Brighton & Hove City Council

Report of the Environment and Community Safety Overview and Scrutiny Panel

April 2011

Scrutiny Panel on Renewable Energy Potential

Panel Members

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1. Chair's foreword

Brighton & Hove has one of the oldest supplies of electricity in the world. New electrical devices were being pioneered in this city over 100 years ago. The council played a leading role in developing electricity in the city through a municipal company created in 1883. Through this innovative activity, the council transformed the city for the better. Electricity opened up new commercial and economic possibilities and improved the quality of life for residents and visitors. As in other cities, municipal electricity sales generated revenues for other public works and services.

Brighton & Hove was in the vanguard of the electrical energy revolution of the twentieth century. It could conceivably lead in the transformation to sustainable energy for the twenty-first century. As in that earlier era, the city has entrepreneurs, advocates, innovators, planners, landowners, investors, community groups and end-users all interested in new and this time renewable, energy systems. A portfolio of viable technologies exists appropriate for different situations in the city. National policy, markets and investment funds are being put into place. Local interest and capabilities are growing as a handful of exemplary projects already prove. However, if the city is serious about being a sustainable and innovative place, then a step change is needed, so that the exemplars become the norm.

Much of the potential is currently frustrated because there is insufficient co-ordinating leadership. People with the skills, finance, spaces, technologies, and plans need to be brought together more effectively. Some activity is under way; but it is tentative. It is also distributed across departments and organisations for which renewable energy is not a core business. This suggests to me that a dedicated team is required, backed up with high level support, and working in partnership with others. As innovative local authorities are demonstrating elsewhere, revenues from early projects can, when designed carefully, recoup early investments, employ dedicated staff, finance expansion, and help fund other public services. With the right vision and organisation, backed with well-resourced processes, then Brighton & Hove can reap the benefits of sustainable energy systems.

The council cannot do this alone. It needs to work alongside other groups. This includes local communities seeking to develop sustainable energy measures in the city. Much more effective partnerships with new and established energy companies, households, landlords and commercial property owners must be created as well. And where leadership is lacking, then it is up to citizens to place pressure upon the council to develop the leadership. Indeed, leadership on renewable energy can only be maintained if local people are involved, and can see how it benefits their lives and their city.

Some early wins with relatively straightforward renewable energy measures can help build awareness, confidence and interest in more demanding measures later. Systematic learning processes need to be put into place, so that experience accumulates and is shared widely. The reduction of energy

demand through efficiency measures has to be a central part of any sustainable energy strategy. Energy demand was beyond the scrutiny remit, but we recognise our recommendations must be integrated with demand reduction measures.

As with the electricity system pioneered by our forebears in the 1890s, building sustainable energy systems in our city will involve taking risks and learning from mistakes, as well as building on successes. There are questions of how these risks and benefits are distributed. We need to make sure the needs of the vulnerable are assured. Energy insecurities, price rises, and climate change impacts associated with existing energy systems are already hitting the poorest hardest – as testified by fuel poverty in the city. Implemented carefully, new sustainable energy systems could not only alleviate these problems, but also provide other benefits, such as apprenticeships, jobs, turn food waste into energy, and (because renewable energy builds upon local resources) help keep wealth circulating in the local economy.

The national situation with renewable energy is developing fast. A nimble and adaptable approach is required, one that can keep pace with developments and anticipate opportunities. Other cities are leading the way. Our recommendations in this report suggest ways that Brighton & Hove can join that vanguard.

The recommendations here were informed by evidence heard from 26 expert witnesses and considerable written evidence, as well as background materials on renewable energy in the UK. Panellists Councillors Warren Morgan, David Watkins and Pete West played an excellent, perceptive role in formulating the recommendations here, on the basis of evidence from very helpful and stimulating witnesses. The process received incredible support from the Scrutiny Team, especially Karen Amsden, Tom Hook, and Jonny Barton. I thank everyone for making the Chairing of this scrutiny panel so rewarding, and I hope their efforts contribute to a truly sustainable city for all.

Adrian Smith
SPRU (Science & Technology Policy Research), University of Sussex
March 2011

2. Executive summary and list of recommendations

Renewable and sustainable energy

2.1 The Panel was set up to identify what could be done to encourage the growth of renewable energy in the city. This term refers to energy sources which do not deplete the earth's natural resources.

However, as the Panel progressed it became clear that it would be sensible to widen the focus to include also consider what are known as 'transitional technologies' such as District Heating and Combined Heat and Power. Sustainable energy covers both renewable energy and transitional technologies.

Opportunities offered by sustainable energy

2.2 According to the Government's recently produced draft national Carbon Plan:

'…we cannot continue as we are. The UK needs clean, safe and affordable energy to heat our homes and power our businesses'[1]

So sustainable energy is here to stay, and expanding the sector will offer many benefits to the city. To encourage this sector to grow, an ever increasing range of incentives are being offered to businesses, local authorities, individuals and organisations. These include the Feed in Tariff and the Renewable Heat Incentive.

The Panel heard a number of reasons why Brighton & Hove needs to value this sector, as more than just a means of reducing $C0_2$. It can also be a way to address social policy goals and realise a wide range of economic opportunities for the city. These include:

- Tackling fuel poverty
- Income generation from incentives and selling energy
- Lowering energy prices
- Creating local jobs
- Linking to waste management, e.g. with district heating schemes
- Improving the city's infrastructure, e.g. improving housing conditions
- Education and improving skills
- Adding to our civic reputation and creating a hub for this sector

Seizing the opportunities for the city

2.3 Many of the witnesses who gave evidence to the Panel demonstrated how keen developers, community organisations and other local authorities are to respond to the opportunities presented by the sustainable energy sector. While Brighton & Hove has many of the capabilities to seize such

[1] Carbon Plan http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/carbon_plan/carbon_plan.aspx

opportunities, so do several other cities. It will need to compete with these other locations for the investment and funding opportunities presented by developers and national policy. This echoes the findings of the Environmental Industries Scrutiny Inquiry which was carried out in 2009. This Inquiry was carried out for the CTEOSC to assess how the environmental industries sector could benefit Brighton & Hove.

Consequences of not taking up these opportunities

2.4 If these opportunities are not taken up, they could become risks and costs to the city. For example growing renewable energy can lead to lower energy prices, but if this is not done, then the city could leave itself vulnerable to future energy price rises and increasing fuel poverty. This is arguably more serious than the diminished credibility of claims to be a sustainable city, which would also result from inaction.

Leadership

2.5 The Panel heard a good deal of evidence which emphasised the importance of leadership in growing this sector. This needs to consist of:

- Citywide leadership
- Council leadership
- Political leadership

Such leadership, backed with resources, would instil confidence and raise the profile of the sector.

Setting out our stall

2.6 This leadership needs to set the direction for, then champion, a consistent citywide programme to enable sustainable energy to realise its potential. This would include:

- A citywide sustainable energy programme
- A sustainable energy policy for the council
- A dedicated agency or team in the city responsible for sustainable energy

Making renewable energy a core business

2.7 The Panel members were struck by how renewable energy was not a core concern for many organisations. One example was Shoreham Port, even though the Port Authority was sympathetic and want to benefit from the opportunities. It was also only the core business of a very limited number of people in the council. This is why a recommendation is to create a Sustainable Energy Agency for the city, which would focus on this crucial issue and work to put it into the mainstream.

Adapting to change

2.8 Sustainable energy is a complex sector with rapidly changing policies. The situation is both full of opportunities, but also fraught with dangers. This requires a wide range of skills and capabilities which are typically spread across a range of departments within the same organisation. These skills include:

- Technical
- Legal
- Financial
- Planning
- Marketing
- Partnership working
- Community development

A team leading the way on sustainable energy need not possess all these skills itself, but it needs to be able readily to access and coordinate specialist help from other parts of the organisation. So Brighton & Hove City Council needs to ensure that it has skilled people with the capacity to be responsive to these opportunities, negotiate partnerships and gain the benefits from energy projects.

Learning

2.9 One of the tasks of a specialist team would be to keep abreast of such a fast moving area. This would include:

- Learning from good practice in Europe
- Learning from good practice authorities
- Monitoring projects in the city, to learn what worked well and what could be improved
- Generating income by investing in energy saving and renewable energy measures, or partnering with others and sharing benefits. The Agency should not inhibit others from developing sustainable energy in the city

Building capacity

2.10 The Panel heard evidence which showed how much work other local authorities had already done to encourage this sector and highlighted how important it was for the council to:

- Build capacity
- Grow confidence
- Gain experience

The projects that the council is currently developing, such as installing solar panels on its own homes, need to be seen as a way for the organisation to develop and prepare for even larger shifts to sustainable energy in the city: they should be viewed as various aspects of a centrally driven project rather than as discrete initiatives 'owned' by particular council teams or departments.

Increasing demand

2.11 While there are a number of ways in which organisations can better employ sustainable energy, there is also considerable potential for individuals to switch to renewables. In order to encourage a greater take up of renewable energy in the city from individuals, the Energy Agency could be tasked with:

- Providing clear information about incentives and income generation

- Mapping information to enable both the community to assess if their homes would be suitable and potential developers to plan projects
- Giving clear information about the process and who to contact
- Gaining feedback from people who have installed renewables about which projects worked well and what could have gone better

Making projects happen

2.12 It is clear that a lot of plans and policies have been developed, or are being drawn up, to enable the growth of this sector in the city. The council needs to enable the next stage of making sure that projects actually happen and that benefits are captured locally.

Income generation

2.13 At a time of reductions to local authority budgets, renewable energy can provide a separate and resilient source of income. However it needs some investment up front. The evidence gathered from other local authorities, such as Kirklees Council, shows how councils can lever in considerable sums from partners, with only a relatively small outlay.

Helping community energy

2.14 Evidence to the Panel showed that community energy organisations are keen to grow opportunities in the city. The Panel feel that it would be beneficial for the council to work with them sympathetically and to pro-actively support them. Typically, these community organisations are quite new and inexperienced and may find it difficult to get involved in the larger projects being developed in the city. If the council was to encourage smaller lots to be offered to these community organisations, this would enable them to prove their credibility and give them project experience.

Using energy opportunities to benefit deprived communities and local businesses

2.15 The Panel was also struck by the evidence from Kirklees Council about how it used renewables in housing in such a way that it retained benefits for the deprived communities concerned. The Panel would welcome the development of projects in this city which enable those who are experiencing fuel poverty to retain the benefits of installing renewables. The Panel hopes that such projects could also be used to encourage the development of social enterprises, training schemes and community groups to provide some of the renewable energy too.

Supporting small and medium projects at the city scale

2.16 Evidence to the Panel highlighted that potential developers and installers and community groups were primarily seeking advice, guidance and help from the council in setting up small and medium sized renewables projects.

These projects were also the ones most likely to bring local benefits (due to the local multiplier effect). City scale projects are likely to be where the council could have greater influence and help create local opportunities. Although the Panel welcomed the Rampion off-shore wind project which is being developed in Brighton & Hove,

Recommendations

These recommendations are listed below in the order in which they appear in the report. The full details of each recommendation are included in Section 8 of this report.

Recommendation 1: Council plans to invest in sustainable energy

The Strategic Director, Place, to publish in 3 months time a public document setting out the council's plans to invest in sustainable and renewable energy.

Recommendation 2: Encouraging the city to invest in sustainable energy

The Strategic Director, Place, to approach major local land-owners and developers (including Shoreham Harbour) to explore as a matter of urgency how they can incorporate sustainable energy in their developments. The Strategic Director, Place, to report back on progress in 3 months time.

Recommendation 3: A sustainable energy programme for the city

The council to feed into a city wide energy planning process. This programme could be developed by the City Sustainability Partnership, if sufficiently resourced, to produce a city wide sustainable energy programme, to ensure that sustainable energy is integrated into all appropriate projects.

Recommendation 4: A council policy on sustainable energy

The Strategic Director, Place, to develop a corporate policy on sustainable energy which would bring together the work being undertaken across the authority.

Recommendation 5: A sustainable energy team

The council to explore how to establish a dedicated team – for example, a Sustainable Energy Agency - to take forward sustainable energy initiatives in the city.

Recommendation 6: Long term strategic planning

The council to undertake, or enable, a study on renewable energy potential in the city over the next 10 years.

Recommendation 7: A heat mapping exercise

The Strategic Director, Place, to ensure that a heat mapping exercise is undertaken.

Recommendation 8: A priority for Intelligent Commissioning

The Strategic Director, Place, to consider the suitability of sustainable energy as a priority for Intelligent Commissioning and identify how both sustainable and renewable energy could be embedded in the council's planning process.

Recommendation 9: Monitoring sustainable energy

The Head of Planning and Public Protection to identify a resource to monitor renewable energy projects in the city and establish a monitoring system which enables learning from these projects to inform future policy.

Recommendation 10: Training and employment - opportunities and gaps

The Strategic Director, Place, to ask the Economic Development team to review and identify the training and employment suppliers for this sector; including the opportunities and gaps – e.g. apprenticeships, helping job seekers, City Employment Skills Plan and potential links to the city's Economic Partnership and the 'Coast to Capital' Local Enterprise Partnership .

Recommendation 11: Raising the profile of renewables

The Strategic Director, Place, to establish a campaign to raise the profile of renewable energy.

Recommendation 12: A statement of ambition

The City Sustainability Partnership to be resourced to link up with universities, developers and installers in the city, community groups, as well as energy utility companies and developers experienced in city-scale renewables in other cities to produce a statement of ambition on sustainable energy for Brighton & Hove.

Recommendation 13: Helping community energy

The Strategic Director, Place, to ensure that the Citywide Sustainable Energy programme would have as a key aim to use the growth of this sector to assist the community.

3. Background to the Panel

Why the Panel was set up

3.1 The Environment and Community Safety Overview & Scrutiny Committee (ECSOSC) resolved to establish a Scrutiny Panel on Renewable Energy Potential on 13th September 2010.

This Panel had been suggested because:

'…there has been no large scale support or uptake of renewable energy in the city'.[2]

The aim was to find out:

'What is the renewable energy potential of the city? Is this being maximised and if not, why not?[3]*'*

Focus of the panel

3.2 The Panel agreed that the focus of the review was to be:

- What can be learnt from other cities?
- What is the renewables potential in Brighton & Hove and which technologies should the city realistically go for?
- How can the city overcome barriers to much more renewable energy (RE) generation locally e.g. visual impact
- What support is needed to enable more generation, especially community schemes?[4]

Terms of reference

3.3 The terms of reference (TOR) for the Panel were:

1. To understand how Brighton & Hove City Council (BHCC) can ensure the growth of renewable energy in the city
2. To assess how best to take advantage of the financial benefits which are currently available, including the Feed In Tariff (FIT) scheme
3. To consider what are the resources for renewables and how prioritisation is affecting decisions on renewables
4. To assess what should be the renewables policy, priorities and targets for the city
5. To identify the opportunities offered by this sector at the city scale. For example, the employment and business opportunities that could come from a growth in Solar PhotoVoltaic (PV) installations in the city
6. To identify the barriers to local energy generation/projects that are already working and could be expanded
7. To assess which are the best technologies to encourage and develop in the city

[2] Work Programme Report to ESCOS on 13/09/10 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=2364&T=10

[3] ibid

[4] Scoping report of the Panel

8. To judge what scale can each technology be used or be realised at
9. To recommend what are the priorities for progress e.g. by tenure, method of heating/lighting and measurements/targets
10. To identify which schemes will benefit the community and/or which ones can deliver the targets
11. To identify potential partners for delivering
12. To consider how to monitor what is installed and to review council policy and practice[5]

Why hold a Panel now?

3.4 The national Feed-In Tariff (FIT) currently provides a very strong incentive for renewable energy in the UK. The Government is pushing local power and heat generation and there is broad political consensus on this nationally. However, the Government recently announced that the FIT rates will drop in 2012 for projects over 50kW. This suggests that the financial incentives to grow this sector will diminish over time.

Panel meetings

3.5 The Panel held one private scoping meeting and four public meetings. They heard from 24 witnesses and received written evidence from 12 contributors. The details of the meetings held, the minutes, written evidence and additional papers and comments submitted to the Panel are printed in Volume 2 of this report (which is available from the Scrutiny Team: scrutiny@brighton-hove.gov.uk) and will be made available on the council's website.

Links to previous scrutiny panels

3.6 This Scrutiny Panel follows recent inquiries into both Environmental Industries and Climate Change Adaptation in the city. Where relevant, the findings and recommendations of this Panel have been linked to these previous scrutiny panels.

