

OCTOBER MEETING

1st Talk

Renewable Energy in St Margaret's at Cliffe and East Kent

A talk by Alistair Gould, Chairman of St Margaret's Bay Trust
reported by Alan Lee

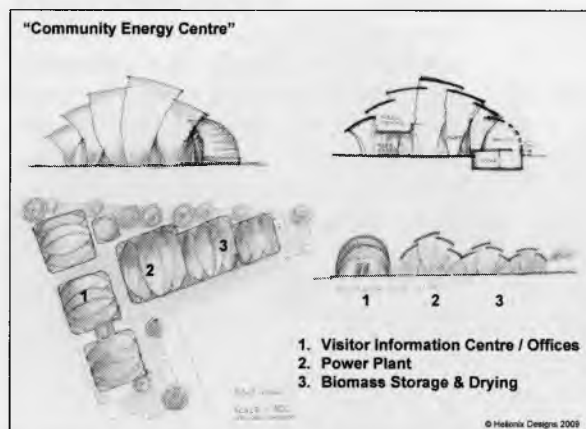
Monday 18th October saw about 40 members of the Society gather in St. Mary's Parish Centre for the first talk of the winter season introduced by Derek Leach, our Chairman.

Alistair Gould briefly outlined the formation of St. Margaret's Bay Trust by Londoner Fred Cleary, a property entrepreneur. The trust educates and connects with young children at Rippledown and The Pines Calyx. The Pines Garden provides a wide range of learning opportunities, takes its inspiration from nature and aims to educate about the environment. Rippledown is one of only three children's charities supported by the Pearly Kings and Queens of St. Pancras.

Sustainable St. Margaret's will encourage us to spend time to think about the way we live our lives and some of the challenges we all face. With climate change high on the agenda it is a little known fact in Kent there is less water available than in Cairo. By 2016/17 we will run out of landfill sites and at present we send our toxic waste 210 miles north for disposal. Other pressing problems in the village, and in the rest of the country, are the lack of new facilities, affordable housing and employment opportunities.

What can we do? We could do nothing, wait for the government to act or take on some of the responsibility ourselves. This is the most promising approach to adopt. The trust, villagers, local councils and others formed a group with the aim to become self sufficient in energy, waste and water. With this in mind a feasibility study was commissioned and a report produced by the Carbon Free Group. Another initiative is the setting up of a community land trust to acquire land and raise money for the project.

On energy the aim is to become self-sufficient and sell the surplus to the National Grid by 2012. At present in the



village there are about 1370 households and 3000 permanent residents. The electricity consumption is estimated at 8,300,300 kWh/yr. 82% from households, 15% from businesses and 3% from agriculture.

The report from the Carbon Free Group looked at various solutions most are producing electricity somewhere in the world.

Wind turbines

Four 800 Kw turbines mounted on 50 metre masts: Cost £4 million, annual income per household £519.

Two 2.3 Mw turbines mounted on 64 metre masts: Cost £4.6 m, annual income per household £717.

Biomass

4 Mw system - Cost £10 million, annual income per household £3352.

Anaerobic Digestion (AD)

100 KW AD System - Cost £540,000, annual income per household £61.

Voltage Optimisation

Unit installed which results in greater operating efficiency of electrical equipment. Cost £365,000, annual income per household £66.

Micro generation

Could be done by individual households mainly with solar panels, pay back 8 -15 years, investment return 8-12%. Lower investment required.

Tidal Lagoon

With the volume of shipping in the Channel this option was unrealistic. In 1908 George Bernard Shaw said. *If we could harness the tides there would be no need for any Englishman to ever go underground for fuel again.*

Alistair said that he prefers the smaller local systems, as they are less intrusive and less costly. As for funding any local project there are many individuals and companies in the City willing to invest.

The option that St. Margaret's has gone for is for a partnership between the Village Energy Group and Transition Power Ltd. to build a Community Energy Centre and to be operational by the end of 2012. The total cost will be in the region of £16 million. The centre to include

1) Visitor Information Centre/Offices

2) Power Plant

3) Biomass Storage and Drying Buildings

A 4.5 Mw Biomass Electricity Generator fed by a mixture of waste biomass, wood chip, miscanthus (any tall bamboo like grass) and waste agricultural biomass will power the plant. Waste biomass includes old wood, furniture etc. and will reduce demand on the need for local landfill. The estimate for the output of the plant is equivalent to 12% of DDC electrical needs. Emissions from the plant will be very low because of the high heat produced and modern technology.

The plant will be run as an Energy Services Company or a Multiple Utilities Services Company. The village will hold a large stake in either option. The information centre will be run with funding by public and third sector organisations. About 16 permanent jobs will be created by the scheme. It emerged during the talk that the National Grid is one of the least efficient in Europe. The use of a biomass generator is a proven technology with Germany having many similar size, and larger, plants already in operation.

This talk by Alistair certainly gave the audience much to think about.