

An Energy Policy for Warwickshire County Council Properties (adopted October 2001)

1. Introduction

The economic and social transformations that have taken place in the UK over the last two to three hundred years have been founded on the simultaneous development of energy systems and increasing consumption of finite material resources.

Growing populations induced revolutionary changes in agriculture and industrial techniques to cope with the escalating demand for commodities. Power driven machinery, urban growth, improved transportation; better communications and global commerce have changed the culture of contemporary society. As the social system became more complex, needs increased and expectations grew, stimulating additional technical innovations, medical advances and better education. These have improved standards of living, further increasing the population and the demand for high quality energy sources.

The continued increases in energy consumption and economic growth have not been without impact. Combustion of fossil fuels and nuclear power have created environmental problems on regional, national and global scales and caused concern about sustainability for the future. International co-operation aimed at limiting these problems has resulted in many initiatives in the UK to encourage resource efficiency and diversify the energy mix to include renewable and sustainable energy supplies.

Through Agenda 21, Government's pledge to introduce policies for sustainable development and to reduce greenhouse gas emissions. Around two-thirds of Agenda 21 requires action by Local Authorities. Local Authorities determine social and economic infrastructures, oversee the planning process, establish local environmental policies and regulations and assist in implementing national and regional environmental policies. Local Authorities, as the level of governance closest to the public, can play a vital role in providing information, raising awareness and promotion of sustainable development issues.

Although the contribution possible by individual areas is small, each area has a role in contributing to regional, national and international objectives. Global sustainability will only be achieved by a large number of local initiatives.

The County Council adopted its LA21 Strategy in December 2000. The strategy is divided into ten cross cutting themes designed to highlight the interdependence of the environmental, natural resources, social and economic elements of sustainability. The proposed energy policy for Warwickshire County Council would contribute to a number of themes including: putting sustainability at the heart of County Council decision making; managing the environmental impact of County Council actions; the careful use of natural resources; and raising awareness of sustainable development. The importance of the Council's energy use is highlighted in the strategy under a number of suggested actions. This is reflected in the identification of County Council energy use as one of its headline indicators. As a consequence, an Energy Policy for

the County Council is central to implementing the County Council's LA21 Strategy and moving it towards sustainability.

1.1. Criteria for Sustainability

Concern for the environment and a serious commitment to sustainable development determine that a move from the uncontrolled use of the cheapest possible energy supplies, regardless of environmental damage, to the controlled use of cleaner, more environmentally friendly energy supplies is required. For WCC properties, investment decisions based on 'Best Value' and whole life performance are more likely to save on costs in the long run and reduce unplanned expenditure.

The criteria for successful measures that could contribute most in the long term to a more sustainable energy system and combat climate change are:

- They should seek to minimise economic and environmental costs over their lifetime.
- They should be cost effective.
- They should improve resource use efficiency.
- They should be able to be implemented relatively quickly.

1.2. Energy Efficiency

Long-term reductions in carbon emissions need to be based on a reduction in the use of all carbon fuels. Economic recession and fuel switching has resulted in reductions in carbon dioxide and other environmental emissions in the UK. Continued reductions in emissions will require changes in the use of energy by final users.

1.2.1. Reducing Electricity Demand

The environmental benefits of reducing electricity demand are greater than for other fuels as the conversion from primary fuels to delivered energy is an inefficient process.

Conservation and improvements in energy efficiency are the most economic and cost effective way to reduce electricity demand. The physical laws of nature limit technical improvements, however, there are extensive opportunities for improved energy efficiency in supply and demand as many technologies are far from the theoretical limits.

Declaration of Commitment

As part of our environmental and LA21 strategies W.C.C. is committed to responsible energy management and will practise energy efficiency throughout all our premises, plant and equipment, wherever it is cost-effective to do so.

