

Introduction

Home Energy; decentralised power generation is now available!

Home Energy has launched a modular and expandable system of sustainable power generation for private households and small businesses. These are affordable, innovative products to generate sustainable electricity and heat, making the user self-supporting (to some extent).

We offer a large range of high-quality renewable energy products, specifically aimed at your situation and needs, including:

- Central Heating units running on biomass (wood pellets; pellets); savings around 38%;
- Solar collectors especially designed to optimize heat production even at low levels of sunlight., resulting in an annual efficiency of 70-80% (ipv andersom 80-70!) in both summer and winter;
- PV Panels: electricity generators using solar energy;
- Energy Ball V100, small wind turbine with an unique and very appealing look, very quiet and with the potential to generate up to 15% of the annual electricity need of an average household (*).

(*) figures based on average electricity usage per household in the Netherlands

Energy Ball®

Typical for this beautifully designed and very quiet Energy Ball® is that both ends of the arched rotor blades are attached to the rotor shaft, which contains an integrated electrical generator. The spinning sphere shape and the wind flows through the rotor parallel to the rotor shaft, which makes it a horizontal type turbine. This is an essential contrast to the conventional oval-shaped Darrieus type turbines.

As a result of the exceptional aerodynamic properties of the Energy Ball®, a wind flow pattern is created where the wind will first converge and then accelerate, as in rapids of a river. This so-called Venturi effect translates into more aerodynamic efficiency compared with conventional wind turbine designs.

The Energy Ball® generates power even in calm weather conditions and is therefore hardly ever idle.

The unique design makes that an energy-generating Energy Ball® is just about transparent.

The design and the performance of the Energy Ball® have been demonstrated in various test cases.

The quiet Energy Ball® is able to generate 15% of the annual electricity need for an average household.

The Energy Ball® is mounted to a 10-12 m pole, to the outside wall of a structure, or on a pole on top of a flat roof.

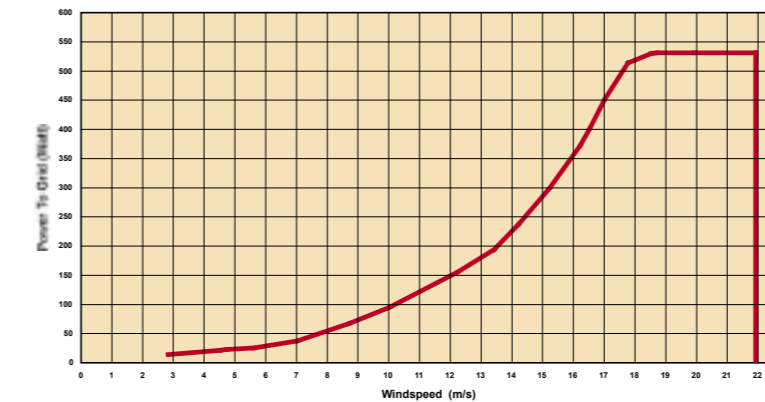
Benefits of the Energy Ball®

- Quiet
- High efficiency at low wind velocities
- Good acceptance in urban surroundings
- Attractive design
- Sound construction and highly reliable



Specifications

Powercurve V100 (Electric Power to Grid 230VAC / 50Hz)



Technical specifications

Details	Minimum wind velocity	2 m/s
	Maximum wind velocity	40 m/s
	Rotor speed control	Not required
	Measured yield at 10 m/s	100 Watt
	Maximum yield at 17,5 m/s	500 Watt
	Maximum RPM at 40 m/s	2100 rpm
	Gross weight	30 kg.
	No. of rotor blades	6
	Type of rotor blade	Glass fibre enforced polyester
	Rotor diameter	1,1 m
Spinning surface	1 m ²	
Rotor volume	1 m ³	
Brake system	None - not required	
Transmission	None - Direct Drive	
Generator	Electric drive	3-phase 12-pin brushless
	Generator type	Permanent Neodium magnetic generator
Inverter	Net voltage	230 VAC / 50 Hz

Applications

The Energy Ball® is used for decoration of public buildings, city squares and boulevards, but it also gives a positive image to residential properties and utility buildings. In this way the general public gets to know the concept of sustainable, decentralised power generation.





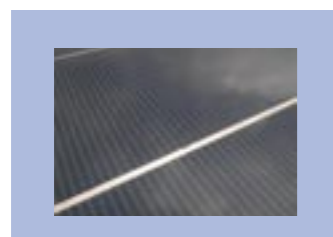
Wind energy



Biomass



Solar heat



Solar power



HomeEnergy Indicator

Home Energy

Home Energy uses an extensive and professional dealer network to provide consumers with tailor made advice and practical information on the latest available technologies and solutions in renewable energy.

