AGENDA

SELECT COMMITTEE - ENERGY SECURITY

Friday, 13th November, 2015, at 11.00 am Ask for: **Denise Fitch**

Swale 3, Sessions House, County Hall, Maidstone Telephone **03000 416090**

Tea/Coffee will be available 15 minutes before the start of the meeting in the meeting room

Membership

Mr D L Brazier, Mr B E Clark, Mr A D Crowther, Mr C P D Hoare, Mr P J Homewood, Mrs E D Rowbotham, Mr C P Smith, Mrs C J Waters, Mr J N Wedgbury, Mr M A C Balfour and Mr M E Whybrow

UNRESTRICTED ITEMS

(During these items the meeting is likely to be open to the public)

Minutes of the meeting held on 22 October 2015 (Pages 3 - 6)

11.00am - 12.45 pm Interview with Carolyn McKenzie (Head of Sustainable Business), Neil Hilkene (Economic & Spatial Development Officer) and Steve Baggs (Energy Manager) (KCC) (Pages 7 - 32)

EXEMPT ITEMS

(At the time of preparing the agenda there were no exempt items. During any such items which may arise the meeting is likely NOT to be open to the public)

Peter Sass
Head of Democratic Services
(01622) 694002

Thursday, 5 November 2015

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KENT COUNTY COUNCIL

SELECT COMMITTEE - ENERGY SECURITY

MINUTES of a meeting of the Select Committee - Energy Security held in the Wantsum Room, Sessions House, County Hall, Maidstone on Thursday, 22 October 2015.

PRESENT: Mr D L Brazier, Mr B E Clark, Mr A D Crowther, Mr C P D Hoare, Mr P J Homewood, Mrs E D Rowbotham, Mr C P Smith, Mrs C J Waters, Mr J N Wedgbury and Mr M E Whybrow

IN ATTENDANCE: Mr J Cook (Scrutiny Research Officer), Ms D Fitch (Democratic Services Manager (Council)), Mr D Price (Kent Graduate Programme – Management Trainee) and Mr G Romagnuolo (Policy Overview Research Officer)

UNRESTRICTED ITEMS

1. Election of Chairman

(Item 1)

Mr Smith proposed and Mrs Rowbotham seconded that Mr Wedgbury be elected Chairman of the Select Committee.

RESOLVED that Mr Wedgbury be elected Chairman of the Committee.

2. Draft Terms of Reference and Scope

(Item 2)

(1) The Chairman introduced the report on the draft terms of reference, scope and general approach for the Review. Also set out in the report was the proposed timetable based on the Select Committee report being submitted to County Council in May 2016 and suggested visits and witnesses for evidence gathering sessions. The Chairman emphasised the importance of keeping the scope of the review tight and focused.

(2) The Committee discussed the report and made a number of points and suggestions which included the following:

- The importance of avoiding duplicating the work of the previous Select Committee's on Renewable Energy and Climate Change was emphasised, there was a need for the new Select Committee to have its own focus.
- Where possible to take account of new developments in green technologies, including those which may not have previously been considered viable options.
- The view was expressed that the Committee should not avoid looking at controversial areas such as fracking and nuclear energy.
- The importance of energy sources being sustainable was emphasised.
- Reference was made to the combined heat and power distribution systems used in some German and Austrian towns.
- A site visit to Allington Integrated Waste Management was suggested.

- Information should be obtained for the Committee on Pines Calyx Conference Facility, Dover.

(3) Mr Price referred to an offer by the London Borough of Islington to host a visit for up to 3 Members on 4 November.

(4) RESOLVED that:

a) the terms of reference and general approach to the Review as set out in the report be approved (copy of the terms of reference will be attached as an appendix to the minutes).

b) Mr Whybrow be appointed as a non-voting co-optee.

c) the visit to Dungeness B nuclear power plant be held on Monday 14 December at 10.00am and if possible a visit to Little Cheyne Farm be arranged for the afternoon.

