



Build Your Own Wind Turbine Workshop

Learner profile and course overview.

This course is designed for a broad audience. It is a practical, hands-on course where the participants will learn to build a wind turbine from start to finish, participating in every stage of the process. The course should appeal to those with an interest in learning more about renewable energy, specifically wind energy and how to provide energy for the home or farm. Ideal for people from the farming sector, general public or professional trades people who wish to learn first-hand from people who have been involved with renewable energy for years. The machine we will build is based on Hugh Piggott's design. Please note that only one turbine is built as part of the course. Practical activities include: Carving the timber blades, winding the coils, building/casting the magnetic rotors and stator, building/welding the metal framework and mounting the hub, designing and carving the tail vane and wiring up the system.

Tutors:

Hugh Piggott: In 1978 Hugh got seriously bitten by wind power and has used wind and solar power for his own electricity ever since that time. He has designed, built and sold small wind turbines in sizes from 3 feet to 15 feet in diameter. These supply electricity to the population of Scoraig, NW Scotland (about 100 people) and beyond. He has written a number of books about building small wind turbines and teaches all over the world. He first came to Ireland in 2007 and again in 2008. He is renowned as one of the world's foremost experts on wind power. You can visit his website on www.scoraigwind.co.uk
Eirbyte Renewable Energy tutors - Jimmy Dowd's and Miriam Sheerin, have lived off-grid for many years and have been involved with the design and installation of renewable energy systems (wind and PV) for 10 years now. They have been teaching Build Your Own Wind Turbine courses for five years.
www.buildyourownwindturbine.com

No. of Class Days: 6 Days

Purpose/Overall Learning

The course participants will learn many skills and also the theory involved in a domestic wind turbine. A domestic wind turbine will be built from scratch on the course. We will discuss various mounting systems, inverters and control systems, off-grid and grid-connected systems. At each stage of the process the participants will gain hands-on experience. Saturday will include a workshop and practical on wiring up the machine for an off-grid power application on site.

Process

Metal cutting and welding, frame building, coil winding, soldering, mould-making, resins.
Choosing wood for blades, marking each stage of blade production, carving and shaping blades using hand tools, assembly of turbine, blade balancing.

Course Fee: €350 (includes Saturday) One day workshop only on Saturday 19th : €50

Course Dates: Monday to Saturday: August 13th-19th

Saturday 19th: One day workshop on wiring up the wind turbine to manage an off-grid power system.