

GENERAL APPROACH

SHERWOOD (United Kingdom)

12 % of the total EU energy consumption shall by 2010 be covered by renewable energy sources. This is the objective that the Community agreed on in its white book on "renewable energies". At the same time, an European-wide action plan has been set up. In order to achieve these goals, local communities do need to actively contribute to this. In Sherwood a private company, "Sherwood Environmental Village Ltd.", has been set up on the initiative of Sherwood and Newark District Council to redevelop a former British Coal land.

GENERAL ASPECTS

Sherwood is an area in Nottinghamshire, and has about 21,000 inhabitants. Major industries had included coal mining and clothing manufactures, but these industries are in decline. Other industries include agriculture, pine manufacture, food production and other manufactures carried out by mostly small to medium sized enterprises.

Sherwood also attracts visitors as it is the home of the legendary Robin Hood and the famous Sherwood Forest.

Climatic data:

Degree Days (Basis 15.5 °C): 2590

Annual Mean Temperature: 8.0 °C



CONTEXT

In 1981, more than 60% of the male population in the Ollerton Area was employed in the energy and water industries (mainly in coal mining). The area remained dependent on mining despite the loss of nearly 3000 jobs. By 1991, the number of employees still represented 42% of the employment. When the pit closed, in 1994, unemployment, in some parts of the town, went up 35%. Economic difficulties can often translate into social problems rising up immediately.

At Ollerton, people recognised that social problems would be barriers to the kind of inward investment that was needed. They agreed that the colliery site should be cleaned up and then put to use for a more sustainable development. As part of the effort to fight the pit closures, local people had set up the Ollerton & District Economic Forum (ODEF). ODEF has become an active and well supported community organisation bringing together people from business, based groups who are committed to the economic regeneration of Ollerton and the surrounding area. ODEF sees both community involvement and a better physical environment as key ingredients in achieving a more sustainable local economy. In the Sherwood area, a co-operative business, known as Sherwood Energy Village, has been established by community activists within the Newark & Sherwood district to redevelop a former British Coal colliery site.

EXPERIENCE OF SHERWOOD

When Ollerton colliery was flattened, it left behind approximately 37 hectares of brown field site surrounded by further approximately 65 hectares of tips. A public meeting decided to acquire the site from British Coal. With coal gone, local people wanted to maintain the links with energy production at the site by developing renewable power generation and energy efficient housing. This was the starting point for developing "Sherwood Energy Village".

The aerial view of the site taken over the biggest tip is shown to the right. The development land, indicated by the green outline, is approximately 37 hectares. By finding an innovative re-use of a derelict brown site, the Society is providing an opportunity for ethical inward investors to build without cutting into valuable green belt land. The development is incorporated into the local planning scheme.

Sherwood Energy Village will include:

- ❑ Biomass power generation, renewable energy utilisation
- ❑ Sustainable development, ethical business.
- ❑ Clean industry, energy efficiency best practice.
- ❑ Exhibition and convention centre, showcasing clean technology.
- ❑ Energy efficient, self build and autonomous housing.
- ❑ Eco-demonstrator houses.
- ❑ Gentle recreation and leisure.
- ❑ Energy Trail through site.
- ❑ Permaculture, organic produce outlets.



The vision has been defined and developed from the ideas originating from community consultation, that concluded that any future development on the former colliery site should bring employment back to the area and should be clean and realistic in expectations. Built on environmental, economically ethical and sustainable principles the initiative will create jobs from the energy and environmental agenda.

The **Biomass Power Plant** will provide heat and electricity to the local communities Ollerton and Boughton and the site itself in a scheme that will involve community ownership after development phase. It will use warranted technologies and has a secured 15 year fuel supply. The size of the plant will be about 6 MW_e and 15 MW_t and it will utilise pyrolised wood oil. It is expected that the power plant will be operational by the year 2002.

Housing on site will comprise 24 self-build in a scheme linked with construction training and with labour equity built in to rents. This is important in an area of housing shortage, particularly for younger people. There are plans for 12 autonomous houses, self sufficient for energy, water and sewage. There will be social housing, 24 energy efficient and affordable houses for rent. Three Eco-Demonstrator houses will be a visitor attraction and will demonstrate the latest building technologies. With the domestic sector responsible for 30% of UK CO₂-emissions, the impact of sustainable housing would, in time, be considerable. If houses were built to the autonomous standard there would be additional benefits in terms of