[5] Scoping report of the Panel

WITNESSES WHO GAVE EVIDENCE (IN ORDER OF APPEARANCE)

Name	Title	Organisation
Councillor Ayas Fallon-Khan	Cabinet Member - Enterprise, Employment & Major Projects and Lead Councillor for Sustainability	
Geoff Raw	Strategic Director, Place	Brighton and Hove City Council (BHCC)
Patrick Allcorn	Assistant Director	Department for Energy and Climate Change (DECC)
David Payne	Sole proprietor	Cissbury Consulting
Will Cottrell	Chair	Brighton Energy Co-op
Judith Beard	Sustainability Policy Co-ordinator	Eastleigh Borough Council
Chris Rowlands	Director	OVESCo (Ouse Valley Energy Services Company Ltd)
Michael King	Associate	Combined Heat and Power Association (CHPA), a co-founder of Aberdeen Heat & Power (a not-for-profit ESCo)
Sayed Ahmed	Consultant	Arup
Jae Mather	Director of Sustainability	Carbon Free Group
Peter Davies	Development Director	Shoreham Port Authority
Dr Phil Webber	Head of the Environment Unit	Kirklees Council
Howard Johns	Managing Director	Southern Solar, also the Chairman of the Solar Trade Association and the Founder of OVESCo
Ross Gilbert	Director	Quoin Estates and Developments
Daren Howarth	Consultant	CLEVEL
Helmut Lusser	Chair	Hove Civic Society
John Kapp	Secretary	Renewables Infrastructure Group (RIG), Hove Civic Society
Thurstan Crockett	Head of Sustainability and Environmental Policy	BHCC

Martin Randall	Head of Planning and Public Protection	BHCC
Roger Dowty	Design and Conservation Manager	BHCC
Sam Rouse	Air Quality Advisor	BHCC
Angela Dymott	Head of Property and Design	BHCC
Glynnan Barham	Energy and Water Manager	BHCC
Jugal Sharma	Lead Commissioner Housing	BHCC
Nigel Manvell	Value for Money Programme Director	BHCC

4. Renewable energy – a national overview

What is sustainable energy?

4.1 Sustainable energy refers both to zero and low carbon technologies. Zero carbon technologies produce heat or energy from sun, wind and water. They are called zero carbon because they produce no Carbon Dioxide (CO_2) during operation. The kinds of energies which are considered to be genuinely zero carbon are:

- Wind turbines
- Solar thermal (hot water)
- Solar PhotoVoltaic (which generates electricity)
- Hydro and marine (such as tidal and wave)

Local decentralised power, or heat, from these is often referred to as microgeneration.

Low carbon technologies may also use grid electricity or mains gas to generate heat or power more efficiently, or employ fuels that have a relatively small CO_2 footprint (e.g. biofuel). They are called low carbon because they result in lower CO_2 emissions than traditional mains gas or electricity. They include:

- Geothermal and ground sourced heat pumps (GSHP), which require energy for pumping, fuel cells (which require electricity to make hydrogen)
- Combined heat and power (CHP) systems, which are frequently used in piped, district heating (DH). CHP can use renewable fuels such as biomass, biodiesel or renewable gas, e.g. from food waste or sewage treatment.

These zero and low carbon technologies are all sometimes called more 'sustainable energy' operations.

What is renewable energy?

4.2 A key component of sustainable energy is renewable energy. These are the zero carbon technology sources listed above which:

'…do not deplete the earth's natural resources and do not create added waste products … [so] they can be used indefinitely without degrading the environment.[6]

The UK Renewable Energy Strategy was produced in 2009. This strategy is aimed at reaching the goal of 15% of energy from renewables by 2020, and suggests the following targets:

- Electricity (according to Government figures more than 30% could come from renewables by 2020)
- Transport (could provide 10%)

[6] Website for the Renewable Energy Association http://www.r-e-a.net/

- Heat (could provide 12% - currently around 1%)[7]
- Renewable cooling

This Scrutiny Panel was established to consider how Brighton & Hove could realise its potential for renewable energy, and make its contribution to delivering these national targets.

Why is renewable energy important?

4.3 It is recognised that there is a need to radically increase the use of renewable energy. The main reasons are to:

- Promote the security of energy supply (this includes reducing both overall demand for energy and dependency on imported energy, increasing energy self-sufficiency and addressing concerns about peak oil)
- Help tackle climate change – as energy production is currently responsible for the largest share of UK emissions of all greenhouse gases[8]
- Respond to increasing energy costs
- Address pollution problems with conventional fuel extraction and combustion
- Develop new sectors for the economy

Issues also considered by the Panel

4.4 The Panel also received evidence on, and discussed, the issues of energy efficiency and low carbon technology, even though they were not strictly part of the TOR of the inquiry – distinctions between types of sustainable energy are not necessarily recognised in practice by the people developing these technologies.

Energy efficiency

4.5 Although the focus of the Panel was on renewable energy in the city, they were aware of the importance of working to improve energy efficiency at the same time. Sayed Ahmed, a consultant for Arup, told the Panel that the Greater London Authority has used the following hierarchy of importance:

1. Reducing energy
2. Using low carbon technology – consumers need to understand how much $C0_2$ is used by different technologies
3. Increasing the use of renewable energy[9]

<u>Green Deal</u>

4.6 The key national incentive which is currently being developed to encourage energy efficiency is the Green Deal. The key national incentive which is currently being developed to encourage energy efficiency is the Green Deal.

[7] The UK Renewable Energy Strategy
http://decc.gov.uk/assets/decc/What%20we%20do/UK%20energy%20supply/Energy%20mix/Renewable%20energy/Renewable%20Energy%20Strategy/1_20090717120647_e_@@_TheUKRenewableEnergyStrategy2009.pdf
[8] ibid
[9] Sayed Ahmed, Evidence to the Panel, 18.01.11

This will establish a framework to enable private firms to offer consumers energy efficiency improvements to their homes, community spaces and businesses at no upfront cost, and recoup payments through a charge in instalments on the energy bill. This increases the incentive for landlords, tenants and owner occupiers to carry out thee works.

4.7 It has been estimated that 14 million insulation measures including loft, cavity and solid wall insulation could be carried out in Britain's homes. The most energy inefficient homes could save on average around £550 per year by installing insulation measures under the Green Deal.[10]

4.8 In March 2011 it was announced that 1000 apprentices could receive funding for their training as part of the initiative. According to the Energy and Climate Change Secretary, Chris Huhne:

'The new green economy is going to support jobs, growth and help defend Britain from high oil prices…The Green Deal is likely to support 100,000 jobs by 2015 and up to 250,000 when it reaches its peak and will be great news for local economies with local firms encouraged to get involved in this new exciting industry.'[11]

Low Carbon technologies

4.9 The Panel heard evidence about two key forms of low carbon technologies which could be seen as part of a sustainable energy strategy for the city.

Combined Heat and Power (CHP)

4.10 This is a process to capture waste heat from electricity generation to use it for heating processes. It can be offered at different scales ranging from power station level to individual buildings. According to the Combined Heat and Power Association (CHPA), the advantages of CHP include:

- Carbon savings
- Improved energy security as the power comes from a range of sources
- Greater affordability – 80% of the country is reliant on gas for thermal needs and CHP enables it to be reused more efficiently
- Enabling local heat distribution, which can increase local control and accountability[12]

Sayed Ahmed told the Panel that:

'…gas CHP had a future in urban areas of high heat density as a transitional carbon reduction technology… which could help deliver heat networks which in turn could be used for renewable energy options as they became more widely deliverable.'[13]

[10] DECC website
[11] DECC website http://www.decc.gov.uk/en/content/cms/news/pn11_021/pn11_021.aspx
[12] Michael King, Evidence to the Panel, 18.01.11
[13] Sayed Ahmed, Evidence to the Panel, 18.01.11

District Heating (DH)

4.11 This is a system where the heat for an area is produced centrally, and hot water or steam is transported to the buildings through a network of pipes. It can be an important option available to communities, local authorities and developments seeking to lower fuel bills and reduce carbon emissions, as such systems use a variety of low-carbon and renewable sources to generate the heat.[14]

The Panel heard that DH has the following benefits:

- Scale – it could use technologies which would not be available to single buildings
- Different users use power at different times of day – so you can aggregate the power and make more efficient use of the energy
- Better fuel utilisation[15]

However, DH projects could not be done everywhere because they were:

- Location specific, requiring a density and diversity of buildings
- Dependent on an anchor load (single large consumer) e.g. hospital or leisure centre[16]

Michael King of the CHPA told the Panel that local authorities '…*were key to making DH projects happen'.*[17] Therefore BHCC could help in the following ways to enable a DH scheme:

- Incorporate it into the planning framework, which reduces the project risk and capital costs
- Assist with the financial modelling
- Offer its own buildings as an anchor load. An example was given of *'Aberdeen where these were high rise social housing estates, these were done in clusters and then joined into a ring-main to give them resilience and energy security'*.[18]

The Panel were keen to ensure that, where appropriate, the work to increase sustainable energy in the city would be carried out alongside work to improve energy efficiency and reduce energy use.

National plans and targets for the growth of renewable energy

4.12 This section outlines the key national plans, policies and targets which have been developed for renewable energy.

[14] DECC website http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/distributed_en_heat/district_heat/district_heat.aspx
[15] Michael King, Evidence to the Panel, 18.01.11
[16] ibid
[17] Michael King, Evidence to the Panel, 18.01.11
[18] Michael King, Evidence to the Panel, 18.01.11

The Climate Change Act 2008

4.13 The Act set legally binding targets to reduce greenhouse gas emissions in the UK, namely to achieve a reduction of 34% by 2020 and at least an 80% reduction for 2050.[19]

4.14 The UK also has a legally binding target to deliver 15% of our energy from renewables by 2020. The Government has stated its *'firm commitment to renewable energy.'*[20]

The funding and growth for this sector in the UK was assessed recently by the Committee of Public Accounts. When publishing the report, the Chair of this Committee emphasised their concern that:

'Given the urgency of the issue, progress in meeting …targets has been unacceptably slow over the last decade.'[21]

Localism Bill 2010

4.15 The Bill sets out the Government's intention to returning more power from central government to local communities, but has not yet passed into law. The measures which could affect sustainable energy developments are:

- Giving communities a greater say over their area by a new right to challenge the take over of services, bid to buy local assets and veto excessive council tax rises
- Restoring local control over local planning by replacing the Infrastructure Planning Commission with a democratically accountable system for major projects. The Bill will put neighbourhood plans as the new building blocks of the planning system where communities have the power to grant planning permission if a local majority is in favour
- Giving local government a stronger financial stake in the local economy to attract business. Local authorities would be able to grant discretionary business rate discounts and give a greater voice to local businesses

4.16 These measures could have both a positive and negative effect on renewable energy developments. The reform to the planning system for example could enable more community renewable energy projects.

Renewable UK's Director of Communications, said:

'There is no doubt that this Bill, once it becomes law, will dramatically alter the rules for developing renewable energy projects, and the industry will have to

[19] Climate Change Act 2008, http://www.legislation.gov.uk/ukpga/2008/27/contents
[20] DECC Annual Energy Statement, http://www.decc.gov.uk/assets/decc/What%20we%20do/UK%20energy%20supply/237-annual-energy-statement-2010.pdf
[21] Parliament press release on the Committee of Public Accounts report on government funding for renewable energy technologies http://www.parliament.uk/business/committees/committees-a-z/commons-select/public-accounts-committee/news/pac-7th-report/

follow suit. We could be looking at a radically different planning process, with Councillors allowed or even encouraged to campaign ahead of the decision, and the result in some cases being made by referendum. We will need to consult with communities ahead of logging an application and make sure that the economic and community benefits are clear.'[22]

4.17 According to Patrick Allcorn from the Department of Energy and Climate Change (DECC):

'…the Feed In Tafiff could be used to provide small returns for the community to reinvest in local projects'[23]

Carbon Plan

4.18 This is a Government-wide draft plan of action on climate change. It covers both domestic and international activity, for the next 5 years, and was published on 8th March 2011. It sets out a vision:

' …of a changed Britain, powered by cleaner energy used more efficiently in our homes and businesses, with more secure energy supplies and more stable energy prices, and benefiting from the jobs and growth that a low carbon economy will bring.'[24]

Consultation on Microgeneration Strategy

4.19 Microgeneration describes the small scale production of renewables at '…*community and small commercial sites'.* [25] This is recognised as an important way of encouraging the growth of renewables. A national consultation paper was published at the end of 2010 to investigate:

'…how to overcome the barriers to increase consumer confidence and sustainably grow the industry'[26]

The key themes identified were:

- **Quality**: To ensure consumers have confidence that equipment and installation is reliable and adheres to the highest standards;
- **Skills**: To develop the microgeneration supply chain to ensure it is properly equipped with the right people to meet the expected rise in demand, as well as creating and sustaining jobs in the UK;
- **Technology**: To look at market intelligence, a systems approach and performance improvement.
- **Information and Advice**: To provide more accessible advice and information about microgeneration to consumers. '[27]

The issues highlighted in bold were all highlighted as important issues in the evidence presented to the Scrutiny Panel.

[22] UK Renewables website, http://www.bwea.com/media/news/articles/pr20101214.html
[23] Patrick Allcorn, Evidence to Panel, 06.12.10
[24] The Carbon Plan, http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/carbon_plan/carbon_plan.aspx
[25] DECC website http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx
[26] DECC website http://www.decc.gov.uk/en/content/cms/news/PN10_131/PN10_131.aspx
[27] DECC website http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx

Other key policies referring to renewables include the Heat and Energy Saving Strategy (HESS)[28], Low Carbon Transition Plan (LCTP)[29] and the Renewable Energy Use Plan (UKREP).[30]

The national financial opportunities from renewables

4.20 It has been calculated that reaching the 2020 renewable energy targets would need £136bn of investment.[31] Despite the levels of incentives being offered to grow renewables, private sector funding is also needed on a significant scale. The growth of this sector presents considerable investment opportunities for developing new businesses and social enterprises.

This section describes the key incentives which are being offered to encourage the growth of renewable energy.

The current incentives for renewable energy

4.21 The tight timescale to achieve these legally binding targets have led to a wide range of incentives being offered to encourage the development of this sector.

Evidence to the Panel highlighted that:

'…the cost-effectiveness of these [renewables] options is heavily dependent on the subsidies available. The majority of the…schemes which have come forward are as a result of funding schemes introduced either at the national or local level.'[32]

A representative from DECC told the Panel that introducing these incentives had:

'… set the direction of travel for local authorities to develop renewables [and] ***Members need to decide if they want to tell the electorate that they had not taken advantage of the opportunities****. But by 2020 [they] want 1/3 of electricity to be renewable and 1/8 of heat.'*[33]

The main incentives for this sector are outlined below.

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[28] http://hes.decc.gov.uk/consultation/download/index-5469.pdf

[29] http://www.decc.gov.uk/assets/decc/White%20Papers/UK%20Low%20Carbon%20Transition%20Plan%20WP09/1_20090724153238_e_@@_lowcarbontransitionplan.pdf

[30] http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/ored/25-nat-ren-energy-action-plan.pdf

[31] http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/ored/25-nat-ren-energy-action-plan.pdf

[32] Sayed Ahmed, Evidence to the Panel, 18.01.11

[33] My emphasis, Patrick Allcorn, Evidence to the Panel, 06.12.10

Feed in Tariff (FIT)

4.22 The FIT offers a legally guaranteed minimum payment per unit of renewable electricity generation. It was introduced in April 2010:

'…to incentivise small scale (less than 5MWe) low carbon electricity generation, particularly by organisations, businesses, communities and individuals who are not traditionally engaged in the electricity market … and will allow many people to invest …in return for a guaranteed payment for both the electricity they generate and export'.[34]

By 2010, FITs were in operation in 19 other EU member states as well as a number of other countries worldwide. They were described in the UK Renewable Strategy as offering *'…a hassle free and guaranteed income stream'*.[35]

The Panel heard that the introduction of FIT had been a *'game changer'*[36], particularly in growing the Solar PhotoVoltaic (PV) sector, because:

'…there has been a 10 fold increase in PV installations when compared to the previous year'.[37]

It had been expected that the Tariff rates would remain unchanged until a review in 2013, which would set out new rates and refocus on the most cost effective technologies. Patrick Allcorn from DECC confirmed that such a review:

'…would be based on reduced costs of installing and maintaining renewables. This is to ensure that people are not making big profits from renewables'.[38]

4.23 However, on March 18th 2011 the Government published proposals to reduce the support for all new PV installations larger than microgeneration size (50kW) and stand alone installations. The rate of support for anaerobic digestion may be increased.

This proposal was described by Greg Barker, the Climate Change Minister, as *'…part of plans to protect financial support for homes, communities and small businesses.'*[39] This fast track review took place:

'…after evidence showing that there could already be 169 MW of large scale solar capacity in the planning system – equivalent to funding solar panels on the roofs of around 50,000 homes if tariffs are left unchanged.'[40]

A separate comprehensive review of FIT is now underway to:

[34]DECC website http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx
[35] The UK Renewable Energy Strategy, 2009
[36] Sayed Ahmed, Evidence to the Panel, 18.01.11
[37] ibid
[38] Patrick Allcorn, Evidence to the Panel, 06.12.11
[39] DECC website, http://www.decc.gov.uk/en/content/cms/news/pn11_027/pn11_027.aspx
[40] ibid

'…determine how the efficiency of FITs will be improved to deliver £40 million of savings in 2014/15 and look at all aspects of the scheme.'[41]

This review will be completed by the end of 2011.