APPENDIX

Select Committee – Energy Security

Terms of Reference

1. To clarify the meaning of “Energy Security” and the responsibilities of KCC in ensuring this security.
2. To examine and assess a range of energy generation methods so as to best secure the future energy needs of Kent.
3. To identify existing best practice across the UK and abroad on how best to strengthen a sustainable, reliable energy infrastructure for Kent.
4. For the Energy Security Select Committee to make recommendations after having gathered evidence and information throughout the review.

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Energy Security Select Committee

Carolyn McKenzie

Head of Sustainable Business and Community – KCC

Biography

Carolyn is Head of Sustainable Business and Community at Kent County Council, covering Kent County Council's environmental performance as a business, as well as the implementation of the Kent Environment Strategy. Carolyn has over 15 years of experience of working in the Low carbon and environmental field across the public, private and not for profit sector.

Neil Hilkene

Economic & Spatial Development Officer – KCC

Biography

Neil is a qualified town planner and member of the Royal Town Planning Institute with 34 years experience covering development control, strategic and local planning, regeneration, conservation, environment and sustainability. He has been employed by the County Council for the past 17 years. Prior to this he held posts at Woking Borough Council, London Borough of Croydon, London Docklands Development Corporation, Gillingham Borough Council and Medway Council.

Over the past 10 years he has specialised in renewable and low carbon energy, working on projects and studies to realise the economic and community benefits from more sustainable energy solutions. He is currently leading a feasibility study to consider the viability of establishing a district heat network in Maidstone.

Steve Baggs

Energy Manager – KCC

Biography

Steve has 20 Years of experience of working in the energy industry, with a BA(Hons) in Economics and an MSc in Environmental Policy and Technology from Imperial College, London. He has worked for a number of local authorities on energy initiatives to reduce energy consumption and costs, as well as renewable energy initiatives. At KCC he has spent ten years working with schools and KCC estate to reduce energy costs and set up renewable energy projects, such as solar PV on

Invicta House and Ashford Highways Depot. He has a background in energy financing and funding and is currently managing the SALIX fund which allows energy efficiency measures to be installed at 0% finance through a joint KCC/Central Government Fund which is recycled.

Steve works with community organisations across Kent to reduce energy costs and look at innovative ways of financing community schemes, such as Sheppey Community Energy Trust, where he negotiated a community fund with a large solar farm developer.

At present, he is working on a District Heating network for Maidstone which is currently at the feasibility study stage.

Energy Security Select Committee

Hearing 1

Friday 13 November 2015

Witness Guide for Members

Below are suggested themes and questions. They have been provided in advance to the witnesses to allow them to prepare for the types of issues that Members may be interested to explore. All Members are welcome to ask these questions or pose additional ones to the witnesses via the Committee Chairman.

Themes and Questions

Carolyn McKenzie – Head of Sustainable Business & Community (KCC)

Neil Hilkene – Economic & Spatial Development Officer (KCC)

Steve Baggs – Energy Manager (KCC)

- Please introduce yourselves and provide an outline of the roles and responsibilities of your post.
- What do you understand the definition of energy security to entail?
- In your view, to what extent is energy security an important issue and why?
- Please provide an outline of the energy security situation in Kent and the UK at present.
- Please provide an outline of KCC's current roles and responsibilities in ensuring energy security for Kent.
- What do you consider the most viable energy measures and methods of generation for Kent to be, so as to best ensure energy security?
- How can local communities in Kent benefit from energy security measures?
- Are there any potential economic benefits to Kent in pursuing greater energy security?
- What are other local authorities in the UK doing to address energy security concerns? What could Kent learn from them?

- What else should KCC do, in your view, to promote increased energy security?

- What are other countries doing to address energy security concerns? What could Kent learn from them?

- Please explain the key outcomes, relating to energy security, of both the Renewable Energy and Climate Change Select Committees: what was done and what still needs to be done?

- Are there any other issues that you would like to raise with the Committee?

Kent County Council

Energy Security Select Committee

What is 'Energy Security'?

