# INSPIRING CHANGE WITH PEOPLE AND COMMUNITIES

## National Communities Resource Centre, Trafford Hall

*Source: NCRC*

*The National Communities Resource Centre (NCRC) offers training and support to people living and working in disadvantaged communities through the country. They run training courses from Trafford Hall, their home in the Cheshire countryside, which has been constructed specifically with the environment in mind. Managing Director Mark Ward tells us more:*

**What does "sustainable development" mean to you?**
Although the full answer could be extremely long, I would say that sustainable development means maintaining and improving the quality of life for all without damaging the environment through polluting it, or mortgaging the future through reliance on finite natural resources.

**The reconstructed stable block incorporates many recycled materials, and it is now carbon-neutral in its energy usage. Why did you decide to rebuild the stable block as such?**
NCRC has always had a strong commitment to the environment and moreover, wants to demonstrate its ethos by acting as a model for sustainable development. Since we began to re-build Trafford Hall in the early 1990s, we have tried to demonstrate that growth can be achieved with minimal resources. In re-building the hall itself, we reused and recycled as much of the fabric of the building as possible.

We elected to use the Walter Segal self-build method which uses repeating patterns of wooden frames and can be constructed using unskilled labour. We were therefore able to build the bedrooms using almost entirely volunteer and trainee labour. The building process itself served as a training and development tool for young unemployed people from Cheshire. The buildings have turf roofs, which

not only replaced the grass we had to strip to build them but also helps them 'sink' into the rural landscape.

When we came to build the stable we wanted to go one step further and build a completely carbon neutral building, modelling as many renewable technologies as we could on a budget. Space heating and domestic hot water are provided by combining south facing solar water collectors on the roof with a wood pellet boiler. We use low water systems in toilets and showers and heating is carried through underfloor pipes. We minimise heat loss by using heat exchange ventilation. All Trafford Hall's electricity is supplied by Good Energy, which is guaranteed to be from 100% renewable sources. We used only environmental paints and stains throughout and recycled as much of the original brick and stone as possible for either 'facings' or in landscaping.

*Source: NCRC*

**Was the planning and building process more expensive or difficult than a normal building? What lessons did you learn along the way?**

YES! Planning was complicated by a number of factors. Trafford Hall is a Grade 2* listed building, which meant that Listed Buildings consent and consent from English Heritage were required in addition to planning permission. As we learned more about sustainable building, we modified the plans to make the building more efficient. The upshot was that planning took twelve months of detailed negotiation. We then suffered a number of complications which delayed the construction process. However, these issues were not connected to the sustainable nature of the building.

The renewable technologies were very expensive compared with 'traditional' heating equipment and there was a lack of understanding from 'standard' plumbers as to making the systems work together.

Despite all the problems, our heating bills are far below what we would expect using gas, or oil and whilst it will take a long time to re-coup the cost from savings, we knew this at the outset and did it as an example, rather than a money saving exercise. We received a Clear Skies grant from BRE and DTI, which covered 50% of the cost of renewable technologies.

There has been an associated benefit to the stable's build. The extra capacity has enabled us to take on more conferencing work, from which we derive income. Since opening in April 2005, we have taken over £200,000 of income, which we could not otherwise have taken, and 6% of all our commercial income in the past year came from customers that chose Trafford Hall specifically because of its environmental credentials. Lastly, we have won four awards in the past year connected with the stable and its eco-credentials. These are fantastic PR for our organisation and another benefit of our approach.

**Why is it important for Trafford Hall to be an eco-friendly building? How does it fit into your community-based work?**
I believe that real impact on climate change will only come through governments and nations taking action. However, governments are driven by public opinion and a groundswell of people demanding action on climate change is needed to move policy in that direction.

Trafford Hall works with people that live and work in the most deprived communities in the UK. It is widely acknowledged that deprived communities do and will suffer most from the effects of climate change. We believe that we should act as a model to those communities, in which we work, to show what can be achieved and to complement our models with training and small grants to promote and support small-scale practical action that real people can take at a local level.