4.24 Howard Johns from Southern Solar told the Panel that such a review would be *'…a complete nightmare for the solar industry'*.[42] One of his concerns was that the FIT scheme would soon be part of the taxation process and *'…if take up was too good, then the expenditure would need to be reduced'*.[43]

Assessing how Brighton & Hove could make best use of the opportunities coming from FIT was one of the main reasons for undertaking this Scrutiny Panel now. As David Payne told the Panel:

'Each day you are not investing, you are not getting a return. If one has the cash or can borrow prudentially, then you should get on with it'.[44]

Renewable Heat Incentive (RHI)

4.25 Increasing the amount of renewable heating is vital, because heat currently accounts for around half (49%) of the final energy demand consumed in the UK and roughly half of all UK's carbon emissions. The RHI is being described as an:

'…incentive policy to revolutionise the way heat is generated and used in buildings and homes…[it is a] £860m government scheme expected to increase green capital investment by 4.5 billion up to 2020, stimulating a new market in renewable heat'.[45]

4.26 The scheme will operate by making:

'…payments to those installing renewable heat technologies which qualify for support, year on year, for a fixed period of time. It is designed to cover the difference in cost between conventional fossil fuel heating and renewable heating systems (which are currently more expensive), plus an additional rate of return on top.'[46]

4.27 The incentive will be offered in two phases:

- Firstly, long term tariff support will be targeted at non domestic sectors i.e. the industrial, business and public sectors as well as support of around £15m for households

[41] ibid
[42] Howard Johns, Evidence to the Panel, 07.02.11
[43] Howard Johns, Evidence to the Panel, 07.02.11
[44] David Payne, Evidence to the Panel, 06.12.10
[45] DECC website http://www.decc.gov.uk/en/content/cms/news/PN2011_023/PN2011_023.aspx
[46] DECC website http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/incentive/incentive.aspx

- Secondly, households will be moved to the same form of tariff support offered to the non-domestic sector (this change will be timed to align with the Green *Deal 'which is intended to be introduced in October 2012*[47]

The technologies supported by the scheme will include:

> *'…solid and gaseous biomass, solar thermal, ground and water source heat-pumps, on-site biogas, deep geothermal, energy from waste and injection of biomethane into the grid.*[48]

This scheme is also aimed at supporting 150,000 existing manufacturing, supply chain and installer jobs.

Carbon Reduction Commitment (CRC)

4.28 The CRC is a mandatory scheme to improve energy efficiency and cut emissions in large public and private sector organisations, which are responsible for around 10% of the UK's emissions.

The CRC scheme features an annual performance league table that ranks participants on energy efficiency performance. Together with the reputational considerations, the scheme encourages organisations to develop energy management strategies that promote a better understanding of energy usage.

The Comprehensive Spending Review

4.29 The Review was presented by the Government in October 2010 and included the following relevant announcements:

- A green investment bank to be set up – which will get £1bn of public money put in as a 'backstop'.
- £200m for low carbon technologies including off shore wind and the manufacturing infrastructure at port sites.
- The introduction of the RHI (see above)
- The Warm Front Initiative was made smaller and more targeted and will be worth £110m in 2011/12 and £100m in 12/13. From 2013, support for heating and insulation for the vulnerable will be given through the Green Deal for energy efficiency.

Community Infrastructure Levy (CIL)

4.30 This is a new levy that local authorities in England and Wales can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure that the council, local community and neighbourhoods want – for example, new or safer road schemes, park improvements or a new health centre. It applies to most new

[47] DECC website http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/incentive/incentive.aspx

[48] ibid

buildings and charges are based on the size and type of the new development.[49]

The Panel heard that:

'…this may be the way forward to provide funding for CHP and district heating proposals.'[50]

New investment funds looking for local opportunities

4.31 The Panel became aware that a number of schemes were being developed to fund community-led energy projects. One example is the Community Generation Fund, a national-scale initiative which will provide a catalyst for business and local community infrastructure projects. This fund recognises that a community may want to:

'…take on this challenge but is curtailed by lack of capital together with the necessary support and mentoring.'[51]

The Community Generation Fund will be a £15million, 10-year fund, aiming to provide funding to around 100 projects nationwide. It is estimated that these projects will create over 30,000MWh per annum of 'Green Energy', equal to the energy needs of around 8,000 UK households and equating to a saving of 13 million CO_2 per annum. The Fund will provide funding at both the pre-planning and post-planning consent stages.

This section of the report has described a number of the key financial incentives which are being offered to encourage the growth of renewable energy and demonstrated that this is a rapidly changing area of national policy.

National barriers to the expansion of renewable energy

Leadership

4.32 Jae Mather from the Carbon Free Trust told the Panel that:

'…the biggest barrier to RE was lack of vision. The UK was one of the most risk averse nations in the world [and]…was ignoring the RE work being done in Europe. Kirklees was a great example of carrying out a large scale project. They were able to retrofit 10,000 homes after putting £3 on the Council Tax.'[52]

Too many policies

4.33 Due to the range of incentives on offer, David Payne told the Panel that:

'*There was a danger of taking too much time undertaking too many studies and missing out on the financial opportunities presented.*'[53]

[49] http://www.communities.gov.uk/documents/planningandbuilding/pdf/1772927.pdf
[50] Martin Randall, Evidence to the Panel, 16.02.11
[51] http://www.financesoutheast.com/ourfunds/index.aspx?id=1778
[52] Jae Mather, Evidence to the Panel, 18.01.11
[53] David Payne, Evidence to the Panel, 06.12.10

Skills and training provision

4.34 Patrick Allcorn from DECC stressed the importance of ensuring a sufficient level of skills and training provision is provided, otherwise this will act as a barrier to the growth of the sector:

'Green jobs are key, including:

- *Manufacturing*
- *Installing*
- *Maintenance*

It is important to upskill the relevant workforce in the city e.g. plumbers, and ensure they are trained and accredited to work with renewables.'[54]

Comparison to Europe

4.35 There has been a significant growth in renewable energy in Europe over the past decade. This sector has gone from providing 200,000 European jobs in 2004 to 550,000 in 2010. Renewable energy now represents 12% of Europe's final energy consumption. It has been predicted that by 2020 this sector could provide jobs for over 2 million citizens in Europe.[55]

Figures were published in 2009 which showed that:

'The UK is third from bottom in a league table of renewable energy across Europe [and only]… received 1% of its energy from renewables in 1995 and just 1.3% a decade later. Only Luxembourg, at 0.8% and 0.9%, and Malta, which has no renewable energy, came lower on the list.'[56]

In comparison:

'Top of the EU list was Sweden, with 35.7% of its final consumption of energy coming from renewables in 1995 and 40.8% in 2005.'[57]

[54] Patrick Allcorn, Evidence to the Panel, 06.12.10
[55] EREC, Re-thinking 2020, 2010
http://www.erec.org/fileadmin/erec_docs/Documents/Publications/ReThinking2050_full%20version_final.pdf
[56] Guardian, http://www.guardian.co.uk/business/2009/jun/15/uk-trails-eu-in-renewables

[57] http://www.guardian.co.uk/business/2009/jun/15/uk-trails-eu-in-renewables

5. Regional opportunities for renewable energy

5.1 This section of the report considers the regional opportunities which are being identified for renewable energy. A recent report into the 'Renewable and Decentralised Energy Potential in South East England' concluded that:

'The level of renewable energy deployment in the south east over the next 10-20 years will depend on the degree of aspiration and ambition for change to a more sustainable future …[and will] require a large number of renewable energy developments of different types and scales.'[58]

David Payne, a Consultant who had been a Planning Manager at the Regional Assembly, emphasised the importance of looking for:

'…both economies of scale, beyond the city boundaries … [and that] Local Economic Partnerships (LEPS) may have a role'[59]

Coast to Capital Local Economic Partnership

5.2 Brighton & Hove City Council has participated in the development of a Local Economic Partnership (LEP) bid. The area covered by this partnership bid stretches east from Chichester to Brighton & Hove, including the Gatwick Diamond.

According to the Brighton & Hove City Employment & Skills Plan (CESP) for 2011-2014:

'The Coast to Capital Enterprise Partnership area aims to support the development of 100,000 private sector jobs; promote entrepreneurship in schools and colleges and focus on supporting the growth of internationally trading businesses.'[60]

One of the focuses of this bid is on *'…creating the right conditions for business to flourish,*[61] including:

- Sites and premises
- Skills development
- Business support
- Planning and other policies
- Transport[62]

The first four of these issues have also been raised as concerns in this Scrutiny Panel.

[58] My emphasis, Review of Renewable and Decentralised Energy Potential in South East England, http://www.se-partnershipboard.org.uk/pdf/nat_res/potential_re_in_se.pdf
[59] David Payne, Evidence to the Panel, 06.12.10
[60] Brighton & Hove City Employment & Skills Plan (CESP) for 2011-2014
[61] Coast to Capital LEP Document http://www.fsb.org.uk/150/assets/ws714%20lep%20proposal_final-lowres.pdf
[62] ibid

Sustainable energy in Brighton & Hove

6.1 This chapter of the Panel's report focuses on how the sustainable energy sector is being developed in the city.

How suitable is the city for renewables?

6.2 A study of the characteristics of the city undertaken in 2009 concluded that:

> *'Brighton & Hove is an historic English city and resort. It is famous for its cosmopolitan lifestyle, elegant Regency architecture, its iconic Victorian seafront and its high quality churches. It has expanded progressively during the 19th and 20th Centuries along the coast and onto the downs. During the later part of the 20th Century the city has undergone significant redevelopment to meet changing needs and aspirations.'*[63]

There are 120,000 homes in the city and the 34 conservation areas account for around 20% of the city's built up areas. The urban areas of the city are characterised by medium to high density levels of occupation.

Different areas in Brighton & Hove

6.3 A study of types of neighbourhoods in the city divided them into four different area types:

- Downland settlements
- Suburban downland fringe
- Urban
- Urban coastal[64]

For each area type there is a breakdown of the kinds of accommodation that can be found there (see http://www.brighton-hove.gov.uk/downloads/bhcc/conservation/UrbanStdy_Introduction_final.pdf). This assessment, and other mapping work, could be used to inform decisions about which forms of sustainable technology would be suitable for different neighbourhoods in the city and what work the council could do to encourage the take up of renewable energy in those areas. For example, considering whether there would there be an appropriate technology to install on a House in Multiple Occupation (HMO).

For example, the Chair of the Hove Civic Society told the Panel he believed that:

> *'…in Hove the geography made the installation of renewable energy on individual houses, less than optimal.'*[65]

[63] Urban Characterisation Study, 2009 http://www.brighton-hove.gov.uk/downloads/bhcc/conservation/UrbanStdy_Introduction_final.pdf
[64] ibid
[65] Helmut Lasser, Evidence to the Panel, 07.02.11

As a result:

'This area needed careful treatment and work needed to be done on hard to treat homes, BHCC could offer advice and information to residents and help them procure good quality installations.'[66]

Which technologies would work well in the city?

6.4 One of the TOR of the Panel was *to '…assess which are the best technologies to encourage and develop in the city'*.[67] The Panel decided to focus on land-based renewables, because:

- It was felt that these are the forms of renewable energies where the council could have a material influence in terms of policy, planning, support and its own energy management activities
- Land-based renewables present greater opportunities for local business development and social enterprise in the shorter-term
- These renewables can improve the resilience to energy price volatility for households and local business

Land-based technologies would include:

- Solar panels – electricity and heat
- Onshore wind
- Biomass and biofuels
- Ground/air source heat pumps

It was felt to not be suitable to consider the following technologies in relation to the city:

- Marine – because wave and tidal are either not suitable here, too expensive or too far off deployment.
- Offshore wind – this was not seen as a suitable focus of the Panel as the Rampion project is a national infrastructure project which cannot be greatly influenced by the council (*see section 8 for a brief description of the project)*
- Hydro (power from rivers/dams) – there was no potential in this location

The Panel felt that any future assessment of renewable energy potential in the city, could include:

- Geothermal – including ground source heat pumps (a technology which will be supported by the RHI)
- Geopressure

<u>Technologies which could be used on council premises</u>

6.5 The Panel heard that the council had recently carried out an assessment on the potential for installing different types of technology on their premises. This research reached the following conclusions:

[66] Helmut Lasser, Evidence to the Panel, 07.02.11

[67] Scoping report of the Panel

- Solar panels - would be a suitable technology for a range of sites in the city
- Wind turbines – that potentially the best places to locate such turbines *'….would be more likely to receive a significant amount of opposition*'
- Ground and air source heat pumps - would be suitable for large refurbishment projects
- There was potential for CHP and large and small scale absorption chilling technology - in partnership with Energy Service Companies (ESCos)[68]

A focus on solar?

6.6 Howard Johns, from Southern Solar, told the Panel why his organisation was focussing on solar PV and thermal:

- 90% of homes were suitable for solar compared to 1 in 1,000 for a wind turbine
- The PV market in the UK had increased from 10MW last year to 50MW this year - FIT had stimulated the market and been funded by a levy on bills

These are also the reasons why the projects which are currently being planned by the council would be using solar technology.

Wind turbines

6.7 A developer told the Panel that in his experience, the council:

'…lacked ambition when it came to wind energy, even though this technology could produce large amounts of energy.'[69]

This had been in contrast to his *'very good experience'*[70] with the council in relation to solar PV.

6.8 He also highlighted that:

'A lot of market research had shown that there was a poor public image of wind energy. However there had been 84-85% public approvals of the plans at Glyndebourne'.[71]

In his experience another of the problems faced with projects was *'…that the planning application process takes up a lot of resources'.*[72]

6.9 **The Panel believes that the mapping exercise proposed in Recommendation 7 would provide a good basis for assessing the potential for renewable energy and determining which technologies would work best in the city.**

[68] Glynnan Barham, Evidence to the Panel, 16.02.11
[69] Ross Gilbert, Evidence to the Panel, 07.02.11
[70] ibid
[71] Ross Gilbert, Evidence to the Panel, 07.02.11
[72] Ross Gilbert, Evidence to the Panel, 07.02.11

The role of councils in growing renewables

Why are local authorities important?

6.10 This section of the report considers the roles that councils can play, and the powers they possess, to encourage the growth of this sector. According to national policy on renewables, local authorities have:

'…a vital role in shaping their communities to support delivery of the UK's long-term energy and climate change objectives'[73]

An Energy Savings Trust survey into consumer attitudes found that 63% would like their council to be more active in encouraging renewable energy.[74]

6.11 The recent consultation on the national Microgeneration Strategy emphasised that most stages of decentralising energy technologies would involve local authorities. The key benefit to councils would be:

'…being able to take decisions on long term energy use which affect their communities, businesses and residents.'[75]

Powers given to local authorities

6.12 Having discussed the important role which local authorities can play, this section now describes two important powers which have been given to councils to encourage them to help the growth of renewable energy.

Allowing councils to sell energy

6.13 In August 2010 local authorities were given the power to sell surplus renewable energy to the National Grid. It was calculated that this would enable councils to generate £100m per year. The Energy and Climate Change Secretary Chris Huhne has spoken of his hope that this would usher in '*a new age of municipal energy*'.[76] In a letter to local authorities, he stated that the scheme would provide:

'…a remarkable opportunity for local authorities to contribute further to meeting renewables targets while fully benefiting from renewables incentives, such as feed-in-tariffs.'[77]

The Lead Commissioner for Housing told the Panel that in developing a project to install solar panels on 1,600 council homes:

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[73] http://www.decc.gov.uk/assets/decc/what%20we%20do/supporting%20consumers/household%20energy%20management/1_20100331162131_e_@@_hemenablingframeworkdistrictheating.pdf

[74] The growth potential for microgeneration in England, Scotland and Wales BERR, 2008 http://webarchive.nationalarchives.gov.uk/+/http:/www.berr.gov.uk/energy/sources/sustainable/microgeneration/research/page38208.html

[75] Microgeneration Strategy http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx

[76] As reported on Public Finance Website, http://www.publicfinance.co.uk/news/2010/08/councils-allowed-to-sell-energy-to-national-grid/

[77] Letter from Chris Huhne to local authorities, 9th August 2010 http://www.decc.gov.uk/assets/decc/News/376-unlocking-local-power-huhne-letter.pdf

'The biggest driver was the potential for this to generate income for us over a 25 year period. The Housing Revenue Account [HRA} would borrow £15-£16m; this would have a net return of 8-10%, generating around £500,000 per year for the HRA. We could invest the £500,000 in other energy measures. The investment could be used in the houses …[which were not suitable for solar PV and]… could generate another £500,000 to be reinvested into the HRA. As an investment this only deals with levels of deprivation on council owned properties.'[78]

6.14 **The Panel welcomes the proposal for the council to use income generated from these HRA funded renewable energy projects to re-invest into further energy measures. The Panel looks forward to seeing more detail on this to be included in the tasks described in both Recommendations 1 and 3. They would also encourage consideration of other renewable and low carbon energy technologies.**

Local Planning

6.15 One of the aims of the Localism Bill is to radically reform the planning system, as:

'Ministers believe the current planning system is too centralised and bureaucratic, too adversarial and remote from the communities it affects. The Bill will restore democratic and local control over planning by replacing the Infrastructure Planning Commission with an efficient and democratically accountable system for major infrastructure. [It]… will enable regional planning to be swept away and in its place neighbourhood plans will become the new building blocks of the planning system where communities have the power to grant planning permission if a local majority are in favour.'[79]

The Localism Bill may also transform the housing finance system to make it more *'transparent'*.[80]

What renewable energy is being developed in the city?