There is no one, universally agreed upon definition of energy security. However, there are a number of overlapping definitions that can serve as a focal point for investigations. The International Energy Agency (IEA) defines energy security as:

> *The uninterrupted availability of energy sources at an affordable price.*[1]

Whilst the House of Commons' Energy and Climate change Committee provides a more detailed definition:

> *A secure energy system is one that is able to meet the needs of people and organisations for energy services such as heating, lighting, powering appliances and transportation, in a reliable and affordable way both now and in the future.*[2]

In addition, the Department for Energy and Climate Change (DECC) defines energy security as:

> *…ensuring that we have access to the energy services we need (physical security) at prices that avoid excessive volatility (price security).*[3]

[1] International Energy Agency [online], available at: http://www.iea.org/topics/energysecurity/subtopics/whatisenergysecurity/
[2] HoC Energy and Climate Change Committee (2011), UK Energy Supply: Security or Independence? London.
[3] DECC (2012), Energy Security Strategy, London.

Energy security sits at the centre of a number of overlapping concerns (see Figure 1):

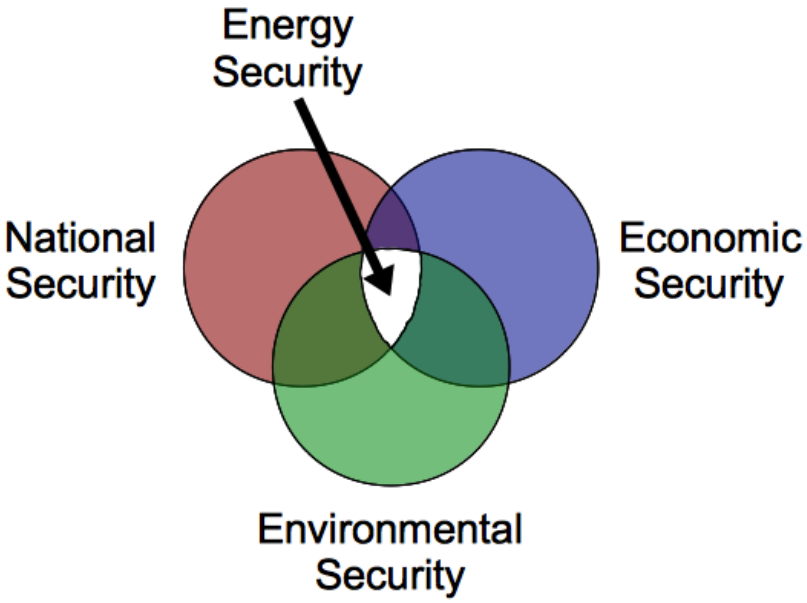

Figure 1 - Energy Security and Overlapping Concerns[4]

The institute for Public Policy Research (IPPR) has noted that most definitions of energy security entail three main components for guaranteeing said security:

- Ensuring security of supply of fossil fuels
- Finding alternative sources of energy
- Reducing demand for energy[5]

[4] SIMEC, Energy Security Initiative [online] available at: http://www.simecuskmouthpower.com/energy-security-initiative/
[5] IPPR (2007), Energy Security in the UK, London.

A Profile of Energy in Kent

In 2012, the total energy consumption (domestic, commercial and transport) for Kent and Medway was 35,149,700MWh[1]

Kent hosts a range of renewable generation, from large scale onshore and offshore wind farms to solar farms and biomass plants, as well as smaller scale building integrated technologies. Total installed renewable energy generation exceeds 1GW and continues to grow[2].

The renewable energy sector in Kent is estimated to employ 19,600 people[3].

Domestic Energy Use

In 2013, domestic energy consumption (gas and electricity) in Kent was down by 15% on 2008 levels; this is in line with a national reduction of 15.5% over the same period.[4]

Over a five year period domestic users in Thanet district have reduced energy use by over 22%, whilst nationally the reduction is almost 20%. This supports both cost and energy efficiencies.[5]

Energy consumption varies across the county, with Sevenoaks having the highest energy consumption (21,847kWh per consumer unit) and Thanet the lowest (16,034kWh per consumer unit).[6]

Non Domestic Energy Use (i.e. manufacturing, public sector)

In 2013, non domestic energy consumption (gas and electricity) in Kent was down by 15% on 2008 levels; this is compared to a national increase of 3.2% over the same period.[7]

