

GENERAL APPROACH

LEICESTER (UNITED KINGDOM)

Even the best technologies will not be sold or applied if people do not know much about it or if they doubt its efficiency. This is even more the case for newly emerging technologies where the way it works needs to be proven and made known. In order to raise awareness for renewable energy sources, a city can use different methods; like set up of information campaigns, finance pilot installations or subsidise its inhabitants when they install renewable energy installations. But there are still more subtle methods like teaching in schools, or set up of organisms that do awareness raising campaigns. The city of Leicester has done many innovative activities of this kind.

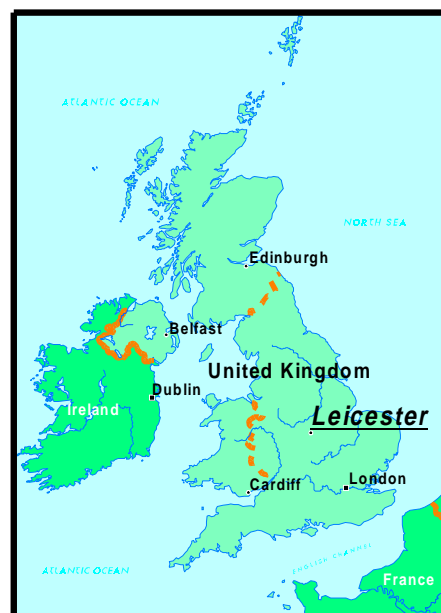
GENERAL ASPECTS

Leicester is situated in the middle of England in the county of Midland with a number of approximately 280,000 inhabitants. The city was founded by the Romans and was later controlled by the Vikings. Today, Leicester is a centre for the railway-, clothing- and electric industry. Two large university's are situated in the city as well. Leicester has, like Birmingham and Nottingham, a "unitary status" which means that the power of the central administration in the city is greater than in other cities in England.

Climatic data:

Degree days (basis 15.5 °C): 2,570

Annual mean temperature: 10.5 °C



CONTEXT

Leicester City Council has in many years been active in the energy and environment matters. Already in the 1970-ies,(after the first oil crisis) the city created a comity with responsibility to take a closer look at the solutions. In 1983, "Leicester Ecology Trust" was founded. The objective was to re-develop non-urban areas. In 1990, the city was designated as UK's first environmental city. Since then, Leicester has achieved a reputation for being the city of promotion and development of sustainable policies.

In the "Written Statement" from December 1994 (The Local Plan for Leicester) it is put clearly that the city council, as a local planning authority, is committed to the designation of Leicester as the first environmental city.

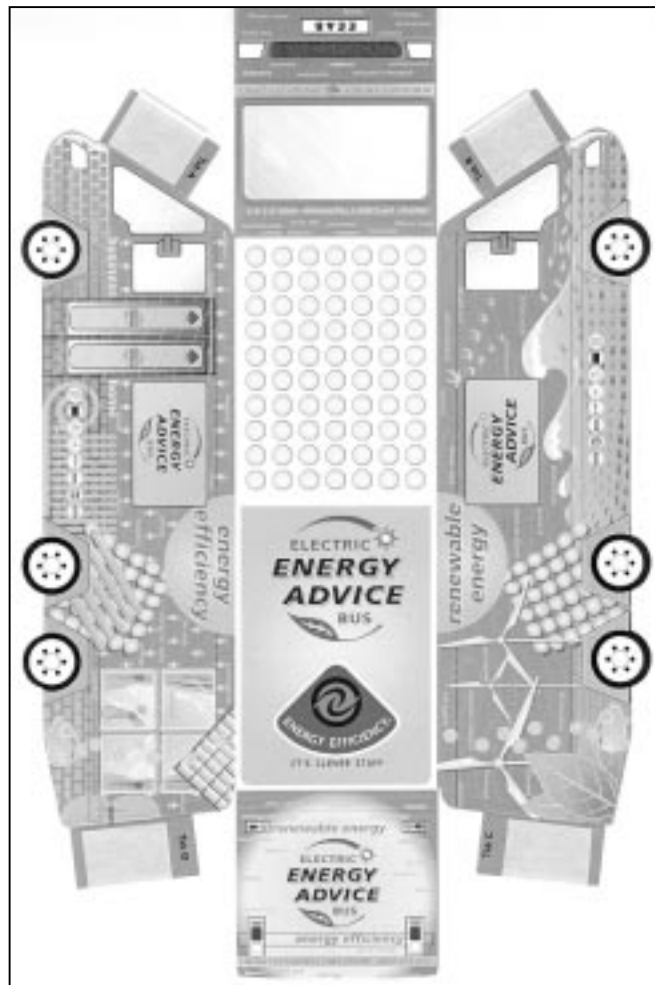
Leicester began working on a local Agenda 21 plan in 1994. The plan consists of many aspects including all citizens. It is stated how things could be done and how to make the citizens participate. It is important to understand that nothing can be realised without local commitment – in means of not only the City Council but all the way down to the very citizen. 15 different indicators has been chosen to monitor the state of affairs in the Agenda 21 work. This includes crime rates, pollution, unemployment and so on.