6.16 This section outlines what information is currently available about the level of renewables in the city.

How many environmental industries are in the city?

6.17 A recent project to map this sector in Sussex identified 311 environmental organisations in the region (with 92 businesses, or 30% of them located in Brighton & Hove). Renewable energy was the second largest sub-sector identified in the city, accounting for 15 businesses (or 18% of environmental industries here). A finding of the report was that:

'…Brighton & Hove could be well placed to support and encourage the renewable energy sector with 42% of organisations being classified as Environmental Consultancies.'[81]

[78] Jugal Sharma, Evidence to the Panel, 16.02.11
[79] http://www.communities.gov.uk/news/localgovernment/1794971
[80] http://www.communities.gov.uk/news/localgovernment/1794971
[81] Mapping the Environmental Industries in Sussex, Summary Findings, 2010

Monitoring renewable energy in the city

6.18 Evidence to the Panel highlighted that measuring and monitoring the amount of installed renewables in the city currently *'was a real issue*[82]*'*. The Annual Monitoring Report produced by the council, to provide an update on development in the city, includes an indicator (E3) which measures the amount of renewable energy generation by installed capacity or type. However the data provided by the developers is not complete and proving difficult to monitor.[83]

Flagship projects

6.19 The Panel was provided with examples of developments in the city, undertaken either by private developers or the council, which had incorporated renewable energy:

- Downsview Link College – a wind turbine (completed in 2007)
- One Brighton –172 residential units where all space heating and hot water is provided through an on-site biomass boiler, as part of a district heating system. To be operated by an ESCo, set up specifically for the development. Roof mounted PV panels would supply 7,600kWh/yr of electricity. Remaining electricity needs to be purchased from 100% renewable sources off-site (completed in 2010)
- Davigdor School – BREEAM 'very good' including solar panels (completed 2009)
- Westergate Business Centre – including solar pipes, a wind turbine and ground source heat pumps (GSHPs)

The Panel received conflicting evidence on the benefit of pioneering renewable energy schemes in the city. Daren Howarth, who had succeeded in getting the country's first Earthship built in the city, felt that:

'If you build an unusual building that people can come and see, then they can be inspired to do things themselves, taking some of the aspects of the project back with them.[84]

Will Cottrell of the Brighton Energy Co-op observed that:

'…he could hardly see any pioneering renewables in the city… [but] he felt that flagship projects were good'.[85]

However the Lead Member for Sustainability questioned the utility of flagship projects.

The council's Energy and Water Manager warned that it was:

'…important not to leap in to these projects, as we have already seen the price of solar panels come down considerably'.[86]

[82] Thurstan Crockett, Evidence to the Panel, 16.02.11
[83] BHCC, AMR, http://www.brighton-hove.gov.uk/downloads/bhcc/ldf/AMR_2009-10.pdf

[84] Daren Howarth, Evidence to the Panel, 07.02.11
[85] Will Cottrell, Evidence to the Panel, 06.12.10

Although he did describe the planned Norton Road car park project as *'…an example of a flagship project'*.[87] (see 6.33 for more information)

Setting targets

6.20 Will Cottrell told the Panel he believed that *'…setting targets led to setting ambitions'*.[88]

David Payne highlighted that the Isle of Wight had a good renewables policy, which included:

'…setting out targets and making clear their expectations and ambitions which is very useful for developers (including a map of where they do not want developments).'[89]

6.21 **Setting such targets is a very important part of the planning process and will become even more so as planning is localised. They also provide an indication to developers and a benchmark against which to review progress. Therefore the Panel believes that it would be useful to set targets for the growth of renewables in the city, which were at least equal to the national targets, to be included in the council policy on sustainable energy.**

Increasing renewable energy in the city

6.22 This section of the report outlines the evidence which was provided to the Panel on what is being planned to develop renewable energy in the city, by tenure.

The Panel was aware that proposals were in development in the council, principally for its housing stock, but was unable to learn about the detail of these proposals until the very end of the scrutiny process. Nevertheless, the Panel noted that the proposals were quite specific, and do not constitute the kind of city-wide planning, promotion and implementation of renewable energy that they had in mind. The Panel hopes that the processes it outlines in its recommendations will prove more inclusive and open to those interested in promoting renewable energy in the city.

Council homes

6.23 There are approximately 12,000 council homes in the city, which represents 10% of the housing stock.

The key strategic goals in the City-wide Housing Strategy 2009-14 include:

- Goal 4: Making best use of the housing stock

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[86] Glynnan Barham, Evidence to the Panel, 16.02.11
[87] ibid
[88] Will Cottrell, Evidence to the Panel, 06.12.10
[89] David Payne, Evidence to the Panel, 06.12.10 (for further details see http://www.iwight.com/living_here/planning/images/2ProposedSubmissionCoreStrategy.)

- Goal 6: Work with home owners and landlords to maintain and improve the quality of their housing
- Goal 7: Reduce fuel poverty and minimise C02
- Goal 8: High quality and well maintained council housing[90]

Historically the council has invested 'significantly' in insulation and heating and now recognises the importance of exploring the potential of attracting investment for renewables. It is currently assessing how best to introduce a programme of installing solar PV panels on the authority's housing stock. This work is being carried out in conjunction with '…*tenants, our procured Energy Managing Partner (Climate Energy) and other local authority partners'*.[91]

The initial findings were outlined in a report, agreed at Cabinet on 17th March 2011, which emphasised that the scheme would:

- *Significantly raise the profile of RE in the city*
- *Attract a multi-million pound investment and possibly create new business and employment opportunities*
- *Create investment into city housing stock*
- *Reduce the carbon footprint*
- *Allow some council tenants to lower their fuel bills*
- *Create an income stream into the council and subsequently further investment opportunities.'*[92]

6.24 A survey of suitable roof space has identified approximately 1,600 dwellings which could benefit from the scheme. The council is now working to assess the following:

- Funding scheme options
- Potential partners for the scheme
- How the scheme could be rolled out to private sector homes and commercial markets
- How the scheme could interact with the RHI, to offer alternative forms of renewable energy for council homes which are not suitable for solar PV[93]

The options appraisal has concluded that *'…a fully owned and funded model'*[94] would bring the greatest benefits to the city, including:

- Greater chances to create local employment opportunities
- The opportunity to recycle money back into the community
- Assisting the fuel poor
- Enabling the council to *'…play an important role in developing the local renewable energy economy, and support Brighton & Hove businesses'*

[90] http://present.brighton-hove.gov.uk/mgConvert2Pdf.aspx?ID=10020&T=9
[91] ibid
[92] ibid
[93] ibid
[94] http://present.brighton-hove.gov.uk/mgConvert2Pdf.aspx?ID=10020&T=92

- Setting up a *'…platform for other low-carbon technologies and further opportunities presented by both the Renewable Heat Incentive and the…Green Deal'*[95]

The market testing has indicated that the capital costs of this scheme would be around £15 million and could:

'…tackle fuel poverty in the following ways:

- *Reducing residents' electricity bills as they can use electricity that is being generated by the panels, either free of charge or at a reduced rate*
- *Through re-investment of FIT income in other energy efficiency measures*
- *Creating an investment stream for further renewable energy technologies that in turn may create further investment opportunities i.e. the government's RHI*[96]

The Panel heard that Kirklees Council was using £6 million from its Housing Revenue Account (HRA) to fund solar panels being installed on its housing stock because they:

'…will generate income and then the money can be used later to improve kitchens.'[97]

6.25 **While the Panel welcomes the proposed scheme being developed by Housing, it was keen to find out more detail about the project. They had produced Recommendation 1 (council plans for sustainable energy) to address this concern. The issues they wished to raise included:**

- **If only approximately 13% of the council's housing stock was going to benefit from this programme of solar panels (1,600 out of 12,000), what plans were being developed to install renewables on the other 87% of their stock?**
- **Whether the council was moving swiftly enough with this solar PV project to benefit from the higher rate of the FIT (i.e. by April 2012)?**

The council's property portfolio

6.26 The Panel heard that historically the council's accommodation strategy:

'…has concentrated mainly on carbon reduction although renewables will have a place where appropriate'[98]*.*

However, a draft policy for renewable energy on council buildings is currently being developed and its principal aims will be to:

- *'Strengthen the drive and focus the council has on renewables'*.[99]

[95] ibid

[96] Home Energy Efficiency Investment Options, Housing Management Consultative Committee, 07.03.11 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=2797&T=10

[97]

[98] Angela Dymott, Evidence to the Panel, 16.02.11

- Standardise processes
- Set guidelines on the sorts of technologies to be used
- Strengthen the work which has already done on Environmental Management Systems (EMS)[100]

It was clear from the evidence given to the Panel at the final witness meeting that work was being undertaken to install renewables and improve energy efficiency in council buildings:

'Sustainable designs for the education and corporate capital programmes have…incorporated where appropriate: ground source heat pumps for space heating, solar panels on the roofs to heat hot water, wind turbines, rain water harvesting, passive ventilation and sedum roofs.'[101]

Council officers were also identifying further opportunities and:

'… following investigations – the civic buildings, galleries, museums, schools, housing sites and industrial farmland have been highlighted as having the great potential for renewables.'[102]

6.27 To assist this, the council had carried out the following work:

- A desktop exercise to identify a list of its properties which would be suitable for Solar PV
- A wind mapping exercise
- Modelling two potential Energy Service Companies (ESCos). Firstly, a scheme was being developed for Woodvale Crematoria to look at the potential for electricity to be generated from the heat which is captured during operation. Secondly, for civic buildings including King's House and the Town Halls in the city.[103]

  A heat mapping exercise was planned, to:

  '…identify where the heat areas are within the city and where they may be opportunities to create partnerships and a heating network.[104]

6.28 **While the Panel welcomed the proposals for the council's own portfolio, it was concerned that the draft renewables policy for council buildings had yet to be finalised and published. The Panel felt that it should be a matter of urgency that the council adopt a strategic and consistent policy for installing renewables on its own buildings. This policy should include targets and timetables and form a key part of the overall sustainable energy strategy for the Council (see recommendation 4).**

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[99] Glynnan Barham, Evidence to the Panel, 16.02.11
[100] Glynnan Barham, Evidence to the Panel, 16.02.11
[101] Angela Dymott, Evidence to the Panel, 16.02.11
[102] Glynnan Barham, Evidence to the Panel, 16.02.11
[103] Glynnan Barham, Evidence to the Panel, 16.02.11
[104] ibid

School buildings

6.29 A number of the flagship projects identified by the Head of Planning had been installed on school buildings in the city. According to the Head of Property and Design:

'These projects have played an educational role as children are learning about renewables and actually seeing how they work through installations. Future projects incorporating similar technologies are planned for Somerhill School, Westdene, Goldstone and Queens Park Primary Schools.'

6.30 **Due to the potential for installing renewables, and the number of early installations, on school buildings: the Panel would like to see that the council's sustainable energy policy include a thorough assessment of the possibilities for installing much more renewable energy on school buildings in the city, including retrofitting.**

Private sector housing

6.31 The BEST programme has been used to fund the Brighton & Hove Energy Action Partnership (BHEAP) to deliver home energy efficiency measures to some of the most vulnerable residents in private sector housing. This has included installing 141 solar water heating systems.[105]

In written evidence to the Panel, a resident living in the rented sector spoke of their belief that:

'…the big changes would need to be done by the landlord/property agent and they will only respond to money. Either grants or tax incentives.'[106]

A witness from DECC advised the Panel on incentivising landlords:

*'It is about **communicating** the financial opportunities, e.g. from FITS, through **engagement** and **information sharing**.'*[107]

The Panel heard that Kirklees Council felt that their role in relation to the private sector was:

'…to act as the independent checker of what is going on and getting a good price because there are a number of companies offering bad prices and systems.'[108]

Owner occupied housing

6.32 An owner occupier provided written evidence to the Panel on why they had installed solar thermal, due to being:

[105] Cited in Home Energy Efficiency Investment Options, Housing Management Consultative Committee, 07.03.11 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=2797&T=10

[106] Written evidence to the Panel, see Volume 2

[107] My emphasis, Patrick Allcorn, Evidence to the Panel, 06.12.10

[108] Phil Webber, Evidence to the Panel, 07.02.11

'Very concerned by overuse of resources to heat space/water. And the thought of virtually free hot water was too much to turn down … The system works beautifully'[109].

However a resident who is currently going through the process of trying to get solar hot water panels installed in the city informed the Panel that:

'…it would be useful if there was one person at the council who could guide me through all the various planning, building control and conservation area applications I have to make. At the moment I am having to deal separately with those three departments and the solar contractor and the gas engineer…and I'm a bit worried that I'm going to miss something [and]…getting slightly different info from different people with overlapping responsibilities'.[110]

Commercial projects

6.33 An example of using industrial space to install renewables was given by the council, which is setting up:

'…a large pilot project across the road at the Norton Road car park. This would incorporate large scale PV. This project would also encourage training and apprenticeships as well.'[111]

The Head of Planning told the Panel that:

'The AmEx building was a good example with regard to carbon reduction and finding imaginative solutions. Investment for a local school's boiler was secured through a Section 106 agreement where the building's specifications didn't quite achieve the carbon reduction standards required in the planning process.'[112]

The Head of Planning felt that discussions with developers could be *'tough'* [113]and it was important to have:

'…the best possible data…available during the negotiations and using broad figures is not enough to persuade developers to meet our targets. Clear statistics need to be gathered early enough to prove genuine energy savings…It shows that good monitoring is crucial and we would be in a better negotiating position if good data was readily available at the outset.'[114]

The Panel believes that the kind of experience and expertise described above should be dedicated and located in the specialist agency, or team, proposed in Recommendation 5.

[109] Written evidence to the Panel, see Volume 2
[110] Written evidence to the Panel, see Volume 2
[111] Glynnan Barham & Angela Dymott, Evidence to the Panel, 16.02.11
[112] Martin Randall, Evidence to the Panel, 16.02.11
[113] ibid
[114] Martin Randall, Evidence to the Panel, 06.12.10

Retrofitting

6.34 A strategy for sustainable energy for the city needs to consider how to increase the level of installations in both new developments and in existing properties. Patrick Allcorn from DECC emphasised that:

'A broad strategy was needed, instead of focussing on new developments, because the existing stock (80%) is not going to all change by 2020.'[115]

The Head of Planning told the Panel:

'Retrofitting has been a big challenge. Planning often needs to find imaginative solutions and a balance must be struck between carbon standards and preserving listed buildings.'[116]

Brighton & Hove Eco Open Houses

6.35 Eco Open Houses is an event run by Brighton & Hove City Council, Brighton Permaculture Trust and the Low Carbon Trust which aims to inspire the uptake of energy efficiency and renewables by opening up houses that demonstrate best practice in the area. It has run for three consecutive years since 2008 (for further details look at www.ecoopenhouses.org).

Thousands of visitors have benefited from Brighton & Hove Eco Open Houses events. The most recent event in 2010 cost £20,000 and attracted almost 1000 visitors. Monitoring showed that at the event visitors pledged to take actions in their own home which would result in:

- A total of 1,404 tonnes CO_2 emissions reductions in their homes (4.05 tCO_2/person)
- These actions could result in a spend of £1.1 million in the home energy improvements sector (£3,175 per visitor)
- This means that for every £1 invested in the event, there is a potential to influence £60 spend from visitors
- In terms of pledges relating to renewables: £238,500 was for 53 solar hot water systems; £420,000 was for 42 PV installations; £3,900 was for 64 people to switch to a green energy tariff. (p.45)
- Evaluation of feedback revealed that: 98% of visitors learned something from the event; 85% said the event had influenced them to take action in their home; of those that said they wished to take further action, 31% wanted to know more about 'local suppliers', 'contractors' and 'technical data' and 'more information'. [117]

Brighton & Hove Eco Open Houses would like contribute to harnessing this potential in future by continuing to run events, and improving delivery and engagement. However, there is currently no funding to support the 2011 event. The Eco Open Houses Team is seeking resources and funding to run

[115] Patrick Allcorn, Evidence to the Panel, 06.12.10
[116] Martin Randall, Evidence to the Panel, 06.12.10
[117] Eco Open Houses Evaluation report 2010, http://www.ecoopenhouses.org/media/Eco%20Open%20Houses%202010%20Report.pdf

the 2011 event. Past events have relied on regional, private sector or council funding support. None of these sources appear to be available this year.

