



ANSWERS TO FREQUENTLY ASKED QUESTIONS

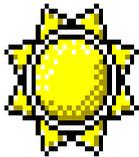
Any renewable energy scheme will be met with a whole number of reactions ranging from scepticism, or even hostility, to great enthusiasm. This factsheet will try to answer some key questions to help plan the scheme in a realistic way.

WHAT IS RENEWABLE ENERGY?

Energy which can be harnessed from a **naturally recurring resource** which is not depleted through use is known as "renewable" energy. The most commonly used forms include:

- ◆ **Hydropower** - harnessing energy from the flow of water,
- ◆ **Biomass** - energy obtained from burning, or producing fuels from animal wastes and from plant materials such as wood, vegetable oils, etc.
- ◆ **Wind power** - energy generated by the wind, and
- ◆ **Solar power** - capturing energy from the sun
- ◆ **Geothermal power** – heat from the earth

Other forms of renewable energy (which are not covered in these factsheets) include, tidal power and wave power.



Energy from the Sun

WHAT CAN RENEWABLE ENERGY BE USED FOR?

Renewable energy can be used to **fulfil all the same needs** as other forms of energy.

Energy is used in virtually all spheres of life and its availability is often taken for granted. Our need for heating, lighting, electrical appliances, industrial processes, transport and many other aspects of modern-day life all rely upon a source of energy.

Renewable resources can be used to **generate electricity** or to **produce fuels**, both of which can be used in exactly the same way as other resources such as coal, nuclear power, or gas. Renewable energy can provide power to farms, to rural enterprises, to homes and to offices. It is used for industrial processes, for **heating**, for **powering electrical machinery**, for **transport**, for **lighting** - in fact anything which requires energy.

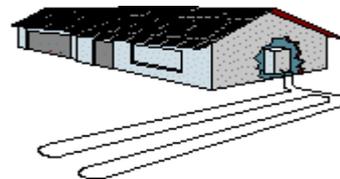


Power from the wind



IS RENEWABLE ENERGY RELIABLE?

Renewable energy is a **very reliable** source of energy. Some forms of renewable energy are, however, intermittent. For example, energy is only produced by a wind turbine when there is sufficient wind and obviously a solar panel does not produce energy during the night. Biomass, on the other hand, can be used at any time, and small-scale hydropower schemes which have a degree of water storage can generally be used as and when energy is required. Having an intermittent source of energy is not necessarily a problem. A scheme can be connected to a system which stores the energy for use when required (for example, by using large batteries); or can form part of a **system combining intermittent and non-intermittent sources of energy** to provide energy on demand (for example, by combining wind power, solar power and biomass, or by connecting a scheme to the national/local electricity grid). Most large renewable energy schemes are connected to the electricity grid.



Heat from the earth

IS RENEWABLE ENERGY MORE EXPENSIVE?

The **cost** of energy from renewable sources **has fallen rapidly** over the last few years. In rural areas which are isolated from the grid, renewable energy may well be the cheapest source of energy. The **cost** of renewable energy **varies** from region to region and from technology to technology, but there are many cases where it is not more expensive than other forms of energy. A thorough analysis of the locally available resource and the costs will need to be carried out on a **site-by-site basis** to determine whether a renewable energy scheme will be cost effective. National energy policies are undoubtedly one of the most decisive factors, particularly in terms of the structural and financial support available.

Source: LEADER European Observatory
National Renewable Energy Laboratory
www.caddet-re.org

Wood from the trees