EXPERIENCE OF LEICESTER

Leicester City Council's activities concerning renewable energy sources (RES) are partly aimed at actual installing of RES-installations. But the large share of its activities concern "awareness raising campaigns". These are dedicated to a very large public and also to very different target groups.

Information and educational measures

A means of RES information that has been put into service quite recently is the "energy efficiency bus". This bus is going to different sites in Leicester, among them small and medium sized enterprises, domestic dwellings and schools. It is equipped with solar panels and is recharged during night time with electricity coming from RES. Being conceived as an interactive means, the bus is connected to the internet and supplies its visitors with actual data on traffic and pollution in Leicester. It is also intended that other cities can talk to the bus via the web sites and become involved with projects in real time with the Leicester schools. To the right a cardboard cut out of the bus is shown. This is given to the small school children in order to make them gain knowledge of the bus' existence.



The local energy agency in Leicester tries to set up measures in the field of sustainability and lasting ones in Leicester's schools. The change in the statute of the City of Leicester (becoming a unitary status) enabled the agency to develop contacts to the schools and jointly set up energy efficiency measures.

Some national programmes also help them in setting up measures; a state aid of 50 % for energy efficiency investments, that can go up to 6,000 Eur or schemes for the energy savings made. These measures include feasibility studies, the follow up of energy and water consumption, the distribution of documentation for teachers, software and a homepage on energy subjects.

In general it is foreseen, that by motivating young people to good environmental manners, they will retain this all their lives. Working with schools in Leicester, the Energy Efficiency Centre which is partly funded by the European Commission (SAVE-program) and partly by Leicester City Council, has introduced three main themes:

1. Improving the Building Energy Efficiency Standards,
2. Introducing Energy Wardens within the schools,
3. Introducing an Energy Education Package for teachers and students.

Within item 3 is a combination of all three actions and the specific involvement of students to help implement monitoring of their own school. Combined with the "energy efficiency bus" it allows schools from all Europe to visit Leicester in real time.

Plug into Green Energy

But the activities are not only restricted to schools and school children. There are many campaigns which are dedicated to inform all the inhabitants of the city – both on RES and general energy efficiency measures. One example is the "plug into green energy"-campaign, which promotes green electricity and suggests the citizens to apply for green electricity only. All this work is taken care of by Leicester's Energy Efficiency Advice Centre.

Realisations

In order to give an example of the use of RES (their practicability and feasibility) Leicester City Council has installed different types of solar energy in the city. In January 1997 a classic solar collector was installed on the City Council office building "New Walk Centre". The investment was approximately 19,000 Eur and this investment saves yearly 4,200 kWh. It has since 1998 been gained that the New Walk Centre is supplied 100% with electricity based on renewable sources from the East Midland Electricity/PowerGen.