Community Energy

6.36 The Panel also heard from two community based organisations that were working to develop renewable energy locally.

OVESCo

6.37 The Ouse Valley Energy Services Co-op (OVESCo) was set up by Transition Town Lewes in 2007 and became an Industrial & Provident Society (IPS) for community benefit in 2010. The services they offer include:

- Running a renewable energy grant scheme
- Holding eco open homes
- Setting up renewable energy installation projects - for example currently working on a project to install 550 solar PV panels on an industrial estate with a total worth of £360,000[118]

Their key focus is on solar PV and their main sources of funding include:

- FIT
- Selling energy
- Renewable Heat Incentive (on its introduction)

The aim of OVESCo is to ensure:

'…that the community gained the return rather than the big banks. A percentage goes back into other projects and enables them to continue to provide energy advice. They wanted to build up a portfolio of projects and become financially sound as the grants come to an end.'[119]

One of the reasons OVESCo had become an IPS was to enable them to issue shares. Their unique selling point is the

'…*investment from the community in RE. This will come either because they believe that RE is a good idea or they are attracted by the rate of return. This will include people who cannot personally have PV installed.'*[120]

OVESCo do not anticipate any problems in attracting sufficient community investors, because:

'They will be offering a 4% rate of return and tax incentives, which is so much better than banks.'[121]

[118] Chris Rowlands, Evidence to the Panel, 18.01.11, http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3174&T=1 ibid
[119] Chris Rowlands, Evidence to the Panel,18.01.11, http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3174&T=1
[120] ibid
[121] ibid

Brighton Energy Co-op

6.38 The Panel heard that this co-op is based in the city and describe themselves as a *'…community funded scheme for renewable energy'*. [122]

Like OVESCo, they had found a sufficient level of demand:

'We have secured 350 members without significant marketing…People are interested in the rate of return offered'.[123]

The organisation felt that:

'…it would be easier if the Co-op had an installation under its belt. However it is talking to the widest possible group of people to increase its credibility.'[124]

Opportunities and barriers to installing renewable energy in the city

6.39 This section of the report now maps out the opportunities and barriers to installing renewables in Brighton & Hove.

Opportunities

6.40 The Panel heard evidence that increasing the renewables sector could bring the following benefits to the city:

- Addressing fuel poverty and building resilience to fuel price increases
- Creating employment opportunities
- Income generation opportunities from incentives such as the Feed in Tariff
- Ability to bid for the growing number of funding to grow this sector
- New investment funds looking for local and community opportunities
- Enhancing our reputation as sustainable city
- Engaging and educating residents

Some of these opportunities are described in greater detail below.

Addressing fuel poverty

6.41 The Lead Commissioner for Housing told the Panel:

'The biggest factor contributing to inequality in the most deprived areas has been energy costs…This is particularly important when '70% of people living in our houses are suffering from poverty or one sort or another and/or are on benefits'.[125]

The Panel heard that Kirklees Council:

'…had focused on the poorest sectors of the community. A distinction had been made between those who could, and would, pay for renewable energy

[122] Will Cottrell, Evidence to the Panel, 06.12.10 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3140&T=1
[123] ibid
[124] ibid
[125] Jugal Sharma, Evidence to the Panel, 16.02.11

and those in poverty. To this end the council was going to use £6m from the Housing Revenue Account (HRA) to fund further renewable energy model.'[126]

Creating employment opportunities

6.42 A witness from Kirklees Council told the Panel that the lack of qualified installers presented:

'…an opportunity to combat the recession. There were big opportunities for local authorities to insist on local suppliers, local workforce and training opportunities. If one spends £1 on insulation, one got a lot more CO_2 savings than from renewable energy – however renewables brought good employment opportunities.'[127]

Future proofing against increasing energy prices

6.43 As energy prices continue to rise, increasing the level of renewables can be an important way of protection against future price increases. The council's Energy and Water Manager told the Panel that:

'The potential for reducing the council's energy bill using the sites highlighted for renewables, still stands at approximately 5%. We have been told to expect utility costs increases of up to 10% or even higher which will provide a significant focus with regard to the application of renewables.'[128]

Financial opportunities for the Council

6.44 The Panel heard that these financial benefits could include:

- Investing to earn – enabling the council to maximise the value of public assets
- Taking advantage of the ability of local authorities to sell their own electricity e.g. Bristol City Council is planning to invest up to £9m in installing two wind turbines to meet council commitments and hopes to generate £1m per annum in revenue.[129]
- Reducing energy bills and generating revenue –e.g. the Carbon Reduction Commitment which is being introduced as a mandatory scheme to improve efficiency and cut emissions in large public sector organisations[130]
- Showing leadership
- Generating electricity and using renewable heat shields the council from exposure to energy prices rises and volatility. Even though the council buys its electricity from a green supplier, the cost of that electricity is linked to the general electricity wholesale market – so is exposed to general price volatility.
- Facilitating the acquisition of skills and training (an issue raised in the Environmental Industries Scrutiny Inquiry)

[126] Phil Webber, Evidence to the Panel, 16.02.11
[127] Phil Webber, Evidence to the Panel, 07.02.11
[128] Glynnan Barham, Evidence to the Panel, 16.02.11
[129] Local government association magazine, 9th October 2010, http://www.lga.gov.uk/lga/core/page.do?pageId=14159210
[130] http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx#more_about_CRC

6.45 Jae Mather told the Panel that *'…if you do a project right it does not cost anything and makes money'.*[131]

He also felt that the *'…business case was always the best way to kick-start RE projects'*[132]

Income generation for residents

6.46 Examples of the income generated using the FIT scheme were given in the written evidence submitted to the Panel. Two of these examples are listed below and then a detailed case study is provided on the following page:

Example 1

'[under a pilot scheme from British Gas offering an interest free loan to install solar PV]… I pay back £33 per month for 25 years and make hopefully ***between £70 and £80 per month'***[133]

Example 2

*'…**my return in the first year will total £629**. This represents a return on the £19,500 invested of 3.2%. I am content with this, as it is a real return and is guaranteed ... for 25 years.'*[134]

[131] Jae Mather, Evidence to the Panel, 18.01.11
[132] ibid
[133] My emphasis, Written evidence to the Panel, see Volume 2
[134] ibid

Case Study of Domestic PV system installed July 2010 in Brighton & Hove
Summary of Financial benefits– FEED In TARIFF (FIT) & savings

We are a family of 4 (2 teenagers) in a semi detached house. We monitor our energy use and try to keep it low (all our lighting is low energy, including LEDs, all our appliances are 'A' or 'A+' rated). We use an average 4.9kWh a day in this house (1600-1700kWh/year).In the first 3 months our PV system produced on average 4.5kWh/day.

1.4 kW system.
(Estimated to generate 1,190 kW peak annually)
8 x Sharp 175W Photovoltaic panels total 12m2.
System cost: £9,555.
Installed as part of the trial 'Pay as you Save' scheme.
Scheme run by British Gas, installers were **********
Interest free loan at £31.85/month for 25 years.

Finance

Feed in Tariff
Every kWh electricity generated earns 41.3p
Every kWh fed back to the grid 3p

Therefore
1030kWh generated x 41.3p = £425.39
If half of the 1030kWh is not used in the house is fed into the grid then:
515kWh x 3p= £15.45

Total FIT income = £440.84

Electricity use
If we use half of what is produced, we make savings from not buying 515kWh from the grid. We currently pay10.609p per kWH electricity from our energy supplier
This means savings of 515kWh x 10.609p = 5464p

Saved £54.64

Total benefit= £495.47

Loan payments
Monthly payment of 31.85 x 12months **Less payments of £382.20**

TOTAL ESTIMATED ANNUAL FINANCIAL BENEFIT= £113.27

According to the calculations above, this system will have paid for itself in about 20 years, after which time we'd be into profit of about £500 a year. However, if the system performs better than it has through these snowy months (which it should do), or if the price of electricity goes up, the payback time will reduce.

Potential barriers

6.47 One of the TOR of this Panel was to *'…identify the barriers to local energy generation.'*[135] This section identifies the key barriers highlighted in the evidence provided to the Panel.

Installing renewables in conservation areas

6.48 A perceived barrier to increasing the installation of renewables in the city is the significant amount of properties located in the 34 conservation areas in the city.

However, the council's Design and Conservation Manager told the Panel that:

'…in respect to retrofitting within conservation areas, residents now had much greater freedom with regard to installing solar panels without needing planning permission.'[136]

He also highlighted the technological advances which could assist in the installation of renewables in conservation areas:

'…the industry is continually developing alternatives for listed buildings such as very slim double glazing units that can be accommodated within existing traditional window frames and solar slates, that do not spoil the character or appearance of the building. However, these alternatives are more expensive'.[137]

In his experience they received *'few enquiries'* about solar panels and *'even fewer about wind turbines'*.[138] Because more enquiries were received about loft conversions, he suggested that:

'The expertise involved in loft conversions and roof alterations may lead to an opportunity to be coupled with solar installations'.[139]

A recent mapping exercise had identified that many of the areas with sufficient wind were often in conservation areas or areas where planning permission may not be able to be obtained.[140]

However many of the city's listed buildings were homes in multiple occupation (HMOs) where there were *'…technical and social issues surrounding the delivery of renewables'*.[141]

[135] Scoping report of the Panel
[136] Roger Dowty, Evidence to the Panel, 16.02.11
[137] Roger Dowty, Evidence to the Panel, 16.02.11
[138] Roger Dowty, Evidence to the Panel, 16.02.11
[139] ibid
[140] Glynnan Barham, Evidence to the Panel, 16.02.11
[141] Roger Dowty, Evidence to the Panel, 16.02.11

Upfront costs

6.49 In relation to installing renewables on council owned buildings, the barriers were seen to be *'largely financial'*[142] although these were seen to be being *'alleviated'*[143] by the FIT and the possible introduction of the RHI.

Kirklees Council had found that *'… the community was interested in renewable energy if the price was right*.[144]

Air quality

6.50 The council's Air Quality Advisor told the Panel that:

'The general consensus was that some sites in the city were less suitable for biomass or wood burning boilers, because they would contribute to lowering air quality… [therefore] Biomass could be a possible source of renewable energy on the outskirts of Brighton, to be reviewed on a case by case basis.'[145]

Monitoring of schemes

6.51 The Panel heard evidence from an individual who had installed both a wind turbine and solar panels in the city that:

'Monitoring of schemes had been a big issue with BHCC, leading to him to offer to do it himself. For example noise had been a big issue for Planning, and he did not feel that this monitoring was done by BHCC.[146]*'*

However he had felt *that '…monitoring had been done well with other projects he had initiated.'*[147]

Difficulties in dealing with council departments

6.52 The Panel heard evidence from a developer, trying to establish a Community Energy Centre and a co-op for both PV and a wind turbine, who found the process of dealing with the council *'…extremely frustrating'*[148]. As a result he felt that this council did not have a *'let's see how it works attitude'*[149], unlike Kirklees Council.

This evidence suggests that it could be useful for the council to consider how to make it easier for developers and other potential installers of renewable energy to approach the council and be kept informed about the progress of any proposed project.

Wind turbine and noise

6.53 This was not perceived as a wide spread problem in the city because:

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[142] Glynnan Barham, Evidence to the Panel, 16.02.11
[143] ibid
[144] Phil Webber, Evidence to the Panel, 07.02.11
[145] Sam Rouse, Evidence to the Panel, 16.02.11
[146] Daren Howarth, Evidence to the Panel, 07.02.11
[147] ibid
[148] Ross Gilbert, Evidence to the Panel, 07.02.11
[149] ibid

'Noise from wind turbines is improving as technology advances. We don't get many complaints about noise from turbines…[as]… most applications for turbines tend to be on industrial sites or off shore.'[150]

Conclusion

6.54 The comparison of barriers and opportunities show that benefits that come from growing this sector far outweigh the difficulties associated with such projects. Evidence to the Panel highlighted that some of the barriers to the growth of renewables were being overcome - for example by new funding opportunities and better technologies. **The Panel expects that the comprehensive citywide policy will plan for, and measure progress, in relation to the full range of opportunities and barriers in this sector.**

Capacity in the city

6.55 This section of the report considers whether any capacity issues may arise from a growth in this sector in the city.

What are the capacity issues?

6.56 The recent consultation on Microgeneration Strategy identified 3 key national capacity issues:

- Installation and maintenance skills and capacity
- Ensuring good design and commissioning of renewables installations
- The supply chain[151]

The Strategy emphasised that:

'Any growth … will require the support of a skilled workforce. This applies across the building and products sector, not simply to installation engineers and technicians….Recognised, effective accessible training needs to be developed, accredited and publicised to ensure market confidence.'[152]

6.57 A recent survey of those working in environmental industries in Sussex found that:

'82% of respondents said that they required specialist skills for their business. Of these, 57% said that they had had difficulties recruiting people with these types of skills. The main reasons given for the difficulties were low number of applicants with required skills (75%).'[153]

<u>Certified installers</u>

6.58 Kirklees Council had found that *'…there were big capacity issues due to insufficient installers*.'[154] This had also been true when it came to insulating homes:

[150] Sam Rouse, Evidence to the Panel, 16.02.11
[151] DECC website http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx
[152] DECC website http://www.decc.gov.uk/en/content/cms/consultations/microgen_strat/microgen_strat.aspx
[153] Mapping the Environmental Industries in Sussex, Summary Findings, 2010
[154] Phil Webber, Evidence to the Panel, 07.02.11

'To deliver their programme required them to train and pull in crews from across the UK to deliver the volume they needed, due to the high take up rate. For this kind of volume they needed 10,000s or 100,000 of installers.'[155]

Sites

6.59 The Brighton Energy Co-op told the Panel that:

'In their experience, the bottleneck is in securing sites, not installing the technology. For example, if BHCCC took a collective decision on roof spaces this would release a large number of sites. One could set a target of 10% in 5 years and this could raise £1m [a year].'[156]

Is the city currently realising its renewable energy potential?

6.60 The purpose of this section of the report is to assess whether the city is currently doing its best to realise the potential of this sector.

Firstly it looks at the recommendations made by a previous scrutiny panel which was set up to look at Environmental Industries in the city.

Environmental Industries Scrutiny Panel

6.61 This Scrutiny Panel was set up in 2009 by the Culture, Tourism & Enterprise Overview and Scrutiny Committee (CTEOSC) to consider the growth potential of environmental industries, including renewable energy. It concluded that

'…this sector provides an important enterprise and employment opportunity for the city…[which has] many of the key attributes needed to attract environmental industries.'[157]

This Inquiry also stressed that:

'The council recognises that it must seize the opportunity to become involved in the development of the sector, in order to influence it from the centre rather than the periphery…other local authorities are preparing to maximise the chances offered by this sector and are developing the infrastructure to service these industries. ***So if our city fails to grasp this opportunity, then other locations will benefit****.*[158]

The Panel identified the outcomes it wished to achieve from its recommendations, namely:

- Making environmental industries a council priority

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[155] ibid

[156] Will Cottrell, Evidence to the Panel, 06.12.10 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3140&T=1

[157] Environmental Industries Scrutiny Panel Final Report and Recommendations http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf

[158] Bold my emphasis, Environmental Industries Inquiry – Capturing the potential and economic benefits for Brighton & Hove, October 2009, http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf

- The council leading by example to encourage this sector
- Working with our partners to maximise the potential of these industries
- Working with the city's universities
- Establishing an environmental industries network
- Growing the sector to create local jobs and training
- Providing funding advice for these industries
- Communicating the importance of this sector
- Monitoring the progress of this sector.

The Panel developed 7 main recommendations and 14 supporting ones, which were accepted by the Executive on 26th January 2010. These recommendations included:

- Recognising the importance of this sector in key council strategies
- Appointing a lead council officer for this sector
- Including Environmental Industries in future funding bids for apprenticeships
- Using the Council's procurement policy to promote the growth of environmental industries
- Supporting social enterprises working in this sector
- Working with partners to raise the profile of the sector
- Exploring how more affordable work and office space could be made available in the city
- The need for regional networks and partnership working

CTEOSC received an annual update on the progress of these recommendations on 25th November 2010.

Uptake of renewable energy

6.62 Howard Johns of Southern Solar told the Panel that:

'He was surprised by how little uptake there had been of this technology in the town, compared to Woking (who had installed 10% of all PV to date) and Kirklees. He attributed this to the visionary leadership of these councillors.'[159]

Planning to realise our potential

6.63 Next, this report will look at the plans and policies which have been developed to encourage the growth of renewable energy in the city. Howard Johns of Southern Solar told the Panel that:

*'…in his experience there had been a lot of planning in the city, but **not masses of action**'.*[160]

Citywide policy

6.64 While there is no specific city-wide policy for sustainable energy, the current policy and targets for this sector stem from the Brighton & Hove Sustainable

[159] Howard John, Evidence to the Panel, 07.02.11

[160] Bold my emphasis, Howard John, Evidence to the Panel, 07.02.11

Community Strategy. This partnership document sets out a vision for the city: one of its key priority themes is:

'Living within environmental limits and enhancing the environment'.[161]

To achieve this, the 2010 version of the strategy includes this comprehensive set of actions relating to renewable energy:

- *'Develop consolidated action around the expansion of sustainable and renewable energy generation. Produce a ('big users') heat map of the city to promote district heating scheme plans, using new developments as a catalyst.*
- *Establish an energy service company (or companies) to support local sustainable and affordable energy delivery.*
- *Install, and support the widespread installation of new energy generating technologies including supporting plans for a large offshore wind farm off the coast of Sussex, and undertaking feasibility studies for marine (tidal, wave) and wind energy for the city.*
- *Identify sites for larger scale sustainable energy facilities through development policies and the Site Allocations Development Plan Document*
- *Work with developers to ensure best practice in energy efficiency, water efficiency, reduced waste production and the use of renewable energy. Promote and require sustainable practices such as:*
  • reducing carbon emissions
  • implementation of passive design for low energy use
  • incorporating renewable energy and low carbon energy technologies
- *Encourage renewable energy use in existing buildings and operations across all sectors, including business, retail and householders.*
- *Work with Carbon Trust to examine energy efficiency in sheltered housing schemes and council housing blocks to identify energy conservation measures and opportunities to move to combined heat and power or renewable energy.*[162]

6.65 **The Panel felt that the weight of evidence about what an opportunity this sector could provide for the city, meant that a specific city-wide policy is needed for sustainable energy (see recommendation 3)**

How is BHCC planning for renewable energy?