See also our web site for a list of suppliers and installers.

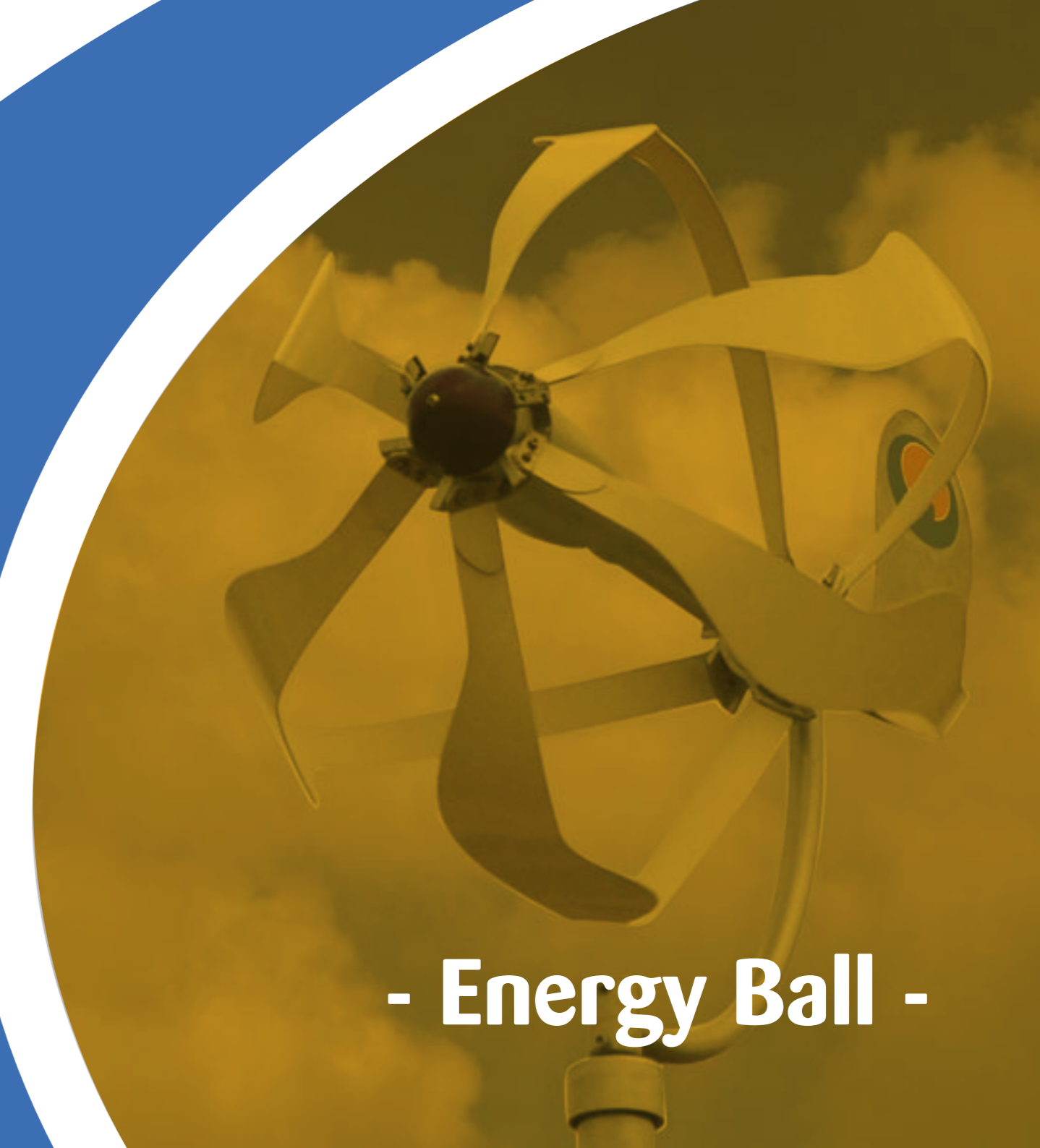
Home Energy supports local councils and authorities, not only in their efforts to apply renewable energy themselves, but also to promote and introduce the concept to their residents.

Energy saving and decentralized production of renewable energy will increase in importance in the years to come. This has been predicted by a recent British study-Potential for Microgeneration-Study and Analysis (12/2005). One of the conclusions is that microgeneration will increase its share to 30-40% in 2050 of the total electricity requirements.

Microgeneration is the collective name for a broad range of small scale sustainable and less sustainable methods of energy generation (wind, sun, biomass, micro waterpower, natural gas, etc.) Most often this is used in a combination in electricity and heat generation, energysavings measures and one or more methods of energy storage.

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