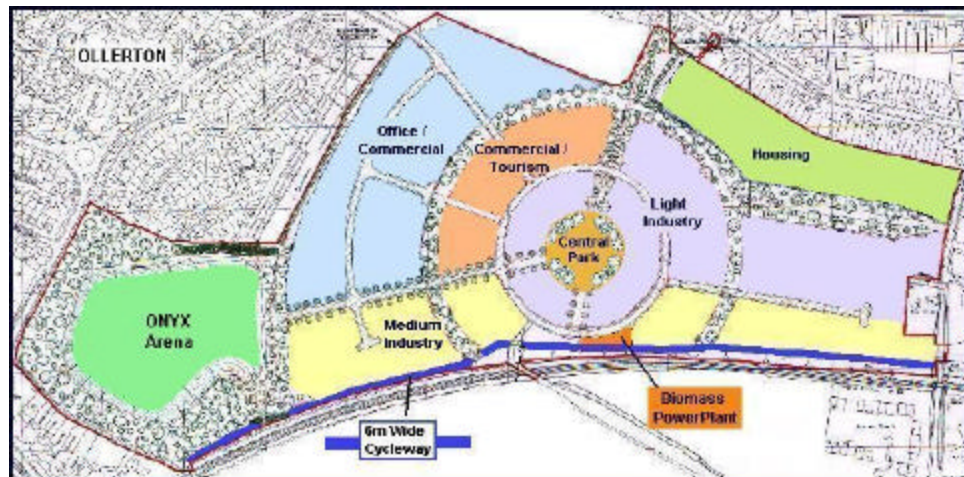
reduced developmental pressures on existing infrastructure and treatment systems. A house built to the autonomous standard is likely to use about 2,100 kWh per year, and will need a 2.8 kW_p photovoltaic array to satisfy this demand. Similarly, water use in a conventional UK household is 145-180 litres per head per day, whereas in an autonomous house it is 34 litres per head per day. Even allowing for the water used for toilet flushing, consumption in an autonomous house is less than a third than that of a conventional household. Further benefits relate to the minimal running costs of the house - no water or sewage charges and no, or low, fuel bills, along with a protection from future price increases in servicing costs, thereby promoting a greater sense of security.

Industrial and Commercial units will be built to best environmental standards. There is the capacity to provide the locally needed 450 m² units. The industrial sector of the site is close to the railway line that runs through the site. There is plenty of scope for ethical inward investment. The industrial sector of the site will be generously landscaped and will be an attractive place to work. The Sherwood Energy Village will encourage community start up businesses, small craft workshops and incubator units for fledgling innovative industries to start trading from Sherwood Energy Village. There is scope for the development of community businesses based on a partnership with local farmers prepared to produce fruit and vegetables organically for sale directly to the public via a “good food box” distribution scheme. The potential development of the existing mineral railway through Ollerton, including the opening of a passenger station on the site fits in with the campaign to have rail services on the Robin Hood line between Nottingham and Worksop extended to serve Ollerton. Transport is an important factor in economic regeneration of Ollerton, which is 10 miles from the nearest big town. A survey of people aged 18-24 looking for work in North Nottinghamshire found that 46% of them thought transport was a key barrier to finding work

An **Exhibition/Convention Centre** will link to research and development institutions, will promote renewable energies and will act as an Environmental Technology showcase. Conference facilities with accommodation will facilitate international events. The centre will have educational visitor attractions.

The **Energy Trail** will take visitors on a gentle stroll around the site. It will show examples of stand-alone renewable energy features such as illuminated interpretation boards and lamps.

Landscaping will include plants that can withstand drought conditions, plants grown as fuel crops and others that attract birds and insect life. The Energy Trail will link to other trails across the former colliery tips, already reclaimed and planted.



Ongoing work will examine wind turbine development, an electric minibus service on site, development of a water strategy and looking at partnerships with local organic growers and farmers.

Sherwood Environmental Village Ltd. was initiated by local people in the area. This initiative is a good example on what local communities can do to regenerate their towns and

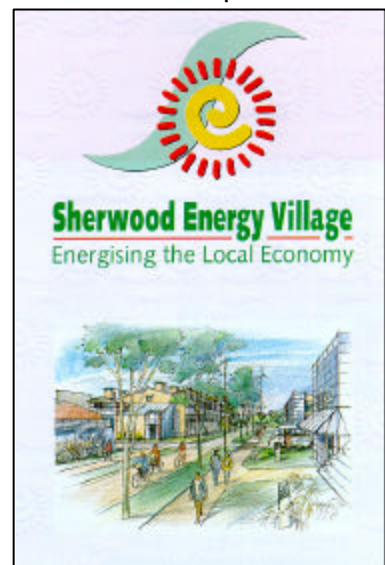
villages. Sherwood Environmental Village Ltd. was founded as an Industrial & Provident Society (IPS). This means that the society - which is open for everyone - operates for the benefit of the community with limited liability. Members of Sherwood Energy Village can have a say in the initiatives policy making process, through the annual meetings that take place with one member one vote, to ensure a democratically run organisation. Members also receive a share certificate and regular newsletters and mailings. This investment will enable the Society to develop the 91 acres of land to become a economically and environmentally sustainable mix of energy efficient industry, recreation, education and housing.

EVALUATION AND PERSPECTIVES

The next stage of development is the land reclamation due to start soon. This will take up to eighteen months to complete and will feature a central serviced loop road from which the different facts can start to be built. Funding has been obtained from the European Union Objective 2, Moynihan money and English Partnerships.

The current situation can be shortened as follows¹:

- ❑ An Industrial & Provident Society, "Sherwood Environmental Village Ltd.", owns the land.
- ❑ Land reclamation started in January 2000, and will take 34 weeks.
- ❑ Reclamation, landscaping and planting of surrounding tips has already been undertaken in a scheme in keeping with the master plan for the main development site.
- ❑ Sherwood Energy Village has been included in the local planning scheme.
- ❑ Partnerships are in place with external partners.
- ❑ Significant investments by private sector partners.
- ❑ The biomass power plant will be operational by 2002.
- ❑ Significant public consultation and community backing.
- ❑ Clear vision and a pragmatic approach are keywords.
- ❑ Best practice use of brown field site.



FOR FURTHER INFORMATION

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¹ The 1st of April 2000