6.66 Since 2008 it has been a corporate priority of this council to:

'…protect the environment while growing the economy'.[163]

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[161] Brighton & Hove Strategic Partnership, Creating the City of Opportunities – A Sustainable Community Strategy for Brighton & Hove, 2010
http://www.bandhsp.co.uk/downloads/bandhsp/B_HSP_Sustainable_Community_Strategy.pdf

[162] Brighton & Hove Strategic Partnership, Creating the City of Opportunities – A Sustainable Community Strategy for Brighton & Hove, 2010
http://www.bandhsp.co.uk/downloads/bandhsp/B_HSP_Sustainable_Community_Strategy.pdf

[163] http://www.brighton-hove.gov.uk/downloads/bhcc/performance_team/Corporate_Plan_2008_V310708.pdf

One of the achievements that will be measured is whether:

'…more wind, solar and other sustainable energy is installed locally'.[164]

A number of the council's key policies have identified actions to prioritise the growth of renewable energy. These include:

a. Carbon Management Programme Strategy and Implementation Plan

6.67 The strategy was developed in 2007 for the council and its own buildings. The actions included:

'An investigation into the potential for implementing renewable energy sources for council buildings … An initial target of 5% of the council's electricity consumption from its own renewable sources by 2012.'[165]

Council officers are currently working on developing a draft corporate renewables policy to ensure a consistent approach across the council for its land and buildings.

b. Climate Change Action Plan (CCAP)

6.68 In 2006 a Climate Change Action Plan for Brighton & Hove was published to:

'…provide a framework for actions committing us to addressing climate change within all the council's key services'.[166]

This Plan is now being updated to:

- Set out a programme of actions to build a systematic and consistent approach to reducing greenhouse gas emissions and adapting to climate change in Brighton & Hove, informed by current legal and policy requirements, the Sustainable Community Strategy, and aligned with relevant citywide plans and recent Scrutiny Panel outcomes (in particular Adaptation and renewable energy)
- Refocus this as a 'partnership' document, although it is recognised that the council will have a key role
- Include an climate change adaptation section informed by the recent scrutiny panel into this issue and work being done on the Local Climate Impact Profile (LCLIP)

c. Core Strategy

6.69 The purpose of the Core Strategy is to:

'…provide the overall strategic and spatial vision for the future of Brighton & Hove through to 2026'.[167]

The aims of the Strategy include:

[164] http://www.brighton-hove.gov.uk/downloads/bhcc/performance_team/Corporate_Plan_2008_V310708.pdf
[165] Cited in written evidence to the Panel from Thurstan Crockett for the Panel meeting on 16.02.11
[166] 2006 Climate Change Action Plan
[167] Core Strategy proposed submission http://www.brighton-hove.gov.uk/downloads/bhcc/ldf/REg_27Core_Strategy_Proposed_Submission_February_2010v2.pdf

- By 2026 the city will support a thriving environmental technology sector to support the development of renewable and low-carbon energy, recycling initiatives and reduced resource consumption.
- Work towards becoming a zero carbon city with lower carbon emissions supported by sustainable and renewable decentralised sources of energy and ensure the city is resilient to the predicted likely impacts of climate change.[168]

d. Sustainable Building Supplementary Planning Document (SPD)

6.70 The SPD was adopted in 2008 to:

'…make sure all developments in Brighton & Hove achieve the highest possible standards of sustainable building design.'[169]

The guidance asks proposed developments to demonstrate a range of requirements including incorporating, or facilitating, the use of RE resources.

e. Environmental Management System (EMS)

6.71 The council has developed and implemented an EMS which has been accredited to ISO 14001. This has created '*a framework for managing and reducing the organisation's environmental impacts*'[170] and currently covers key buildings such as the Brighton Centre and Hove Town Hall.

f. Local Development Framework (LDF)

6.72 According to the LDF, a target for the city is to:

'Maximise the number of developments using alternative/renewable sources of energy'[171]

The Annual Monitoring Report carried out by Planning for 2009/10:

'…reported that '100% of major developments approved in 2009/10 either provided a Sustainability Statement or Sustainability Checklist with regard to alternative/ renewable sources of energy or had sustainability measures conditioned'.[172]

g. Draft Corporate Renewable Energy Policy

6.73 This policy is currently being developed by the council's Energy and Water Manager, who told the Panel that although this:

'…policy does have a primary focus on council property… it understands the need to look wider than the council to offer support and experience for other sections within the city.'[173]

[168] ibid
[169] http://www.brighton-hove.gov.uk/downloads/bhcc/ldf/adopted_Sustainable_Building_Design_SPD_8.pdf
[170]
[171] Local Development Framework
[172] BHCC, AMR, http://www.brighton-hove.gov.uk/downloads/bhcc/ldf/AMR_2009-10.pdf
[173] Glynnan Barham, Written evidence to the Panel meeting on 16.02.11

The sustainable energy policy for the council proposed in Recommendation 4 would have a wider remit than focussing on the council's own estate, as it would set out how the authority would work towards the citywide sustainable energy programme.

Council's commitment to energy efficiency and lowering emissions

6.74 Until now the focus of the council has been on demand reduction, or energy efficiency rather than setting actions and targets for renewable energy. For example, the Leader of the Council signed up to the 10:10 campaign as one of her priorities for 2010, which aims for a 10% reduction in emissions in 2010/11 from a 2009/10 baseline.

Why the council needs a single policy on sustainable energy

6.75 The Panel heard from Thurstan Crockett, the Head of Sustainability, that the council had agreed an Environmental Policy setting out the high level environmental aims of the organisation:

'The policy specifically committed to the installation of renewable energy systems where they were appropriate and to procuring energy from renewable sources. It was a high level document which covers a wide range of environmental aims and it was not specific about how these aims will be achieved. In order to ensure that its aims were delivered in a co-ordinated way, ***further policy guidance was required.'***[174]

6.76 **During the process of carrying out this Scrutiny Panel it proved a challenge to obtain a full picture of what the council was doing to promote the growth of renewables in the city, including on its own property.**

The Panel welcomed the evidence it heard on the projects which were being developed e.g. to install Solar PV on council homes. However, the Panel believes that there is a need for better co-ordination between the officers working on these different projects. This could be overseen by the Strategic Director, Place. In addition, there needs to be a central location for information on the developing plans and projects in this sector (this could be held by the team suggested in recommendation 5).

Employment plans for the city

6.77 A witness from DECC told the Panel that:

'…it was important to up skill the existing relevant workforce in the city, e.g. plumbers, and ensure they are trained and accredited to work with renewables'.[175]

[174] Cited in Thurstan Crockett, Evidence to the Panel, 16.02.11
[175] Patrick Allcorn, Evidence to the Panel, 06.12.10

How can Brighton & Hove City Council help this sector?

What role could BHCC play?

6.78 The Strategic Director, Place, described what he felt to be key roles that BHCC could play to enable the growth of renewables:

- **Supporter**- both in purchasing and backing schemes (for example BHCC purchasing renewable electricity)
- **Facilitator** – for example the support offered to E.ON in developing the Rampion project
- **Developer**[176]

6.79 The Panel heard a significant amount of further evidence on the roles a local authority can take on to assist the growth of renewable energy, which included:

- Enabler
- Commissioner of projects
- Community leader

This section of the report will now consider these roles in greater detail.

Supporter

6.80 The Head of Property and Design told the Panel that:

'The council began to purchase renewable energy 5-6 years ago and was the first … to do so. At this time it cost approximately 10% more.'[177]

Facilitator

6.81 A witness from Kirklees Council advised that BHCC needed to

'…contact people and persuade them about the range of opportunities which could be out there for RE. People needed to be persuaded about the new technologies, which was more difficult if the technology was new or more disruptive to the community. One needed to sell the payback period of RE technologies.'[178]

This needs to be backed up with reliable surveys of homes to help them identify which renewables and energy efficiency work would be most appropriate for them.

A witness from DECC suggested that the council could facilitate the developments of projects, when:

'…if it does not want to invest in a project, the authority could still help e.g. by assisting in forward planning (indicating where a scheme could go ahead).'[179]

[176] Geoff Raw, Evidence to the Panel, 06.12.10
[177] Angela Dymott, Evidence to the Panel, 16.02.11
[178] Phil Webber, Evidence to the Panel, 07.02.11
[179] Patrick Allcorn, Evidence to the Panel, 06.12.10

Developer

6.82 The Panel heard that the council could take on the role of developer as:

'Strategic Directors were carrying out a review of major projects and this would include an assessment of the potential for renewable energy as part of this review'.[180]

Enabler

6.83 Will Cottrell of the Brighton Energy Co-op felt that a key part of the enabling role which the council could take on would be to locate and secure office space.

'For example, a developer of renewables visiting potential sites with a view to entering a 25 year lease, could find it very useful to have some official sanction (e.g. support from the council) to assist in their negotiations.'[181]

The Lead Councillor for Sustainability told the Panel that:

'The key issue to address is office accommodation to enable companies to expand.'[182]

The Energy and Water Manager told the Panel that:

'People came forward requesting that the council donate sites. We have looked at these on a case by basis, but we would really need a suitable business case.'[183]

The Panel felt that donating or releasing sites could be a useful way of enabling community energy organisations, co-ops and social enterprises to gain project experience and build up their credibility.

Commissioner of projects

6.84 The Head of Housing told the Panel:

'We have had an energy partner (Climate) who has very successfully administrated the energy efficiency measures on our properties for a while. 18 months ago we asked them to conduct a study on Council estates, to assess where we could generate additional income to continue the level of energy measures that we currently had.'

This work has been used to form the project currently being developed to install solar PV on council homes in the city.

Community leader

6.85 Howard Johns of Southern Solar emphasised the potential impact if:

[180] Geoff Raw, Evidence to the Panel, 06.12.10
[181] Will Cottrell, Evidence to the Panel, 06.12.11
[182] Cllr Ayas Fallon-Khan, Evidence to the Panel, 06.12.10
[183] Glynnan Barham, Evidence to the Panel, 16.02.11

'The council could lead schemes which would increase the credibility of the sector in the city. If they took measures on their stock like Kirklees, this would be well received by the community and increase the amount of microgeneration in the city.'[184]

Kirklees Council had found that:

'The relationship with the community is very important. The council had to operate in a commercial way e.g. using billboards, appearing on the radio to promote issues/schemes and put up information in libraries. They had done a lot of work to brand this issue and address indifference.'[185]

Planning forwards

6.86 Evidence from Kirklees Council emphasised the importance of forward planning, and capacity building, to prepare for new schemes, such as the Green Deal.[186]

Skills of council officers

6.87 The diversity of skills needed by council officers to work in this field was emphasised by a number of witness. For example, Sayed Ahmed told the Panel that:

'There is a need for local authorities to become nimble in this field and look at the skills they need, including the ability to work with developers.'[187]

When asked how a council could prepare for the future, Kirklees Council's advice was that:

'With the Green New Deal, councils would be needed in the role of 'honest broker'. While third parties could be quicker, local authorities had many of the required skills in-house, e.g. their legal department.'[188]

The representative from Kirklees Council also emphasised the high level of officer resources they had needed to implement such a comprehensive programme.

'There had been a high level of need for capacity and skills … for example six people had been working …full time dealing with renewable energy related issues such as the 150 responses they had received to a tendering exercise.'[189]

However a representative from the Carbon Free Group, who specialised in low carbon solutions, felt that

[184] Howard John, Evidence to the Panel, 07.02.11
[185] Phil Webber, Evidence to the Panel, 07.02.11
[186] Phil Webber, Evidence to the Panel
[187] Sayed Ahmed, Evidence to the Panel, 18.01.11
[188] Phil Webber, Evidence to the Panel, 07.02.11
[189] ibid

'This knowledge usually has to be bought in, due to the ever changing knowledge needed. If someone is good they will leave and go and work in a private organisation ….However I do know that you have some very skilled people in Brighton & Hove.'[190]

The evidence from the Panel suggested that there needed to be systematic learning processes in place so that officers, as well as stakeholders, could learn from project to project. This would make subsequent projects easier to approve, support and fund over time. The aim would be to make renewable energy a standard aspect of the development process in the city.

Key council services

6.88 This next section will briefly describe how some of the council services work to increase the level of renewables in the city.

Planning

6.89 The Head of Planning told the Panel that:

'Town Planning's statutory purpose is to deliver 'sustainable development'. There is a supportive national planning framework and a comprehensive set of local policies.'[191]

To achieve this, the council has developed a range of planning policies and their approach focuses on *'zero carbon rather than aiming for a specific renewable energy target'* to enable them to *'use more imaginative solutions.'*[192]

The Planning Service felt that:

'A key message was that early stage discussions, i.e. pre-application, needs to take place around the development process, so that … renewables are not treated as 'bolt-ons' afterwards'[193]*.*

Sustainability

6.90 The Sustainability Team provides specialist consultancy services, working across the council to promote a consistent and practical approach to reducing environmental impacts, and working together with city partners to encourage good practice and wider sustainability benefits.

Key areas of work include:

- Policy: Ensuring sustainability is effectively built in to decision-making, including strategic planning, policy development and implementation; performance monitoring and all stages of commissioning;
- Performance: Improving environmental and sustainability performance across the council using an Environmental Management System approach (a structured framework for managing the council's impacts); building

[190] Jae Mather, Evidence to the Panel, 18.01.11
[191] Martin Randall, Evidence to the Panel, 16.02.11
[192] ibid
[193] Martin Randall, Evidence to the Panel, 16.02.11

awareness and understanding of risks, benefits and opportunities; informing prioritised programmes of work to address these;

- Partnership: Supporting the development and implementation of the Brighton & Hove Sustainable Community Strategy, and its workstreams, including climate change mitigation and adaptation planning.

Property and Design

6.91 The Panel heard that this service:

'…actively promotes sustainable solutions through our developing sustainable design policy. This is particularly relevant with the projects carried out by Property's Architectural and Education Capital Project teams as they work towards designing to BREEAM 'excellent', where practical, or 'very good' on larger primary capital schemes for schools and other corporate capital projects.'[194]

The Energy and Water Manager told the Panel that one of his key tasks has been:

'…the setting up of the SERENe Group, which has representation from all Energy Managers from Kent County Council to Hampshire County Council, including all unitary authorities at Brighton, Portsmouth and Southampton. Brighton leads this group and chairs the meetings.'[195]

As already noted, the Energy and Water Manager is currently developing the council's Draft Corporate Renewable Energy Policy.

Housing

The council's Housing department has taken the lead in commissioning an assessment of the options for installing solar PV panels on its housing stock. These options were noted by Cabinet on 17th March 2011, a project which has already been described in this report.

[194] Written evidence to the Panel provided by Angela Dymott and Glynnan Barham for the meeting on 16.02.11
[195] ibid

7. Learning from other local authorities

7.1 The Panel heard evidence from two local authorities who had undertaken a significant amount of work to enable the growth of renewable energy and received a briefing on the good practices of four other councils:

- Kirklees
- Woking
- Southampton
- Birmingham
- Worcestershire
- Suffolk County Council

These were chosen because they have pioneered new and different approaches or found innovative ways to fund their projects

Kirklees

7.2 The Panel heard that the priority for Kirklees Council had initially been to:

'…improve housing conditions, including insulation, and reduce C0$_2$…[but] after undertaking these energy efficiency works, the council saw their role as helping to increase the % of renewable energy in the UK.'[196]

Their comprehensive set of programmes to improve energy efficiency and increase renewables included:

- Warmzone – which had carried out 65,000 free home insulation measures, including a programme to improve boilers and a boiler scrappage scheme
- Obtaining a small grant from DECC to install 50 solar PV systems on terraced properties. *'They would be using the…FIT income to establish and maintain a Community Fund. This work was also seen as a lever into getting the community to increase their level of recycling.*[197]
- Energy advice
- Planning to use £6m to install solar on 5,000 local authority homes *'…and then the income from FIT would pay back the costs over 10 years*.'[198]

Eastleigh Borough Council (BC)

7.3 The Panel heard that the Eastleigh BC had a *'commitment to renewable energy.'*[199] This local authority had no housing stock:

*'…so were showing **strong leadership** in developing renewables on council owned property and in partnership with privately owned properties.'*[200]

[196] Phil Webber, Evidence to the Panel, 07.02.11
[197] ibid
[198] ibid
[199] Judith Beard, Evidence to the Panel, 18.01.11
[200] My emphasis, Judith Beard, Evidence to the Panel, 18.01.11

Their programme for renewables included:

- In order to benefit from the FIT, the council has been identifying which of their buildings would be suitable for solar PV. The local authority was now deciding how this should be funded and how the income generated should be used. *'One consideration is whether we look to put any profits…into a community fund to pay for additional [renewables] projects in community settings.'* A decision on this would be made in a few months
- The Get Set Trail which aimed to get renewable energy in public places – including plans to install solar PV and thermal, wind turbines and ground source heat pumps in two country parks
- A CHP system installed at a leisure centre which was providing heat and electricity for this centre and heat to the civic offices
- Low cost loans, originally for energy efficiency works and home improvements, which were being expanded to include funding for renewables. This was because *'…initial costs often discouraged residents from installing their own projects'.*[201]
- CarbonFREE which acts as a fund for the council and others to compensate for their carbon emissions. The fund currently pays for loft and cavity wall insulation in private homes, if they are not eligible for other schemes. They were now starting to use this fund when a developer could not provide the renewables required on site by the SPD, they would be expected to make a suitable contribution (through s.106) into CarbonFREE. This money will be spent on energy efficiency or renewables on community buildings local to the development.[202]

The council had also established a Green Energy Reserve Fund in 2001/2:

'…because the Leader wanted to have money to put towards energy efficiency works and RE in community buildings and settings. This had resulted in energy audits of a range of community buildings and settings to assess which form of renewable energy would be suitable. The Fund could also be used to pay for planning application fees for any … retrofits, but in most cases this was now only needed in conservation areas or for particular technologies.[203]'

The council was also working with registered social landlords (RSLs) to encourage them to put renewables on their stock.