1.3. Statement of Policy

The policy of W.C.C. is to control energy consumption in their properties in order to:

Policy	Long Terms Objectives
<ul style="list-style-type: none"> Avoid unnecessary expenditure 	<ul style="list-style-type: none"> Buy fuels at the most economic cost Support the use of BREEAM for all new build and refurbishment projects to provide lowest commercial life cost options
<ul style="list-style-type: none"> Improve cost-effectiveness and working conditions 	<ul style="list-style-type: none"> Consume fuels as efficiently as is practicable
<ul style="list-style-type: none"> Protect the environment 	<ul style="list-style-type: none"> Encourage the use of sustainable energy technologies to reduce the amount of pollution, particularly CO₂ emissions caused by our energy consumption Establish appropriate environmental targets for future energy use Develop appropriate indicators through which to measure and publish progress towards achievement of environmental targets Encourage developments with minimal energy requirements Promote the use of locally sourced and recycled materials
<ul style="list-style-type: none"> Prolong the useful life of fossil fuels 	<ul style="list-style-type: none"> Reduce, wherever possible, our dependence on fossil fuels through the use of ambient and renewable energy
<ul style="list-style-type: none"> Increase public support for sustainable energy technologies 	<ul style="list-style-type: none"> Support the provision of information for businesses and the general public to raise awareness of energy efficiency, renewable energy and environmental issues

1.4. Immediate Aims

In the short term the Council aims to:

- Gain control over our energy consumption by reviewing and improving our purchasing, operating and staff training practices.
- Identify areas for improvement and invest in a rolling programme of property energy saving measures which will maximise returns on investment in order to generate funds which can be re-invested, at least in part, in further energy management activities.

- Establish and maintain a management information system to ensure that information is delivered to those who need it, on time and in a form which supports their managerial decision-making.
- Raise energy awareness through the Asset Management Plan Process with the use of an Energy Management Matrix and Action Plan.

Energy Management Matrix and Action Plan

Energy use in buildings produces half the UK's CO₂ emissions. Energy efficiency is a quick, cost-effective way to reduce these emissions. The matrix¹ will help to measure the current state of energy management in Warwickshire County Council and point towards where to go next. It enables a formal assessment of the following organisational aspects of energy management:

- **Energy Policy:** why there is a need for a formal commitment to energy management from W.C.C.
- **Organising:** how to integrate energy management into W.C.C.'s formal and informal management structure.
- **Motivation:** how to build effective relations with energy users and motivate them to save energy.
- **Information Systems:** what is an appropriate and effective information system.
- **Marketing:** where and how to promote and publicise energy management and achievements.
- **Investment:** how to identify projects and justify investment in increased energy efficiency and how to demonstrate value for money to top management.
- **Funding:** what are the options for funding energy management activities.

Aims and Objectives

Of W.C.C.	Of Energy Management Staff
To promote education, knowledge and personal development	To market the value of energy conservation both within W.C.C. and outside it.
To develop and maintain a vibrant, healthy local economy which promotes prosperity	To support community initiatives to reduce wasteful use of energy and water. To review employment / rural diversification opportunities associated with renewable energy technologies.
To protect and develop vulnerable people, families and communities	To help W.C.C. employees to encourage the uptake of domestic energy efficiency measures to control energy consumption and reduce bills.

¹ Energy Efficiency Best Practice Programme (March 1998), Energy Management Guide: Aspects of energy management Report 12. EEBPP, DETR: BRECSU.

	To reduce fuel poverty.
To protect life and property	To manage resource consumption economically, efficiently and effectively in Council properties. To encourage implementation of energy efficiency measures / renewable energy schemes in any refurbishment / new build.
To promote good health and a better environment and to improve the quality of life	To develop and implement an energy and environmental strategy action plan. To review properties with high energy or water consumption. To reduce W.C.C. contribution to global warming (CO ₂ emissions). To contribute / respond to national environmental and energy policy objectives. To contribute to the implementation of Local Agenda 21 strategies for energy and water conservation.