[1] KCC (2015) Kent State of the Environment Report. Available at: http://consultations.kent.gov.uk/consult.ti/KESconsultation/consultationHome
[2] Ibid.
[3] Ibid.
[4] Ibid.
[5] Ibid.
[6] KCC (2015) Business Intelligence Statistical Bulletin – Domestic Energy Consumption 2013
[7] KCC (2015) Business Intelligence Statistical Bulletin – Non Domestic Energy Consumption 2013

Energy consumption varies across the county with Gravesham having the highest energy consumption (1,605,186kWh per consumer unit of which 94% was gas) and Sevenoaks the lowest (271,803kWh per consumer unit of which 83% was gas).[8]

Attitudes to Energy

45% of people in Kent give a lot of thought to saving energy in their home (this figure is higher for residents of Dover, Medway Thanet and Shepway), with 49% thinking about it a fair amount.[9]

83% of Kent residents have fitted some form of energy saving measure in their homes (insulation, light bulbs, etc.).[10]

95% of Kent residents use energy efficient light bulbs, 80% have loft insulation, and 65% have an energy efficient boiler.[11]

80% of Kent residents use green modes of transport such as walking, cycling or public transport at least once a week.[12]

26% of Kent residents use green energy companies as their energy suppliers.[13]

9% of Kent residents have fitted energy generation equipment such as solar panels to their homes. Dartford, Canterbury and Maidstone have the highest uptake of such equipment amongst residents.[14]

[8] Ibid.
[9] From a representative sample of 601 Kent residents - survey conducted for KCC by Facts International.
[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.

A Profile of Energy in the UK

The UK currently meets its energy needs through a mixed supply of coal, oil, gas, renewables (i.e. solar and wind) and nuclear power.

Transport is the largest consumer of energy in the UK at 38% of all energy consumption in 2013. Domestic use is the second largest at 31%, with manufacturing last at 17%.[12]

Since 2004, the UK has shifted from being a net exporter of energy to a net importer. In 2014, the UK imported 46% of the energy required to meet national demand.[3]

Electricity Generation

In 2014, electricity in the UK was generated from the following sources:

- 30.2% from gas
- 29.1% from coal
- 19.2% from renewables
- 19.0% from nuclear
- 2.5% from oil and other[4]

Renewables now generate around as much electricity for the UK as nuclear power plants.[5]

Domestic Energy Bills

In 2014, the average annual domestic fuel bills were £752 for gas, and £592 for electricity (£1,344 in total). This represents a 3.2% and 2.6% increase on 2013 bills respectively.[6]

Energy bills have continued to increase in both cash (see graph below) and real terms year on year; meaning that energy bills are taking up more of people's expenditure with each year.[7]

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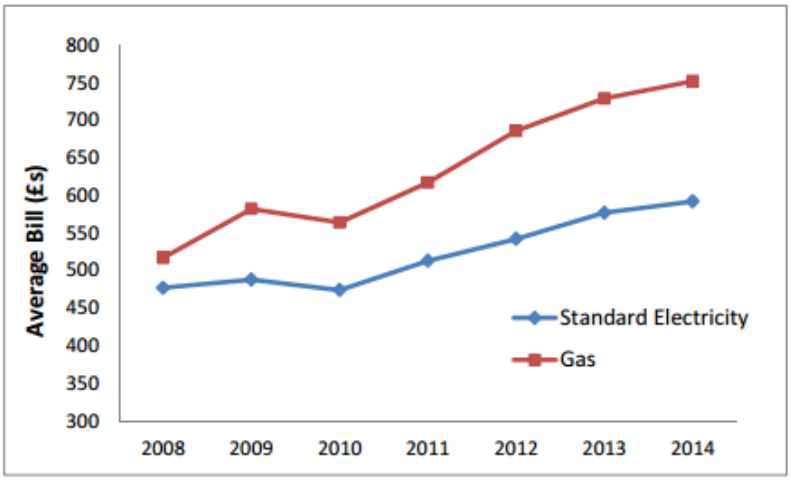
[1] The remaining 14% accounts for energy that is converted into other forms of energy, as opposed to being used for domestic, industrial or transport purposes.
[2] ONS (2015) Energy and Emissions in the UK.
[3] DECC (2015) UK Energy Statistics, 2014 & Q4 2014.
[4] Ibid.
[5] Ibid.
[6] Ibid.
[7] Ibid.