'The council was considering setting…targets for its own buildings, but think it would be too difficult to set …[them] for the wider community although will continue to show leadership, work in partnership and influence where possible.[204]

'As an early adopter, they have had to learn as they went along, although have also learnt from the experiences of Southampton'.

[201] Judith Beard, Evidence to the Panel, 18.01.11
[202] ibid
[203] ibid
[204] ibid

'The most time consuming part had been the tendering process, in particular the legal and finance issues.'[205]

Woking

7.4 Woking Borough Council set up Thameswey Energy Ltd as a joint venture energy services company (ESCo) to finance, build and operate a CHP system. Thameswey Energy was able to attract investment from an external source. As a special purpose vehicle (SPV), it was free to spend that investment with more flexibility than a council could. The council has also received money from a wide range of organisations including: The Carbon Trust; The Energy Saving Trust; The Department of Trade and Industry; and The Department for Environment, Food and Rural Affairs.

The ESCo, Thameswey Ltd is owned jointly by Woking Borough Council and Xergi (a Danish industrial conglomerate). In 1999 Woking Borough Council invested approximately £300,000 to set up the ESCo and the legal framework governing the relationship between it and the council. The council doesn't seek to gain financially from renewable energy projects, but rather reinvests the savings gained so as to remain council tax neutral. The ESCo enables greater flexibility with larger projects which are financed by public private partnerships, the scale of which would not be possible otherwise. Projects undertaken by the ESCo are usually undertaken on a 20% share capital and 80% loan basis with returns of between 8% and 12%. The council uses its prudential borrowing powers to provide the public investment in its joint venture projects. A long term financing structure is needed to ensure this meets prudential rules.

Southampton

7.5 Southampton is a city which has used both renewable and transitional technology. Since the pioneering launch of the initial geothermal project in 1986, the city's DH scheme has employed up to the minute technology. Geothermal energy uses the natural heat of the earth to heat water. This is then pumped through the DH network to provide heat and hot water. Around 12% of energy comes from the geothermal well which is renewable and the remaining energy comes from combined heat and power generators (CHP) which are fuelled by gas and oil. Plans to power the station with biomass are being considered.

Assessing the commercial viability of the geothermal well required an investment of £600,000 - £800,000, provided by the European Union. The approximate cost of setting up, and running, the CHP station was £12 million, provided by the owner Utilicom (now Cofely). Southampton City Council does not contribute financially to the scheme but benefits from reduced energy bills. The council has recently renewed its contract, with Cofely, for the scheme to run a further 25 years.

[205] Judith Beard, Evidence to the Panel, 18.01.11

The combined Geothermal and CHP schemes currently have 43 customers, including an estate of 300 flats, a swimming complex, and a shopping centre and over 100 private residential flats. All of the electrical power from the scheme (26 million kWh) is to be used by Associated British Ports via a private electrical connection to the port. In addition consumers who are served by the district heating scheme include the Royal South Hants Hospital, Solent University and Carnival offices. Locally, there has also been an interest from schools.

Southampton Council profits between £10,000 - £15,000 due to a profit sharing terms outlined in the initial legal agreement. In addition to providing initial planning permission for the scheme the council took a role in actively promoting the scheme and encouraging developers to participate.

Birmingham City Council

7.6 In 2006 Birmingham City Council had set targets to reduce carbon emissions locally by 60 % by 2026 from the 1990 baseline. In 2007 the council constructed its first CHP station with partner Utilicom. In 2011 the council announced plans to install solar panels on 10,000 council homes making this one of the largest solar PV projects in the UK. The project is estimated to cost £100 million and will be funded by a range of partners. Commercial banks will provide half the up-front investment for the scheme, supplemented by £25m from energy companies and £25m borrowed by the council.[206] Seed funding for Birmingham Energy Savers was provided by the local strategic partnership (LSP), Be Birmingham and the Environment Agency. Funding for the pilot came from the Working Neighbourhoods Fund – an area-based grant[207]. Households taking part in the scheme will have to pay a levy on their energy bills to repay the initial loan, but any increase in energy bills will be offset by the savings provided from the solar energy they use.

The council procured the PV panels in June 2010. Six were required for each roof to generate enough electricity to make the installation worthwhile. Within two months a new panel of the same size with 30 per cent higher capacity came on the market for the same price. This improved technology would have been better to use but there was a problem sourcing these panels at short notice

The potential benefits to the scheme include:

- The panels have the capacity to generate 94,000 kW electricity a year, saving 39 tonnes of carbon. Each household with PV panels will save approximately £200 on electricity each year – an estimated total of £11,000 to feed back into the local economy.
- By appointing a supply chain manager, Birmingham ensured that suppliers were local and that they were sourcing supplies locally. This meant the project supported as many local businesses and workers as possible.

[206] http://www.solarpowerportal.co.uk/news/birmingham_city_is_to_install_solar_power_on_10000_council_houses/#

[207] http://www.idea.gov.uk/idk/core/page.do?pageId=23678121

- At the start of the project there were no companies in Birmingham with the right accreditation for installing panels. To find suitable suppliers the council held events where local businesses networked. Many formed partnerships to bid for contracts and instead of competing they grew stronger. There are now three local companies who can do the work.
- Suppliers were asked to employ local people, creating about eight job placements.
- Birmingham Energy Savers invested £500,000 and will be paid back £40,000 to £50,000 annually for the next 25 years. The capital investment, including interest, will be paid back in 13 years.

The importance of sharing best practice

7.7 Sayed Ahmed, a consultant, told the Panel that:

'Some authorities such as Southampton, Sheffield and Aberdeen have those skills now and are sharing best practice'.[208]

As previously noted, Brighton & Hove City Council is part of the South East Region Energy Network (SERENE) which includes Kent and Hampshire County Councils, Southampton and Portsmouth unitaries. This has been an *'invaluable source of information'* such as *'Southampton has particular expertise and experience dealing with district heating systems and CHP.'*[209]

7.8 **The Panel felt that it would be useful for the officers and/or members to meet with the authorities who had started earlier in developing their renewable energy programme, to learn from their experiences.**

[208] Sayed Ahmed, Evidence to the Panel, 18.01.11
[209] Glynnan Barham and Angela Dymott, Evidence to the Panel, 16.02.11

8. Recommendations and key findings

Outcomes

8.1 Having received a comprehensive amount of evidence, the Panel decided to focus on the outcomes it wished to achieve from this inquiry. These were:

- Clear and consistent plans developed by the city and the council for this sector
- Helping the city to move from developing plans and policies for this sector to delivering renewable energy projects
- Raising the profile of this sector
- Making renewable energy a priority for commissioning services in the council
- A council which is working to capitalise on the range of opportunities which come from renewable energy, including training and employment opportunities
- A dedicated team which would be responsible for sustainable energy
- The proper monitoring of renewables and learning from the outcomes of projects

8.2 To achieve this it grouped the recommendations, drawing on the roles which were identified for councils in this sector, under the following headings

- Driving projects forward
- Leadership
- Making the most of opportunities in the sector
- Building capacity and becoming a 'hub'
- Renewable energy for the community

A. Driving projects forward

8.3 The Panel identified that the first focus of its recommendations needs to be on how the council can drive forward the development and delivery of a larger stream of sustainable energy projects, as soon as practicable.

The Panel appreciates that are number of projects are currently being developed, for example the proposal to put solar panels on 1,600 homes. However there is the potential in the city to push forward with an even greater number of projects, due to the:

- Importance of assisting our tenants who are experiencing fuel poverty
- Readiness of a number of organisations in the field including the installers, developers and community energy groups
- Need to take advantage of financial incentives currently available in the field such as FIT
- Need to position ourselves as a 'hub', a city which is growing this sector
- Opportunity to link into, and enhance, other priorities for council and city activity, such as apprenticeships, regeneration and new development

Recommendation 1

The Strategic Director, Place, to publish in 3 months time a public document setting out the council's plans to invest in sustainable and renewable energy.

This briefing report will outline all the proposals for investment options currently being identified for renewable and sustainable energy in the city. This should include the solar project currently being developed by the Housing department, and project appraisals and policy development taking place in other teams, such as the Energy and Water Team. The report must include:

- Detail on the delivery vehicles to be used e.g. an Energy Services Company (ESCo) and how this would relate to the creation of a dedicated team or energy agency for the city
- How the schemes which are being developed will fit into, and underpin, progress towards a long term strategy for sustainable energy in the city
- The timetable for implementation, for example whether the proposed projects meet the April 2012 deadline before the Feed In Tariff (FIT) rate is reduced
- A consideration of how such schemes will be used to address fuel poverty, and whether some of the income generated by FIT could be used to fund projects to benefit council tenants
- The potential for using the income to set up funds to benefit the community
- Whether there will be sufficient capacity to install the proposed solar PV programme, at a time when many other locations could be seeking to implement projects before the FIT rate changes
- How installing other renewable energy technologies in the city could be financed and how other technologies may be encouraged by future funding opportunities
- If only 1,600 out of 12,000 council homes are felt to be suitable for solar Photo Voltaic (PV) installations – whether the remaining homes would be suitable for any other kind of renewables technology
- How the Council could learn from other good practice organisations such as Kirklees Council

Shoreham Port

8.4 Shoreham Port is an example of a project which is being currently developed, where there is potential for the council to take a role in driving forward the growth of renewable energy. It was obvious to the Panel that this opportunity needed fast action, because Peter Davies, the Port's Development Director said that:

'…we do need the assistance and need to get on with it quickly'.[210]

The Port had been identified in the Council's Core Strategy as a major opportunity for renewables. The Panel heard that with the adoption of a Masterplan, setting out proposals for growth of up to 25% over the next 15 years:

[210] Peter Davies, Evidence to the Panel on 07.02.11, http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3205&T=1

'It was an exciting time at the beginning of a process'[211]

The Masterplan highlights the *'unique opportunity for renewable energy projects'*[212] which could include:

- A 25% growth in throughput in the Port over the next 15 to 20 years, which would boost the local economy and jobs market
- 450,000 sq ft of warehousing with the opportunities for solar panels – 'looking for a partner to finance the investment'.
- Incorporating renewables into the substantial investment in new buildings and retrofitting
- A steel processing plant which is being built for £10m and renewables would be 'a key part of this project'[213]
- The proposed Edgeley Green Power Station
- Opportunities to install wind turbines
- The PortZED development –with district heating opportunities

The assistance the Port Authority needed was described by them as '…*hand holding and offering practical guidance*'[214] and included:

- Bringing together the different interest groups
- Helping the project to be seen as a community project
- Help establishing a District Heating Scheme
- Signing people up to projects
- Benefiting from the expertise of council officers[215]

This was all work which could be helped by the council and ensure that the city maximized its involvement in the regeneration of the area.

[211] Peter Davies, Evidence to the Panel on 07.02.11, http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3205&T=1
[212] Shoreham Port Masterplan Leaflet, October 2010 http://www.shoreham-port.co.uk/write/documents/Port%20Masterplan%20Leaflet%20Final%2026%2011%2010.pdf
[213] [213] Shoreham Port Masterplan Leaflet, October 2010 http://www.shoreham-port.co.uk/write/documents/Port%20Masterplan%20Leaflet%20Final%2026%2011%2010.pdf
[214] ibid
[215] ibid

Recommendation 2: Encouraging the city to invest in renewables

The Strategic Director, Place, to approach major local land-owners and developers (including Shoreham Port) to explore as a matter of urgency how they can incorporate renewables in their developments.
The Strategic Director, Place, to report back on progress in 3 months time.

This exploration activity should also include:

- Work on how to involve potential partners – whose core business is sustainable energy – into discussions in order to see if effective partnership arrangements can be made and maintained
- The soon to be launched (Spring 2011) 'Low carbon and environment goods and services' partnership' (See Environment Industries Inquiry Recommendations: 4, 6, 9, 14 – see http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf)
- An assessment of the council's capacity in terms of knowledge, skills, data and evidence from elsewhere – to ensure that negotiations with developers achieve the best possible outcome for sustainable energy within those developments.

8.5 The implementation of recommendations 1 and 2 needs to be done in a way that can serve to:

- Grow the confidence of the sector in the city – the demonstration effect
- Send a clear message of support to stakeholders, including potential developers
- Give community organisations the opportunities they need now

Please note that due to the urgency of undertaking recommendations 1 & 2, that where deadlines are included these are calculated from April 2011.

The recommendations which follow are then focused on realising the full potential and long term future for renewable energy in the city.

B. Leadership

8.6 The Chair's foreword to this report emphasises the need for citywide leadership, having observed that:

'Much of the potential is currently frustrated because there is no co-ordinating leadership that brings together the people with the skills, finance, spaces, technologies, and plans in a way that makes sure projects happen'.[216]

One of the first tasks for the Panel was to find out what the council was already doing to promote renewable energy. However, this was easier in theory than in practice.

[216] Chair's Foreword, see pages 3-4 of this report

Work is being undertaken by both the Housing Department and the Property & Design Service (on projects to install renewables on the council's housing stock and for council accommodation respectively). However, getting information on these projects has been by no means simple - even for council officers. In the end the Panel had to rely on the spoken evidence provided by the witnesses, as the primary source of information on the projects which are being developed. We could only assume that would-be developers face similar barriers.

It did appear that the different teams in the council charged with developing renewable energy initiatives were working with one another. However, there is currently no unified policy for this sector and little publicly, or internally, available information on renewables.

8.7 The Panel felt that it was essential for the council to agree a corporate position on renewables - identifying the key outcomes and objectives – drawing from the citywide vision for the sector - and then charge various teams with delivering elements of the council's vision. The Panel understands this to be a key aspect of 'intelligent commissioning' – developing plans centrally in order to avoid unnecessary duplication and 'silo' working.

With this in mind, the Panel has developed a series of recommendations which seek to:

- Produce a unified sustainable energy programme for the city, which places renewable energy firmly at the centre
- Make clear who is leading on this issue
- Establish a team which has renewable energy as its core business.

City Leadership

8.8 The Head of Sustainability explained to the Panel that:

'The City Sustainability Partnership (CSP), drove city ambition on carbon reduction and this included renewable energy. This was reflected in its drafting contribution to the Sustainable Community Strategy and current development of a revised city Climate Change Action Plan. The planning process had included a review of the original 2006 version and will also reflect the agreed outcomes from this Panel's recommendations.'[217]

The witness from DECC also suggested that once mapping information had been passed onto the Strategic partnership, the CSP could act as a *'…co-ordinator, broker and influencer'*[218]

[217] Thurstan Crockett, Evidence to the Panel, 16.02.11
[218] Patrick Allcorn, Evidence to the Panel, 06.12.10

Recommendation 3: A sustainable energy programme for the city

The council to feed into a city wide energy planning process. This programme could be developed by the City Sustainability Partnership, if sufficiently resourced, to produce a citywide sustainable energy programme, to ensure that sustainable energy is integrated into all appropriate projects.

This would be led within the Council by the Strategic Leadership Board and published in 5 months time. Given the evidence heard about place and importance of renewable energy, one of the main purposes of the programme should be to identify and integrate the role and potential of renewables in:

- The context of local sustainable energy planning and to integrate this planning with preparing for future funding arrangements e.g. the Government's Green Deal and Renewable Heat Incentive (RHI)
- Carbon emissions reduction
- Tackling fuel poverty
- Creating and protecting jobs and forming apprenticeships
- Setting sustainable energy targets for the city.

Political Leadership

8.9 Evidence from Sayed Ahmed, of Arup Consultancy, emphasised that:

*'Local authorities who lead in this area have all had **strong political leadership** which has:*

- *Allowed a period of time for opportunities to grow and for projects to succeed e.g. planning process*
- *Given clear leadership and confidence to developers*
- *Used the learning from early projects to roll out further ones*[219]

Howard Johns of Southern Solar also emphasised the:

'… need for political leadership. It is a complex area because there is not an obvious procurement route, which makes people cautious[220]*.*

[219] Sayed Ahmed, Evidence to the Panel, 18.01.11 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3174&T=1

[220] Howard Johns, Evidence to the Panel, 07.02.11

Recommendation 4: A Council policy on sustainable energy

The Strategic Director, Place, to develop a corporate policy on sustainable energy which would bring together the work being undertaken across the authority.