This is a large step in the city council's intention of supplying the city with 20% green electricity in the year 2020.

In 1997 the old boiler supplying the large office building of the city council called Phoenix House with hot water were subject for replacement. A solution containing a low NO_x-fired condensing gas boiler combined with a solar collector were installed for a price of approximately 30,500 Eur. The annual gas bill has, because of that, been reduced by about 2,100 Eur corresponding to a saved CO₂ emission of almost 18 tonnes.

But Leicester City Council's activities does not stop with informing the city's inhabitants – it also tries to influence country wide political decisions. In order to do so, Leicester City Council took part in the foundation of an organism called Midland Renewable Energy Technology Transfer, MRETT, founded in 1996. This association now consists of more than one hundred different members. The initial idea was to bring together the research experts of different universities in the area in order to disseminate information about RES. Evidence of this are the many seminars that MRETT is offering. These concerns for example sustainable housing. Another active is the regular publication of a newsletter called "Renewable Energy Prospects"

But today, MRETT's activities includes much more than only information campaigns. MRETT also does lobbying with British Governmental Institutions.

PLUG INTO GREEN ENERGY

AS PROMOTED BY THE FRIENDS OF THE EARTH
THE LEICESTER ENERGY EFFICIENCY ADVICE CENTRE
A ENERGY AGENCY HAILE ADVICE FORCES TO HELP
YOU... **PLUG INTO GREEN ENERGY**

THE CHOICE IS YOURS
From 1999 you will be able to use your consumer power to purchase electricity generated from renewable sources such as the sun, wind and waves as well as energy efficiency packages. You will no longer be obliged to contribute to all the environmental problems associated with conventional electricity such as Climate Change, Acid Rain and Radioactive Waste.

WHY NOW?
1999 sees the end of a long period of changes in the UK energy industry since privatisation in the 1980's.

WHAT IS IT ALL ABOUT?
Put simply, it means that the electricity and gas suppliers will be competing for your custom in an open market.
You will no longer have to buy your electricity from your current supplier.
You will be able to buy from any supplier in the country.
And your gas too!
This is a unique opportunity to reduce your personal impact on the natural environment and switch from polluting electricity generation to clean, abundant renewable energy.

CONTACT US NOW!
We can put you in contact with companies who realise that the way forward is clean, renewable energy & energy efficiency.
We are at:
2-4 Market Place South, Leicester,
LE1 5HB. Tel: 0116 2395146

Leicester Energy Efficiency Advice Centre

Finally, MRETT now tries to set up a programme called "LGA 1000 solar roofs project". This project aims to install 1000 photo voltaic roofs on local authority buildings all over England in the next two years.

Last but not least, MRETT's own office is a good example of the feasibility of all kinds of RES-installations. The building is an old farmhouse in Loughborough, about 15 kilometres away from Leicester. The building has been totally renovated and the overall demand for energy is now 100 kWh/(m²a), which is quite low. The building has among other features been equipped with:

- ⊖ a passive solar heat collector,
- ⊖ low energy lightning,
- ⊖ passive cooling,
- ⊖ extensive insulation,
- ⊖ low energy windows,
- ⊖ a solar energy powered air condition system,
- ⊖ use of rain for watering.



The picture to the right shows the building with the PV-panels just under the roof. The total heated area is 105 m².

EVALUATION AND PERSPECTIVES

United Kingdom, as a country with a very early liberalisation of the energy market and few sympathies for state subsidies funding large projects, does not give the best conditions for implementation of renewable energy sources. Thus, Leicester City Council aims at a strategy that rather insists on informing, promoting, giving good examples and lobbying. Now, they go further and expand their activities and show good examples of use of RES; like the "LGA 1000 solar roofs project". Having in mind that the climate for renewable energies in United Kingdom is not the best, are the activities done by Leicester City Council remarkable.

FOR FURTHER INFORMATION

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