

Water & Sanitation

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Additional Solutions

ROTOR - River Power Plant

Mobile Hydro



Contact Solution Provider

Project supported by

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Solution Overview & Benefits

Rotor is a small hydro power plant which provides an easy way to generate electricity by harnessing the current of a river. A vertical axis water wheel is mounted in the center of a circular tube. Induced by the flow of a river, the wheel turns like a turbine. The rotational energy is transferred by the axis to a wheel where several conventional bicycle dynamos transform the kinetic energy into electricity.

The rotor is fixed to the embankment, a bridge or something similar by mooring ropes. The rotor prototype consists of a tractor tire tube, a flat bar steel as frame construction, bicycle dynamos and sheet metal blades. All required materials can be sourced locally worldwide. A flow speed of 1.5m/s can provide an output of up to 150W.

An online-Do-It-Yourself manual offers a variety of possible materials to be used. Moreover, an affordable pre-fabricated construction kit which includes the important parts, e.g. tire tube, blade profiles, canvas cover and a specific generator is being developed.

History & Development

According to figures published by the International Energy Agency (IEA), 1.4 billion people lack regular access to electrical energy. Over 2.5 billion people rely on traditional biomass for cooking. Access to electrical power plays a significant role in improving living conditions. Inspired by the Millennium Goals, the Rotor uses ecologically sustainable technology to enable access to electricity in remote areas.

Availability

Publicly available: no

Countries where available: Worldwide

Price range (USD): Contact supplier for quote

Offered or can be licensed for local manufacture: Yes

Additional Information

[Website](#)

[Product page](#)

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G E T C O N T

