RENEWABLE ENERGY IN KENT

Select Committee Report – Executive Summary

2010

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Chairman's Foreword

Until the early 18th century virtually all the energy used by mankind came from renewable resources. Between them water, wind, wood and muscle provided the power for home and industry. The age of fossil fuels began as the population grew and the industrial revolution gathered force. Renewable energy could no longer keep pace with demand and the intermittent nature of many renewable energy sources became more and more of a problem. Three hundred years later these same issues are with us once again as the availability of fossil fuels declines and worries about what we now call energy security increase.

So far as electricity is concerned, a bigger and smarter grid can mitigate the problems to some extent; but it is not a cost free option and as the proportion of renewable generation increases we will inevitably see a time when overall generating capacity has to increase to meet the same level of demand. Even today 1 megawatt of wind energy cannot fully replace 1 megawatt of energy derived from fossil fuels, principally because it cannot be switched on and off as demand varies because it is dependent on how strongly the wind blows or the sun shines.

There is clear public support for renewable energy in Kent. If this is to be maintained it is vital that the case for it is not overstated. The Committee's view is that renewable energy resources are a useful addition to the energy mix available to help meet the problems of future energy security. They are not at present a panacea enabling us to meet all future energy requirements.

Most forms of renewable energy are not at present intrinsically cheaper than more conventional fuels; if anything the reverse is true, but this is likely to change as the supply of fossil fuels inevitably declines and renewable energy technology improves.

In 2009 Kent County Council spent just under £24 million on buying energy. It is clear to us that this figure could be reduced substantially over the next few years by adopting a judicious mixture of improvements in energy efficiency and the exploitation of the subsidies available for the use of renewable energy. The county would simultaneously benefit from clear environmental improvements. The same is true for industry and households in Kent.

The availability of good advice is vital to such a goal; but it is unusually hard to come by in this field. Too many of those offering advice see themselves as prophets of good practice or have a pecuniary interest in the technology they advocate. Therefore we believe that building KCC's in house knowledge-base and that of the county as a whole is vital to achieving success.

Just as certainly we now face the prospect of very real financial penalties if we fail to reduce our environmental impact.

In the Committee's view the County Council now has a rare opportunity to exploit a situation in which financial, environmental and service considerations all point in the same direction. We would be foolish not to take

it.

May I thank all those who gave evidence to the Committee. Without them there could have been no report.

Keith Ferrin
Chairman, Renewable Energy Select Committee

I EXECUTIVE SUMMARY

1.1 Committee membership

1.1.1 The Select Committee comprised eight Members of the County Council; seven Conservative and one Liberal Democrat.

Kent County Council Members (County Councillors):


Keith Ferrin (Cons)


Charles Hibberd


David Hirst (Cons)


Richard King (Cons)


Tim Prater (Lib Dem)


Chris Smith (Cons)


Paulina Stockell


Elizabeth Tweed

1.2 Terms of Reference

1.2.1 To determine existing and emerging national and local policies and strategies with regard to renewable energy and their effect on Kent.

1.2.2 To establish a baseline position and future projections for Kent with regard to energy requirements, generation and distribution including the contribution from renewable energy.

1.2.3 To identify key challenges as well as opportunities in relation to renewable energy in Kent.

1.2.4 To Identify and explore the views of suppliers and consumers in relation to renewable energy.

1.2.5 Having considered the above, to make recommendations which will contribute to increased energy efficiency, energy security and prosperity for Kent residents and businesses as well as supporting the national transition to a low-carbon future.

1.3 Definition of Renewable Energy

1.3.1 Renewable energy, which is replenished by natural processes as it is used, is defined by the EU as energy from: 'non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases).' [1]

1.4 Evidence gathering

1.4.1 The Select Committee trialled an alternative format for its evidence gathering and following initial desk research, approached a number of organisations for written evidence. Whilst awaiting responses, the Research Officer sought informal advice and information from KCC Officers. After studying the written material submitted, the Committee invited community groups and members of the public to give their views in writing, interviewed a number of individuals in person, carried out visits, attended conferences and circulated a questionnaire to Kent schools.

1.4.2 A list of the witnesses who submitted written evidence is shown as Appendix 2. A list of witnesses attending hearings is at Appendix 3. Details of visits carried out are at Appendix 4 and results of the schools questionnaire, which received 47 responses, are at Appendix 5.

1.5 Reasons for establishing the Select Committee

1.5.1 The Select Committee was established by the Environment, Highways and Waste Policy Overview Committee following suggestions put forward by Dr Linda Davies, Director of Environment and Waste and Mr David Brazier, Council Member.