Aims and Objectives (cont.)

Of W.C.C.	Of Energy Management Staff
To serve and provide the best possible services for the people of Warwickshire at an affordable price	To form a cohesive energy management strategy. To integrate an energy policy into corporate asset management planning (AMPs). To review properties with high energy or water expenditure. To collaborate / work in partnership with other agencies and organisations to promote energy efficiency. To increase cross- departmental working on energy issues. To work with all W.C.C. property users to raise performance by encouraging the cost-effective and sustainable management of resources. To evaluate the Council's energy / water performance and monitor future actions to reduce consumption. To encourage continuous improvements in resource use, waste reductions and progress in energy and water efficiency to provide best value. Promote innovation in energy technologies. To make better use of information. To use the information to demonstrate achievement of W.C.C. aims. To set energy targets for building users. To identify and correct faults. To motivate staff to save energy. To identify and implement energy saving measures.

	<p>To demonstrate effective performance to Chief Officers, budget holders and building users.</p> <p>To provide information to Chief Officers showing benefits to W.C.C. of energy management.</p> <p>To comply with environmental legislation and environmental management systems.</p>
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Energy Management Matrix / Action Plan

Level	Energy Policy	Organising	Motivation	Information Systems	Marketing	Investment
4	Energy policy, action plan and regular reviews have commitment of COMT and Cabinet as part of an environmental strategy.	Energy management fully integrated into management structure. Clear delegation of responsibility for energy consumption.	Formal and informal channels of communication regularly exploited by energy manager and staff at all levels	Comprehensive system sets targets, monitors consumption, identifies faults, quantifies savings and provides budget tracking.	Marketing the value of energy efficiency and the performance of energy management both within the organisation and outside it.	Positive discrimination in favour of 'green' schemes with detailed investment appraisal of all new-build and refurbishment opportunities
3	Formal energy policy, but no active commitment from top management	Energy manager working with an energy committee representing all users.	Energy committee used as main channel together with direct contact with major users.	M&T reports for individual premises based on sub-metering, but savings not effectively reported to users.	Programme of staff awareness and regular publicity campaigns.	Same pay back criteria employed as for all other investment.

2	Unadopted energy policy set by energy manager or senior departmental manager	Energy manager in post, reporting to ad-hoc committee, but line management and authority are unclear.	Contact with major users through ad hoc committee chaired by senior departmental manager	Monitoring and targeting reports based on supply meter data. Energy unit has ad hoc involvement in budget setting.	Some ad hoc staff awareness training.	Investments using short term pay back criteria only.
1	An unwritten set of guidelines	Energy management the part-time responsibility of someone with only limited authority or influence.	Informal contacts between engineer and a few users.	Cost reporting based on invoice data. Engineer compiles reports for internal use within department.	Informal contacts used to promote energy efficiency.	Only low cost measures taken.
0	No explicit energy policy.	No energy management or any formal delegation of responsibility for energy consumption.	No contact with users.	No information system. No accounting for energy consumption.	No promotion of energy efficiency.	No investment in increasing energy efficiency in premises.

Instructions for Using the Energy Matrix

1. Consider each column, one at a time.
2. Mark the place in each column that best describes where you think W.C.C. was at **insert date**.
3. Place your mark in the appropriate cell or between cells if you think this is more accurate.
4. Join up your marks across the columns to produce a graph line. This is W.C.C Organisational Profile for that date. It will give an overall indication of how balanced energy management was in W.C.C.
5. The peaks represent where there was most effort. The troughs indicate where W.C.C. was least advanced.
6. Which columns contain issues that are most important in your own particular circumstances?
7. Choose two columns where you would most like to see a change or improvement.
8. List what you see as the five main obstacles impending progress to the next level in these columns.
9. Identify three key opportunities for improving performance.
10. Return the matrix to Jacky Lawrence, Energy Manager, PT&ES Department.

To be completed through Asset Management Plan Process (AMPs).