



FLUXY

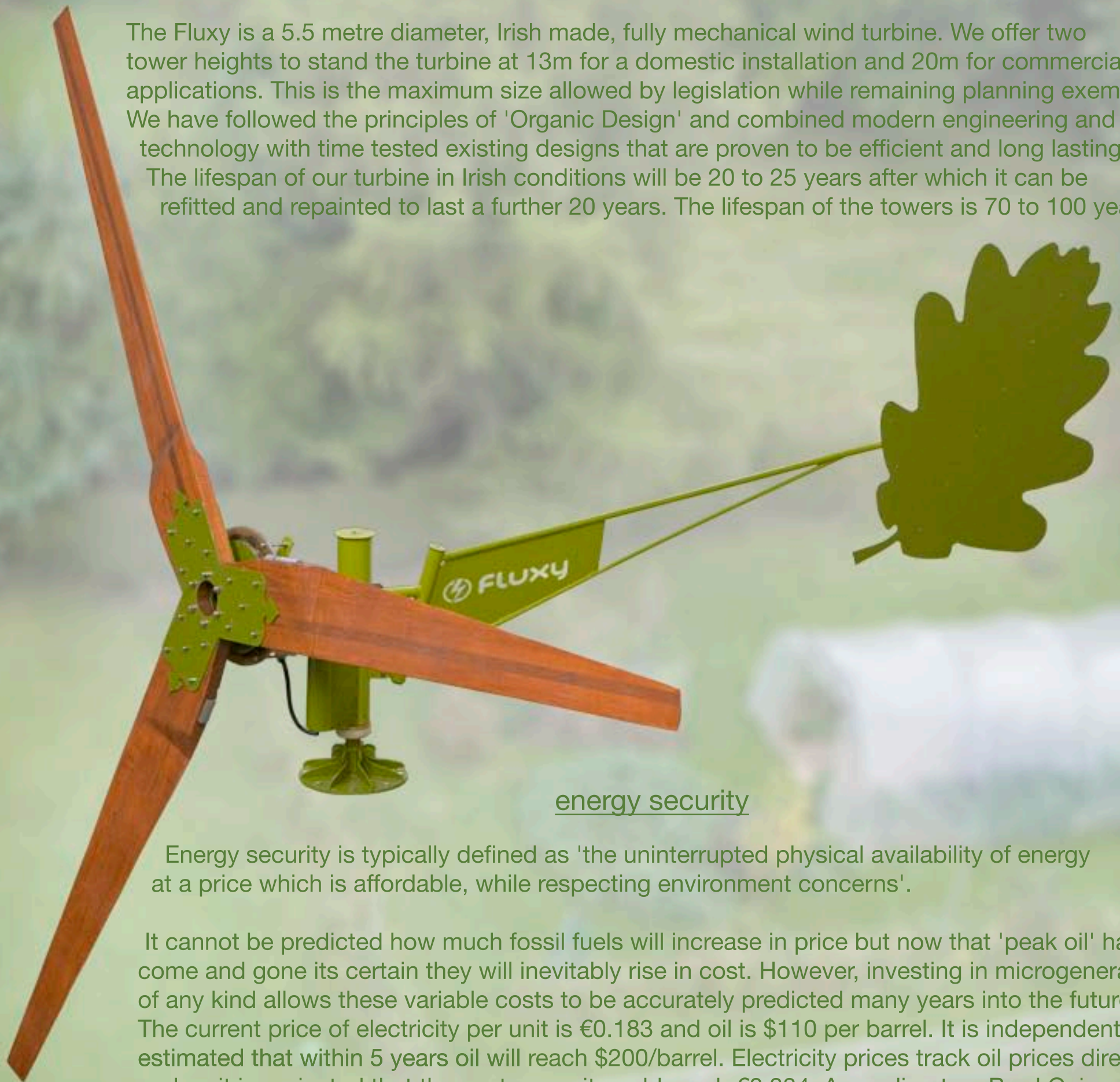


'Fluxy' is the wind turbine division of Kingston Renewable Energy.



Kingston
Renewable
Energy

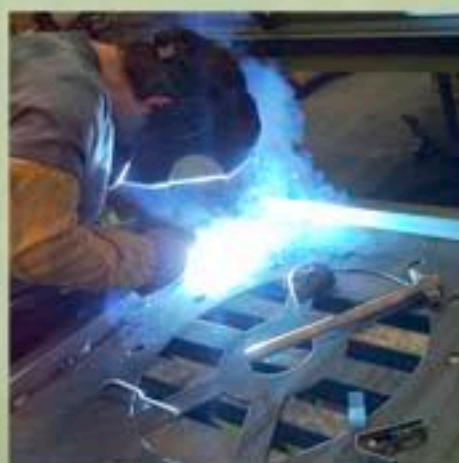
The Fluxy is a 5.5 metre diameter, Irish made, fully mechanical wind turbine. We offer two tower heights to stand the turbine at 13m for a domestic installation and 20m for commercial applications. This is the maximum size allowed by legislation while remaining planning exempt. We have followed the principles of 'Organic Design' and combined modern engineering and technology with time tested existing designs that are proven to be efficient and long lasting. The lifespan of our turbine in Irish conditions will be 20 to 25 years after which it can be refitted and repainted to last a further 20 years. The lifespan of the towers is 70 to 100 years.



energy security

Energy security is typically defined as 'the uninterrupted physical availability of energy at a price which is affordable, while respecting environment concerns'.