1.5.2 The review has considered:-

- Data on energy generation, consumption and distribution;
- The role of energy efficiency and renewable energy in increasing security of energy supply and reducing harmful carbon emissions;
- Kent's capacity for different types of renewable technology and factors affecting its development;
- The opportunities arising from the development of a new industry.

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[1] EU Directive 2001/77/EC amended and subsequently repealed by Directives 2003/30/EC and 2009/28/EC

1.6 Key findings

1.6.1 For Kent to gain maximum benefit from the transition to a low-carbon economy, it must welcome new ideas and technologies and encourage investment. It can do this by creating a favourable planning and regulatory environment; ensuring the right infrastructure is in place; that businesses are sustainable as well as geared up and ready to play their part and that people with the right skills are 'grown' locally.

1.6.2 In April 2010, the government's introduction of a Feed-in Tariff to incentivise small-scale (up to 5MW) renewable electricity generation meant that technologies which were already desirable on environmental and energy security grounds became economically attractive. A change in legislation on the local authority sale of surplus electricity to the grid means that local authorities as well as communities and residents can make immediate savings on energy bills; earn income from long-term investment in clean energy supplies and contribute to national targets for carbon reduction and renewable energy generation.

1.6.3 Being energy efficient, and reducing the amount of energy we use is no longer a choice but a necessity. Energy efficiency alone, however, will not be enough to make the deep cuts in carbon emissions that are required and renewable, or other low-carbon energy schemes will be required in order that Kent County Council does not incur penalties.

1.6.4 There are clear advantages to Kent County Council 'leading by example' with its own activities and operations, and assisting others in Kent to contribute and to benefit. KCC Commercial Services is well placed to develop further its expertise and services in this field.

1.6.5 Very substantial cost savings are possible, using a combination of behaviour change, building adaptation and energy efficiency as shown by the example of St Peter's Church of England Primary School Aylesford..

1.6.6 Kent is rich in community groups and individuals who are passionate about the environment and keen to pursue ideas for low-carbon living and greater energy self-sufficiency. With a small amount of support to get projects 'off the ground', such groups can be enabled to grow and thrive thus creating local resilience to a changing climate; greater community cohesion; and a network for sharing energy saving ideas and best practice across the county.

1.6.7 As well as being ideally located to exploit renewable energy from the sun, wind and perhaps in future, the tides, Kent is lucky to have large areas of unmanaged, or undermanaged woodland that can be brought back into

coppice-management in order to achieve sustainable local supplies of wood fuel. There are multiple benefits to be gained from coppice-management such as increased biodiversity, rural employment, improved access to the countryside and a reduced need for imported wood fuel.

1.6.8 The decarbonisation of transport will require continued advances in vehicle technology, but perhaps more importantly, a cultural shift in the way people view their cars, and the journeys they make. KCC can, by its actions, help to pave the way for future changes.

1.6.9 The successor to KCC's 'Towards 2010' strategy document: 'Bold Steps for Kent' – will focus on growth in the Kent economy, tackling disadvantage and inspiring communities. The Select Committee believes that all three of these aims will be underpinned by the successful transition to a low-carbon economy in Kent and the recommendations of this committee will seek to support them.

1.7 Recommendations

1. That KCC works with Kent District and Borough Councils and others to agree a Low Carbon and Renewable Energy Strategy for Kent. to enable the uptake of the most appropriate low carbon technologies. (page 107)

2. That a Member Champion for Low-Carbon and Renewable Energy is appointed to promote the implementation of the Strategy and report back to Cabinet and the Cabinet Climate Change Working Group on progress. (page 107)

3. That KCC develops the existing expertise within KCC and Commercial Services (LASER) and builds capacity in order to ensure that the Council has access to sound, unbiased advice when taking energy efficiency and renewable energy schemes forward. (page 69)

4. That KCC sets up new delivery mechanisms as appropriate in order to take advantage of emerging opportunities, allied to but separate from LASER, e.g. Energy Services Company (ESCO). (page 69)

5. That KCC capitalises on opportunities in its own estate, and works with local authorities, energy network companies, landowners and prospective investors to ensure that a proactive approach is taken to the identification of sites for renewable energy schemes in the county, in order to encourage and enable investment. (page 107)

6. That KCC reconfigures the Energy and Water Investment Fund, with a longer payback period, to enable continued provision of capital funding for energy efficiency measures in the estate and to allow for the longer-

term investment required for the installation of renewable energy systems.(page 66)

