



Photovoltaic Panels for the MKA Healthy Living Centre

When their building fell into disrepair, the Muslim Khatri Association took the opportunity to refurbish it in as environmentally friendly way as possible, while improving the centre's educational and social facilities. To this end a solar PV installation was chosen, along with energy efficiency measures such as low-energy lighting, wall insulation made from sheep's wool and a heat recovery ventilation system.

When did this project begin?

Work to refurbish the centre began in 2002 and the photovoltaic system was switched on at an event in July 2003.

Who was involved?

The Muslim Khatri Association (MKA), a registered charity, runs the community centre. Initially set up to preserve cultural traditions the centre now provides a wide range of activities for all. These include health initiatives, day care facilities for the elderly, youth clubs and courses to develop education and skills. The MKA's management committee of 15 people includes centre users, local residents and local business people. The centre also has over 25 volunteers.

The solar installation was carried out by Sundog Energy, a Cumbria-based renewable energy system installer. DEK Architects developed the renewable energy plans for the site.

How was it funded?

The Community Chest funding programme paid for the architects to undertake community consultation and draw up the initial plans. The overall cost of the PV installation was £36,909, half of which was funded by the DTI's PV Grant Scheme, which covered systems of between 0.5kWp and 5kWp. Funding for the metal framework for the PV panels and for the insulation of the building came from a local Single Regeneration Budget (SRB). Matching funding was secured from the Waste Recycling Environmental Network (WREN) and the Neighbourhood Renewal Fund. MKA volunteers also organised a number of successful local fundraising initiatives.

What were the targets and aims?

The MKA's aim was to raise awareness of green issues among the local black and ethnic minority community, while improving the area's educational and social facilities. It also hoped the centre would be recognised as an example for others, an ambition achieved when it was awarded the Leicester Environment City Buildings Award.

How was it implemented?

The original idea for turning the MKA building into an eco-community centre came about when families on a centre daytrip saw a video about the EcoHouse, Leicester's environmental showhome. This led to more than 100 centre users asking the MKA management to consider how the centre could adopt some of the ideas outlined in the film.

A special planning and fundraising subgroup was set up and architects appointed to carry out a three-month community consultation and assess the feasibility of various options. The solar panel proposal was initially ruled out because the centre is in a conservation area where structures of this sort are normally not permitted. However, local residents successfully lobbied the planning authorities to remove the centre's conservation status, and after six months planning permission was given.

The association submitted funding applications and also began fundraising in the community. Several tons of second-hand clothes were collected and sold, and a series of social events were staged to promote the centre's green plans and to raise money through jumble sales, face-painting, sports fun days and food sales. These activities, along with the SRB funding, paid for new low-energy lighting, wall insulation and a heat recovery ventilation system, installed at a low cost by using local skilled people and volunteers.

The PV Grant Scheme provided a list of installers, seven of whom were asked to provide surveys and quotations, with

“ We had to start by changing people's perceptions, which can be very difficult if the environmentally-friendly option costs more. We realise we cannot change everything overnight, but slowly, slowly we are moving towards our green goals ”

Yahya Thadha, Project Manager, MKA Healthy Living Centre

Sundog Energy winning the contract. Approval of the PV grant was received in February 2003 and work began almost immediately, with three installers taking two days to complete the work. Sundog dealt with the paperwork for the Distribution Network Operator. The PV system was officially switched on in July 2003 and, as the East Midlands' largest PV installation on a community centre, received a great deal of local media interest. The centre also sent out press releases, including one during 2003's heatwave when they publicised how the centre was generating so much excess electricity that it could potentially be sold to generate income for the centre.

The centre now has regular open days, attended by people from all over the UK, as well as local schools and youth groups.

Achievements

- the centre fitted a roof-mounted BP5170 photovoltaic array, using monocrystalline type panels (the most efficient). The panels are rated at 4.76kWp (peak kilowatts) and this will generate approximately 3570kWh of electricity each year, meeting 100% of the building's electricity needs during the summer and around 80% in the winter
- the centre will save approximately 1535kg of carbon dioxide and shave £1200 off its annual fuel bills
- most centre users have reported a huge difference in the warmth and comfort of the building
- users are able to see the technology in action and consider applying it to their own homes. There has been a rise in energy saving awareness in the neighbourhood with 78 residents undertaking insulation or other low energy measure in their home
- the centre has won four awards in recognition of the PV roofing including a Leicester Environment City Buildings Award, a Queen's Golden Jubilee Award, The Green Life Award and the Regeneration East Midlands best self-sustaining community centre
- To date (summer 2006) there have been 181 local, regional and national visits to the centre many of which were initiated by this case study. From these, nine other community organisations have been inspired to do similar work, five of which are black and minority ethnic groups

Four key success factors

- 1) the efforts and determination of committed volunteers, along with the backing and support of the centre users and local residents
- 2) a goal and vision that was realistic and achievable
- 3) a willingness to be innovative
- 4) celebrating success together at each and every stage.



Among the many visitors to the MKA's renovated community building was HM The Queen

LESSONS LEARNT

- 1 if given the chance again, the association would consider including wind power in their scheme to provide electricity during the night time in addition to the power generated during the day from the PV panels
- 2 environmentally-friendly measures may cost slightly more than conventional ones (although in many cases they cost less), but the savings and the positive environmental impact are enormous
- 3 don't give up! Where there is a strong will to make your project happen, there is often a solution
- 4 go for it! The MKA started off knowing nothing about renewable energy, but succeeded in the end.

Next steps

The association's aim is to become the first fully developed eco-community and healthy living centre. It will continue to improve the facilities, incorporating environmentally-friendly options at every opportunity, including, it is hoped, a small wind turbine and a rain water collection system for flushing the centre's toilets. Enquiries are also being made into suppliers who could buy the excess electricity generated by the centre.

The association is now helping two other community centres with environmentally-friendly refurbishments and, through open days and presentations, is acting as a demonstration project for other interested organisations.

For further information about this project contact:

Yahya Thadha
Project Manager, Muslim Khatri Association
Highfields Healthy Living Centre,
1 Connaught Street
Leicester LE2 1FJ

tel 0116 221 0010
email yahya@mka.org.uk
web mka.org.uk

MKA is a member of the **Community Action for Energy** network. Community Action for Energy (CAfE) is an initiative of the Energy Saving Trust that promotes and facilitates local community based energy projects. This case study is one of a series showcasing the most exciting and innovative of the 2500 projects that are part of the CAfE network.

Community Action for Energy,
The CREATE Centre,
Smeaton Road, Bristol BS1 6XN

tel 08701 261 444
fax 0117 929 9114
email cafe@est.org.uk
web www.est.org.uk/cafe