**Does NCRC have other environmental policies?**
Yes, lots:

- We recycle paper, cardboard, glass, printer cartridges
- We manage our grounds (15 acres) organically
- We compost waste food and in turn, we produce crops in our gardens to serve to customers in our restaurant
- We have water butts to collect rain water for our gardens
- We have lighting on timer switches and controlled by Passive Infra Red detectors to minimise use
- We use window shutters to reduce heat loss at night
- We use energy saving light bulbs wherever possible
- All our computers are set up to switch off in the evenings
- We re-use water cooler bottles as cloches in our gardens
- We replaced all the building's baths with showers
- We use recycled paper, envelopes, etc
- We provide customers with pencils made from recycled CD cases
- We plant trees to offset carbon and allow customers to purchase trees for that purpose
- We maintain habitat piles in our woodland to encourage and protect wildlife
- We use fair trade goods where possible
- We try to source local produce and local suppliers
- We use paper that has already been printed on one side in our fax machines
- We promote car sharing and public transport to our staff and users
- We offer interest-free loans to staff that want to buy bicycles to travel to and from work
- We offer financial support to staff that want to use public transport to get to and from work

**What's next for NCRC?**
We have recently commissioned a pre-feasibility study to consider the potential for making the whole Trafford Hall centre carbon neutral. We are specifically considering a number of potential technologies: ground source heat pumps; wind turbines; and bio-fuelled micro combined heat and power plants.

We intend to commission a full feasibility study shortly and our aim is ultimately to achieve zero carbon status for the premises and then consider carbon offsets for the journeys people make to get here.

**Facts**

- Energy efficiency should always be the first step in any project – reducing demand before thinking about producing energy is by far the most cost effective way to save money and the environment.

- A correctly-sized solar water heating system situated on a south-facing, unshaded roof will produce between 30-50% of a domestic property's hot water needs. (*Source: Energy Saving Trust*)

- Wood fuel is a great renewable source of energy and a boiler works in a very similar way to a conventional gas or oil boiler. The pellets are a uniform size so they are very easy to use and work well in automated systems. Wood pellets are made of compressed sawdust – this means they hold more energy per weight than logs or woodchips and take up less space (*Source: Forestry Commission*).

- Purchasing timber grown in the UK reduces the energy used in transportation from other countries and in the total energy consumed in the associated processes, and stimulates demand for 'home-grown' timber.

- Lighting accounts for around 580kWh of electricity a year. Energy saving light bulbs generally use one 1/5 of the energy of standard light bulbs and thus could reduce your electricity bill by 464kWh a year. This amounts to a potential saving of around £60 a year! (*Source: Energy Saving Trust*)

**Further Resources**

- For information about timber frame buildings, visit the Walter Segal Self Build Trust website at www.segalselfbuild.co.uk.

- The Low Carbon Buildings Programme is a government grants scheme designed to support renewable energy installations for domestic, community and business properties. For more information, visit www.lowcarbonbuildings.co.uk or call 0800 915 0990.

- Solar Trade Association promotes the use of solar technology and encourages excellence within the UK solar energy industry. You can find them at The National Energy Centre, Davy Avenue, Knowlhill, Milton Keynes, MK5 8NG. Call them at 01908 442290 or email enquiries@solartradeassociation.org.uk or visit their website at www.solartradeassociation.org.uk.

- The Log Pile website promotes wood fuel in the UK. Visit www.nef.org.uk/logpile. They are based at The National Energy Centre, Davy Avenue, Knowlhill, Milton Keynes, MK5 8NG, Tel: 01908 665555.

- For further information about energy efficiency in domestic properties, contact your local Energy Efficiency Advice Centre at 0800 512 012 for businesses. The Carbon Trust also provides this information if you call 0800 58 57 94 or alternatively you can visit their website at www.thecarbontrust.co.uk.

- To find out more about energy projects for your community including funding support, training, contacts, advice and more case studies - contact the Community Action for Energy Team (CAfE) at 08701 261 444 or email CAfE@est.org.uk or visit their website at www.est.org.uk/cafe.