a wind turbine generate?

The amount of electricity that a wind turbine can generate depends mostly on the size of the turbine, the area swept by the turbine blades, the air density, and the wind speed. The overall design of the wind turbine is also crucial for how efficiently the blades can capture the wind.

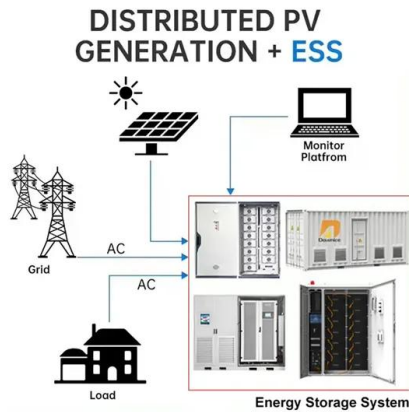
How do wind turbines work?

Wind turbines can turn the power of wind into the electricity we all use to power our homes and businesses. They can be stand-alone, supplying just one or a very small number of homes or businesses, or they can be clustered to form part of a wind farm. Here we explain how they work and why they are important to the future of energy.

What is a dynamo generator in a wind turbine?

The same thing happens in a wind turbine, only the "dynamo" generator is driven by the turbine's rotor blades instead of by a bicycle wheel, and the "lamp" is a light in someone's home miles away. In practice, wind turbines use different types of generators that aren't very much like dynamos at all.

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How Long Does it Take a Wind Turbine to Pay for Itself?

The blades and the gearbox take up the majority of a wind turbine's cost. Source: Aron Yigin Return on Investment. So let's say we have an onshore 2.6 MW turbine, which according to the NREL, costs \$37 per MWh to ...

How a Wind Turbine Works

Wind turbines work on a simple principle: instead of using electricity to make wind--like a fan--wind turbines use wind to make electricity. Wind turns the propeller-like blades of a turbine around a rotor, which spins a generator, ...



How Wind Power Works

In the case of a wind-electric turbine, the turbine blades are designed to capture the kinetic energy in wind. The rest is nearly identical to a hydroelectric setup: When the turbine blades capture wind energy and start moving, they spin a ...

The 5 Best Home Wind Turbines for Clean Energy ...

More expensive than many wind turbines, the Windmill 1500W is also one of the most powerful and comprehensive wind generator kits available. Rated at 1500 W, with a cut-in wind

speed of 5.6 mph, this turbine can start ...



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