In 2013, 2.35 million UK households were estimated to be living in fuel poverty[8]. This figure has remained relatively stable since 2003.[9]

DOMESTIC ENERGY BILLS: 2014

Average domestic gas and electricity bills (cash terms), 2008 to 2014



Targets & Acts

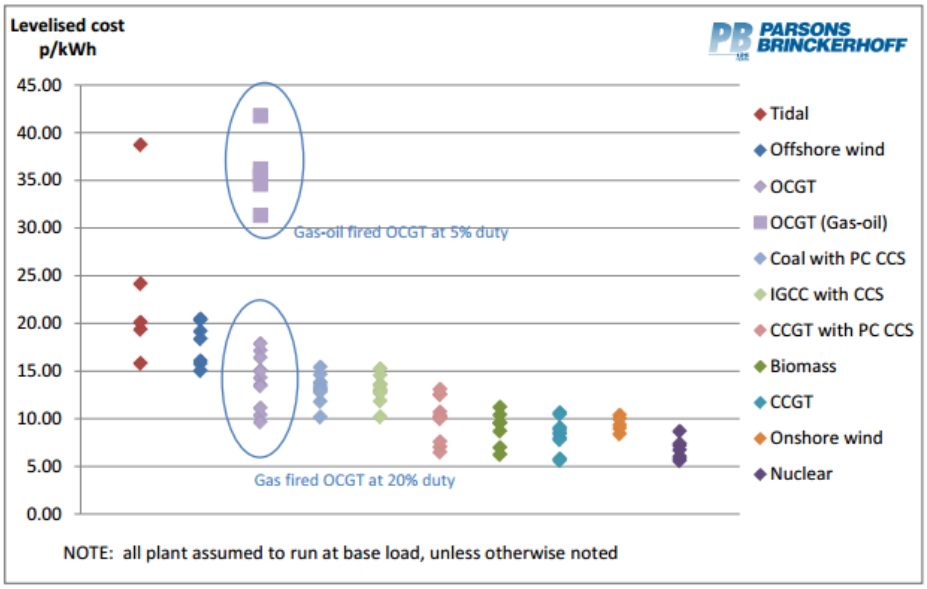
The UK has a legally binding EU target to ensure that 15% of all energy (transport, heating and cooling, and electricity) consumed nationally is generated from renewable sources by 2020.[10]

The Climate Change Act 2008 requires a reduction in UK carbon emissions by 2050 of 80% on their 1990 baseline.[11]

[8] Defined as a situation whereby a family spending the required amount to adequately heat their home would then be left with a residual income below the poverty line.
[9] DECC (2015) Annual Fuel Poverty Statistics Report, 2015.
[10] KCC (2015) Kent State of the Environment Report. Available at: http://consultations.kent.gov.uk/consult.ti/KESconsultation/consultationHome
[11] HMGovernment (2011) Implementing the Climate Change Act 2008

Economic Information

Levelised costs for producing electricity via various power generation technologies are shown below.[12]



[12] [Online] Available at: https://www.gov.uk/government/collections/energy-generation-cost-projections

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2 Climate Change Select Committee - Executive Summary

2.1 Why the Select Committee Has Taken Place and its Purpose

2.1.1 Climate change[1] is an issue of growing public concern and awareness. It is also an increasing priority for government at international[2], national[3] and local[4] level. The Policy Overview Co-ordinating Committee established a Select Committee on Climate Change in August 2005. The strength and volume of the evidence presented leads the Select Committee to readily accept the scientific consensus that climate change over and above that which can be explained by natural variation is happening, and that human activity is responsible. As such, acceptance of these propositions is the most - indeed, the only - sensible basis for future policy development on climate change.