It cannot be predicted how much fossil fuels will increase in price but now that 'peak oil' has come and gone its certain they will inevitably rise in cost. However, investing in microgeneration of any kind allows these variable costs to be accurately predicted many years into the future. The current price of electricity per unit is €0.183 and oil is \$110 per barrel. It is independently estimated that within 5 years oil will reach \$200/barrel. Electricity prices track oil prices directly and so it is projected that the cost per unit could reach €0.334. According to a Bord Gais report written in 2011, fuel prices have risen by 57% since August 2009 resulting in the increases we have just experienced. Microgeneration fixes your energy costs and will become more competitive as electricity prices increase.





Our towers are custom designed hydraulically lifted monopoles providing easy and cost effective installation and maintenance. No cranes or high lift plant are required for the yearly lubrication, airfoil cleaning and inspection; the tower is simply folded safely to the ground. With its 4.25m square footprint, absent guylines, and its natural colour scheme there is minimal visual impact and loss of arable land associated with the installation.



The turbine body is steel with stainless fittings throughout and is protected by Hemptle Surface Coatings which are used on the legs of oil rigs. We follow ultra low embodied carbon manufacturing and installation processes and our blades are laminated from native cedar sourced from Co Leitrim.

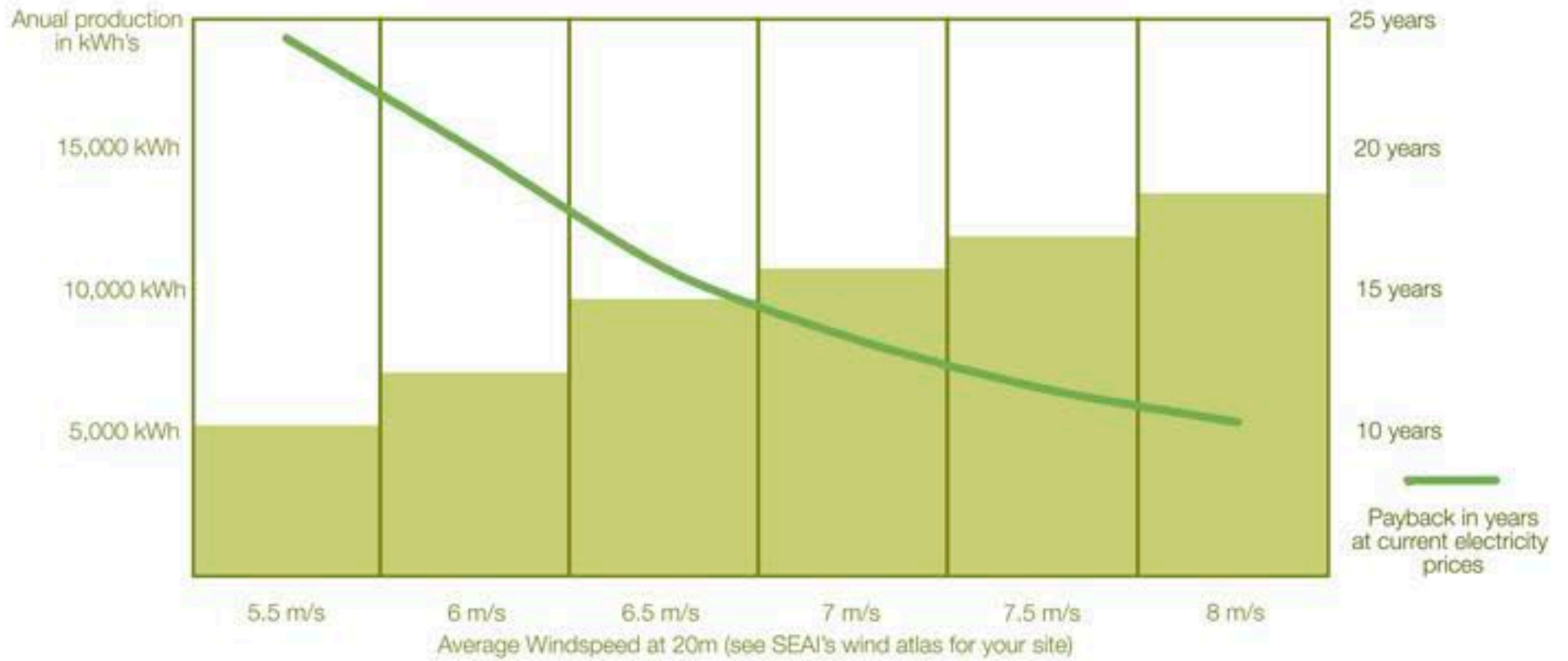
Our wind turbine adopts a direct drive pancake generator, has no gearbox and only three moving parts; the tail, yaw and rotor. Simplicity increases reliability and this fully mechanical machine has no electronics of any kind in its body. The Fluxy uses a recycled plastic tail vane and recycled materials are employed where they have no impact on safety or longevity.

The energy from the unit is fed down the tower via sliprings and an armored cable takes this to the pre-assembled inverter board where it is processed and dispatched to the grid if not utilized immediately by the user.



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Annual Yield and Approximate Payback



This graph makes the following assumptions

- Yield is assuming only 25% of the energy contained in the wind is converted to electricity
- Payback time based on receiving 19 cent per unit exported and paying 19 cent per unit imported
- The turbine carries a ten year guarantee and this chart includes an annual service charge of €250
- Our policy is to understate turbine performance rather than overstate it. We prefer that our clients be pleased with overperformance, not dissatisfied by unrealized expectations.

Turbines and towers are made entirely in Rathnew, Co Wicklow



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