7. That KCC facilitates access to emerging financial mechanisms, such as the new Green Deal and the Green Investment Bank, whereby schools, businesses and householders in Kent can take advantage of loan funding to pay for the installation of renewable energy and energy efficiency systems on suitable properties, with repayments and term set to achieve a net saving in energy costs for the property and a reasonable rate of return over the period of the loan to investors (on a 'Pay as you Save' basis). (page 71)

8. That KCC substantially drives down energy consumption in its estate. Each Directorate should be required to take action to improve energy efficiency and encourage behavioural and other changes; Building User Groups should have 'energy usage and energy efficiency' as an agenda item at every meeting. (page 28)

9. That KCC implements an immediate review of its properties to assess their suitability and develop strategies for the installation of renewable technologies, particularly photovoltaic (PV) panels, and encourages District and Borough Councils, housing providers, emergency services, health institutions and other targeted businesses to do the same in their estates, taking advantage of current incentives, in order to reduce energy costs; generate income and catalyse the acceptance of renewable technologies in the wider community. (page 63)

10. That KCC uses energy display devices in prominent locations on its estate to encourage energy efficient behaviour (including where renewable energy installations are put in place, to increase awareness of the technology, the energy generation and the carbon-savings). (page 76)

11. That KCC lobbies the Department for Education to require schools to work with KCC to fulfil its CRC commitments and creates a direct incentive for schools to drive down their energy use and carbon emissions, using a range of behavioural, energy efficiency and renewable energy options. (page 34)

12. That KCC works with public agencies and approved suppliers, to provide a package of advice and support to schools, to enable them to benefit from energy efficiency work and renewable energy installations, at no net cost to the school or to KCC. (page 69)

13. That, provided currently agreed procurement criteria are met, KCC considers giving preference, for the procurement of goods and services, to

businesses who obtain accreditation through the South East Carbon Hub. (page 110)

14. That KCC lobbies government, on planning issues, to:

    - promote developments with a mixed heat demand suitable for district heating systems, which should be incorporated wherever possible.
    - relax planning control for domestic renewable energy installations on listed buildings and properties affecting conservations areas where this does not detract from heritage objectives. (page 86)

15. That KCC consults with District, Borough and other councils in Kent to determine what is needed to assist local authority planners and developers in making planning decisions relating to renewable energy applications, e.g. training, or an interactive planning tool. (page 86)

16. That KCC supports low-carbon community groups in the county by facilitating access to existing support and providing small grants of up to £5000 for advice or to assist with feasibility studies. (page 71)

17. That KCC, working with District and Borough Councils ensures that Kent communities, including schools, businesses and households have access to clear and current information on energy efficiency and renewable energy opportunities, taking into account the Feed-in Tariff and any subsequent incentives. (page 77)

18. That KCC should work with organisations such as the Forestry Commission and Natural England, to invest in the sustainable production of wood fuel, through the regeneration of coppicing in Kent, by:

    - Providing marketing expertise.
    - Encouraging apprenticeships for young people wishing to enter the industry.
    - Investigating the provision of a number of collection/chipping/distribution facilities, possibly based at recycling centres
    - Ensuring that, where possible, newly designed KCC buildings include biomass boilers. (page 56)

19. That, in view of the need for the UK to have a long term, sustainable mix of power supplies and due to the intermittent nature of some renewable energy sources, KCC presses for the provision of new generation low

carbon power stations so that there is adequate back up capacity to cope with demand peaks, providing security of supply. (page 91)

20. That KCC works with others, including District and Borough Councils, Network Rail and supermarkets, to assess the viability of establishing a network of public electric vehicle charging points in Kent. (page 99)

21. That KCC regularly surveys its own vehicles, and business journeys to: identify (and review) work patterns in order to minimise business mileage and to prepare for the availability and purchase of electric vehicles, where appropriate. (page 100)

22. That KCC adopts a policy of limiting its vehicles, except those attending emergencies, to a maximum speed of 56mph (90kph) in order to achieve greater fuel efficiency, in line with best commercial practice. (page 100)

ACKNOWLEDGEMENTS

The Select Committee would like to thank the KCC Officers, individuals and organisations who gave up their time to assist with this review. This includes those who have attended hearings, submitted written evidence, provided informal advice, hosted visits or completed questionnaire surveys. Thanks are also due to individuals whose offers to host visits could not be taken up due to time constraints.

All the information received, whether or not it has been included in the final report, has contributed to the Select Committee's knowledge and appreciation of the issues.

Particular thanks are due to Neil Hilkene and Carolyn McKenzie who acted as Lead Officers for the Review and to Mr David Brazier who provided a report on his Study Tour to Austria.