2.1.2 Three of the biggest obstacles for securing a commitment to action on climate change are that:

- Some of its most dramatic predicted effects seem a long way off, and it is difficult to predict when they might occur.
- There is some awareness of the impact of global warming on distant parts of the planet – the polar ice caps, expanding deserts, low lying Pacific island states, for example – but very little understanding and awareness of the profound changes facing Kent.
- It is difficult to attribute any particular extreme weather event – whether that be the current drought or the flooding in New Orleans in 2005 for example – to climate change.

2.1.3 Having considered these questions in some detail, however, the Select Committee believes that:

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[1] For the definition of climate change used in this report, please see section 4.1.2**Error! Reference source not found.**. For a further detailed definition, please see the glossary.

[2] For example, the formation of the Inter-governmental Panel on Climate Change in 1988, assembled by the world's governments to provide scientific advice on climate change. See www.ipcc.ch/about/about.htm.

[3] For example, the formation of the UK Climates Impacts Programme in 1997, see evidence in this report and www.ukcip.org.uk.

[4] For example, the Nottingham Declaration on Climate Change to which Kent County Council is a signatory. This is a declaration for Local Authorities to commit to tackling the impact of climate change. See www.lga.gov.uk/Briefing.asp?lsection=59&id=SXB9C9-A77F8CF8&ccat=216.

- The evidence that climate change, over and above that which can be explained by natural variability, is already happening is overwhelming. As such, it needs to be addressed as a problem for today, not just for tomorrow, particularly as the warming we will experience until the 2040s has already been determined by past emissions.

- The impacts of climate change for the UK will be acute. Kent will experience some of those impacts, notably rising temperatures and reduced summer rainfall, more sharply than any other part of the country.

- Uncertainty is not an excuse for inaction. Governments, central or local, are likely to face grave political consequences if they do not act and the impacts become more apparent, which they may do rapidly and unexpectedly.

2.2 Recommendations

2.2.1 The Select Committee's recommendations are summarised below and are not ranked in order of importance. The detail supporting recommendations are in the report as indicated and readers are referred to these sections for further details.

No.	Summary Description of Recommendation	Section for Detail	Detailed Recommendation Section Reference
1	An explicit corporate acceptance of climate change and how human activity contributes to it.	Is Climate Change Happening?	4.2.3
2	Detailed assessment of climate change impacts on KCC services and development of adaptive responses.	Adaptation	6.3.8
3	Ensure climate change impacts on flood risk, water resources and emergency planning are taken into account.	Adaptation	6.11.5
4	Provide support for better sustainable energy advice to Kent's residents.	Mitigation	7.5.7
5	Complete a feasibility study for use of biomass in KCC buildings and replace conventional fuels with bio-fuels in KCC vehicles where possible.	Mitigation	7.7.7
6	Increase support for energy efficiency and renewable energy, particularly micro-generation, in the KCC estate and across Kent as a whole.	Mitigation	7.9.13

No.	Summary Description of Recommendation	Section for Detail	Full Recommendation Section Reference
7	Review transport policy to achieve an overall reduction in emissions from transport in the KCC estate and across Kent as a whole.	Mitigation	7.12.8
8	Make more efficient use of land in the development process and meet higher standards of sustainable construction.	Mitigation (and Adaptation)	7.17.3
9	Introduce a Climate Change Action Plan, supported by clear targets.	Community Leadership	8.4.10
10	High profile communications programme.	Community Leadership	8.5.5
11	Clarify political and management leadership and accountability on climate change within KCC.	Community Leadership	8.6.4
12	Improve education on climate change impacts.	Community Leadership	8.7.6

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RENEWABLE ENERGY IN KENT

Select Committee Report – Executive Summary

2010

Kent County Council
County Hall
Maidstone
ME14 1XQ
08458 247247
county.hall@kent.gov.uk

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
(Cons)


David Hirst
(Cons)


Richard King
(Cons)


Tim Prater
(Lib Dem)


Chris Smith
(Cons)


Paulina Stockell
(Cons)


Elizabeth Tweed
(Cons)

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.

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.

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

1.6.2 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

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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.

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