This would set out how the authority will work towards the citywide sustainable energy programme and will need to be published by July 2011 (given the amount of policy development in this area and the tight timescales for implementation).

The policy should address the following issues:

- What is proposed for each tenure in the city, including the council's property portfolio
- What roles the council will play to enable the growth of this sector e.g. facilitator, supporter, developer and commissioner
- Identify where there are gaps in current Planning policies and practices
- Look at how Recommendations 1 and 2 would link with or feed into the Climate Change Action Plan and other key city plans. This could include a mapping exercise to show where policies are situated and how they link up
- Ensure that financial modelling is included, which takes full account of the social and environmental costs and benefits of renewables
- Consider how to learn from schemes pioneered by local authorities leading in the renewables sector elsewhere in the country
- Short, medium and long term plans and priorities for the council. The policy could include pathways via which relatively straightforward projects are used to build capacity, confidence and interest in subsequent longer term projects (which currently appear more challenging)

Council Leadership

8.10 Patrick Allcorn, who focuses on the community ownership of renewable energy, for the Department of Energy and Climate Change (DECC) emphasised that:

*'… the council needs an **overall local strategy**, which links demand and capacity'.*[221]

Responsibility for delivering the majority of the Panel's recommendations has been assigned to the Strategic Director, Place. This is because he sits on the Council's Strategic Leadership Board and is responsible for services including Planning, City Infrastructure, Housing and Economic Development and Regeneration. He will therefore be in a position to:

- Help develop the overarching vision for renewables in the city
- Deliver strategic leadership by linking key policy initiatives
- Set service priorities
- Drive collaboration between sectors, organisations and partnerships across the city

[221] My emphasis, Patrick Allcorn, Evidence to the Panel, 06.12.10

Recommendation 5: A sustainable energy team

The council to explore how to establish a dedicated team – for example, a Sustainable Energy Agency - to take forward sustainable energy initiatives in the city.

This team would be responsible for implementing the citywide sustainable energy programme and realising these energy projects in partnership. The desirability of a range of models should be explored. These alternatives could include:

- A council owned Energy Agency for the city
- A task group within the council or
- Contracting with a social enterprise, co-ops or a not-for profit organisation

A dedicated team would have sustainable energy as its core business and could drive forward projects in this sector. It could alert partners to emerging opportunities and give advice on how best to realise these opportunities. The team would also be responsible for working on energy demand reduction as well as renewable energy supply.

Feasibility studies should include an assessment whether the cost of establishing such a team could be recouped from energy revenues in the city. It would also be a source of city-specific expertise for planners and others negotiating renewable energy requirements with developers as well as people wishing to develop renewables in the city. Similar teams, or agencies, created in other parts of the UK should be studied in order to see what is appropriate for Brighton & Hove.

C. Making the most of opportunities

8.11 The evidence heard by the Panel suggested that the full potential of this sector was not currently being realised in the city. There was scope for the council to take further action to capitalise on opportunities, including:

- Seizing the chance to work in partnership on projects currently being developed in the area - such as Shoreham Port (see also Recommendation 2). The aim would be to facilitate the incorporation of renewables into such developments
- Learning from the positive experiences, and outcomes, of other local authorities, including Kirklees Council and Eastleigh Borough Council who spoke to the Panel
- Working to improving the experience of developers and installers. The Panel heard from witnesses had approached the council and either not received a positive response or found the process difficult to navigate

An example of this was given by Howard Johns, from Southern Solar, who told the Panel that when approaching the council about leasing roof space:

'…this had not been met with huge enthusiasm from the council. What was needed in the council was leadership and risk taking.'[222]

[222] Howard Johns, Evidence to the Panel, 07.02.11

Recommendation 6: Long term strategic planning

The Council to undertake, or enable, a study on renewable energy potential in the city over the next 10 years.
This study would include geographical opportunities, funding and partnership opportunities.

Mapping opportunities

8.12 The Head of Planning told the Panel that:

> *'…more and better monitoring is crucial… a capacity study would be beneficial. For example, studying heat loads and assessing both where heat is generated and where it is needed in the city'.*

This was backed up by the witness from DECC who suggested that the council could:

> *'…map where technologies e.g. wind and solar, would be viable in the city. This information could be disseminated to communities to enable them to develop their own schemes and to the Local Strategic Partnership (LSP).*[223]

Recommendation 7: A heat mapping exercise

The Strategic Director, Place, to ensure that a heat mapping exercise is undertaken to assess the feasibility and map opportunities for District Heating in the city. To be completed within 5 months.

Being aware of the consequences of failing

8.13 The Panel was made aware that if the city failed to take the opportunities offered by this sector, it could have the following consequences:

- Failing to maximise the potential income stream from renewable energy, which is especially important in a time of financial constraint
- Missing the chance to help the most disadvantaged in the city
- Passing up the chance to develop new economic activity in the city
- Not enabling the wider population to realise the potential benefits from this sector
- Tarnishing our reputation as a sustainable city, as other cities take fuller advantage of the opportunities from this sector. Effective use of renewable energy could enable the council to realise one of its corporate priorities to *'protect the environment while growing the economy*[224]

[223] Patrick Allcorn, Evidence to the Panel, 06.12.10
[224] Brighton & Hove City Council's Corporate Plan 2008-2011, http://www.brighton-hove.gov.uk/downloads/bhcc/performance_team/Corporate_Plan_2008_V310708.pdf

Evidence from Kirklees Council, as well as the council's Lead Commissioner for Housing, highlighted how the growth of renewable energy could be used to benefit the most vulnerable groups in the city who suffer fuel poverty.

Recommendation 8: A priority for Intelligent Commissioning

The Strategic Director, Place, to consider the suitability of sustainable energy as a priority for Intelligent Commissioning and identify how both sustainable and renewable energy could be embedded in the Council's planning process. This could include**:**

- Using the findings of this Panel to assess the merits of this issue as a priority for Intelligent Commissioning
- Carbon compensation, a financial contribution from developers to compensate for full emissions from new developments over their entire lifetime, elsewhere in the city through grant creation
- Incorporating renewable energy information into the draft Householder Extension Supplementary Planning Document
- Looking at the provision in the Localism Bill relating to using pools of money to overcome planning objections.
- Effective monitoring of RE projects through the Sustainability Checklist for Planning

A report to be produced within 3 months which would include a timetable for implementing any recommendations.

8.14 Concerns over the monitoring of renewable energy projects in the city were raised by some of the witnesses.

Recommendation 9: Monitoring sustainable energy

The Head of Planning and Public Protection to identify a resource to monitor renewable energy projects in the city and establish a monitoring system which enables learning from these projects to inform future policy.

D. Building capacity and becoming a 'hub'

8.15 One of key aims of this Panel was to look at how to encourage the city to install an increasing amount of renewables. In order to achieve this, the Panel have developed a set of recommendations to build capacity in order to be able to establish the city as 'hub' for sustainable energy.

Can Brighton & Hove become a 'hub'?

8.16 Howard Johns from Southern Solar told the Panel that:

`'It would be possible to make Brighton & Hove a 'hub' for renewable energy. Kirklees was a 'hub' because they had just got on with the projects. **It would be best to start with small projects, go and actually do them and then see if they work.**[225]

This was endorsed by Ross Gilbert of Quoin Estates and Developments who:

'…felt there was a huge opportunity to make this city a hub…There were a large number of targets and papers on issues but a lack of action. He felt that the council's role should include…having the desire to see projects happen.[226]

Will the Rampion project have a positive effect?

8.17 E.ON was awarded the right to seek consent to develop a large-scale offshore wind farm, named Rampion, off the Sussex coastline, by the Crown Estate in the Round 3 offshore wind programme. They have established an office in Brighton & Hove to develop this project which has a target capacity of 665 MW. E.ON is planning to apply for consent in 2012 and anticipate that the tendering, procurement, construction and delivery of the project will take place between 2014 - 2016. It is anticipated that for the city:

'The key economic impact will be the creation and support of employment during the construction and operational life of the project. The impacts may occur either directly, indirectly or through induced impacts such as through the use of local services.[227]

The Lead Member for Sustainability told the Panel:

'E.ON is brilliant news in terms of the supply chain and will help local businesses and retain graduates. It is a city wide strategy to work with such people and retain them for the next 20-30 years.[228]

The development of such a significant project is likely to have an effect in the following ways:

- Encouraging the growth of organisations to assist in the construction and delivery of the project
- By encouraging other renewable energy companies to relocate to Brighton & Hove
- Creating employment opportunities in certain sectors

Retaining our students

8.18 Research conducted in 2008 found that that approximately one-third of the city's annual graduating population (which equates to 2,300 people per annum) plan to stay in the city in the short term and hope to in the longer term. One of the deciding factors was the employment opportunities available in the

[225] My emphasis, Howard Johns, Evidence to the Panel, 07.02.11
[226] Ross Gilbert, Evidence to the Panel, 07.02.11
[227] Rampion Scoping Report, E.ON, September 2010 http://www.eon-uk.com/downloads/Rampion_Scoping_Report_Final_Rev02__low_res.pdf
[228] Cllr Ayas Fallon-Khan, Evidence to the Panel,

city. The study found that graduates from the University of Sussex were concerned about:

'…the existence of enough graduate-level job opportunities and pay. In both cases expectations are high and graduate satisfaction does not match these expectations. Importantly, ***a perceived lack of graduate opportunity*** *is the main reason for leaving the locality. Only 40 per cent of graduates agree that they could find a job in Brighton and Hove that matched their qualifications and only 18 per cent would recommend it as a good place to find suitable employment.*[229]

Recommendation 10

The Strategic Director, Place, to ask the Economic Development team to review and identify the training and employment suppliers for this sector; including the opportunities and gaps – e.g. apprenticeships, helping job seekers, City Employment Skills Plan and potential links to the city's Economic Partnership and the 'Coast to Capital' Local Enterprise Partnership.

(See the recommendations of the Environmental Industries Scrutiny Panel – including Recommendation 6 http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf)

Losing out to other cities

8.19 The need for the council to act swiftly was reinforced by the evidence from local authorities who were further along in their renewables work. These councils also highlighted the level of resources required to implement a renewable energy programme, the complexity of such projects and the range of skills needed.

Raising the profile of renewable energy

8.20 The Strategic Director, Place, told the Panel that:

'The council … has a role in keeping the public informed about renewables e.g. providing Planning advice & information on our website, such as funding opportunities.[230]

Written evidence to the Panel showed the benefit of holding awareness raising events. A city resident wrote that:

'….although I was passively interested in green energy and solar, it was the experience of the B&H Council sponsored open houses weekend which inspired me to proceed with a solar installation without delay. I would recommend further similar events as a way of motivating local interest. Further publicity about available grants may well increase interest also.[231]

[229] The Brighton Factor, 2008 http://www.employment-studies.co.uk/pdflibrary/450.pdf

[230] Geoff Raw, Evidence to the Panel, 06.12.10

[231] Written evidence to the Panel, see Volume 2

The Chair of the Hove Civic Society told the Panel that they felt:

'…this debate about renewable energy had not yet reached members in the city. There was a need for a big publicity campaign to convince citizens.'[232]

Recommendation 11: Raising the profile of renewables

The Strategic Director, Place, to establish a campaign to raise the profile of renewable energy.

This would complement, or form part of, the work planned for raising the profile of the low carbon industries sector, sector information and business directory, awareness raising events and website. (See Environmental Industry Scrutiny Panel Recommendations 1, 3, 4, 6, 8, 9, 11, 14, 16, 19 and 20 at http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf

Anticipatory planning

8.21 The council needs to plan for the changes that will come with new measures such as the Green Deal. For example this may stimulate a demand for external wall cladding. The council should be thinking about such matters and have planning arrangements in place so that these issues can be dealt with when they arise. Another example would be planning for forms of heating, such as biomass boilers, that could become incentivised under the RHI.

Recommendation 12: A statement of ambition

The City Sustainability Partnership to be resourced to link up with universities, developers and installers in the city, community groups, as well as energy utility companies and developers experienced in city-scale renewables in other cities to produce a statement of ambition on sustainable energy for Brighton & Hove.

This statement would describe:

- Where the city is now
- What it can offer to this sector
- What needs to be developed to sell the city as a 'hub' for sustainable energy.

[232] Helmut Lasser, Evidence to the Panel, 07.02.11

E. Renewable energy for the community

Learning from Europe

8.22 Denmark is aiming to become fossil-free by 2050 and is already a world leader in wind power with 3GW installed capacity. The level of wind power is projected to rise to between 10GW and 18.5GW – the vast majority offshore.[233] To help achieve this, Denmark had set a target of 20% of renewable energy to be community owned.[234]

Benefiting the community

8.23 Patrick Allcorn from DECC reminded the Panel that the benefits of community engagement included both *'increased engagement'* and a *'better understanding of their neighbourhood'*.[235]

Establishing credibility

8.24 Howard Johns, from Southern Solar, told the Panel that when talking to the council about the possibility of setting up an ESCo, that *'…silence has been the main reaction from BHCC.'*[236] He emphasised that:

'The difficulty community groups face is that they do not have a track record or investment credibility. This means that their projects are treated as laughable, and they find it difficult to make them stack up.'[237]

Economic benefits of community organisations

8.25 Will Cottrell highlighted that one of the benefits of co-ops, such as the Brighton Energy Co-op, was the *'local multiplier effect.'*[238]This term was coined to highlight the benefits from money which is spent and re-spent in a local economy because:

'More re-spending in the local economy means a higher multiplier effect because more income is generated.'[239]

Councillors as community advocates

8.26 The witness from DECC suggested that councillors had a:

'…role as community leaders, putting forward the business case and opportunities for the community.'[240]

Enabling community organisations

8.27 The Panel heard that Community Interest Companies in the energy domain are quite new and small and still need to prove their credibility and credit

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[233] http://www.forumforthefuture.org/greenfutures/articles/Denmark_2050
[234] Will Cottrell, Evidence to the Panel, 06.12.10
[235] Patrick Allcorn, Evidence to the Panel, 06.12.10 http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=3140&T=1
[236] ibid
[237] Howard Johns, Evidence to the Panel, 07.02.11
[238] Will Cottrell, Evidence to the Panel, 06.12.10
[239] http://www.proveandimprove.org/pdfs/pdf_24_tools.pdf
[240] Patrick Allcorn

rating. Therefore they may find it difficult to take up the large opportunities, such as those at Shoreham Port.

8.28 **The Panel felt that it would be useful if some of these opportunities, could be broken down into smaller 'lots' to enable community energy companies to have a chance to build up their project management experience.**

Recommendation 13: Helping community energy

The Strategic Director, Place to ensure that the Citywide Sustainable Energy programme would have as a key aim to use the growth of this sector to assist the community.

This could include:

- A commitment from the council to enable and encourage community-based organisations aiming to develop sustainable energy. For example help in identifying sites, leasing roof space to such organisations and requiring a number of smaller lots (amenable to community based bids) within large developments.
- A commitment to look for community opportunities in the development of projects which incorporate sustainable energy
- A publicity campaign to raise the profile of the issue in the community
- The council to commit to setting up a pilot scheme which uses renewables to generate income which is then used to set up a community fund to benefit a specific area
- The City Sustainability Partnership to be resourced to explore ways of encouraging community involvement in sustainable energy

9. Conclusion

Why is renewable energy important?

9.1 The growth of renewable energy (RE) is both an international and national priority, because this form of energy can:

- Promote the security of energy supply
- Help tackle climate change
- Address pollution problems with conventional fuel extraction and combustion
- Respond to increasing energy costs
- Develop new sectors for the economy

Legally binding targets have been set to ensure the growth of renewable energy and government policy aims to encourage the development of this sector. The national target is to supply 15 per cent of the UK's energy from renewable sources by 2020, a seven-fold increase on levels in 2008 (only 2.2%).

Incentives to grow this sector

9.2 Significant incentives (said to be worth £30 billion between now and 2020) are on offer in the UK to encourage the growth of this sector to help meet these stretching targets. One of the Terms of Reference of this scrutiny panel was:

'To assess how best to take advantage of the financial benefits which are currently available, include the [Feed in Tariff] FIT scheme'[241]

The urgency of expanding this sector was emphasised recently by the Committee of Public Accounts which felt that:

'Given the urgency of the issue, progress in meeting …targets has been unacceptably slow over the last decade.'[242]

How the city could benefit

9.3 The Panel was struck by how many benefits the growth of this sector could bring to the city and the importance of taking timely action to capitalise on these incentives. These include:

- The potential for income generation from incentives such as the Feed in FIT and RHI
- National government support and funding opportunities
- New investment funds looking for local and community opportunities
- The Renewable Heat Incentive, with phase 1, available from July 2011 to householders

[241] Scoping report of the Panel, December 2009

[242] Parliament press release on Committee of Public Accounts report on government funding for renewable energy technologies http://www.parliament.uk/business/committees/committees-a-z/commons-select/public-accounts-committee/news/pac-7th-report/

The council is currently working on an options appraisal relating to FIT[243] which aims to:

'…ensure that tenants and the council can maximise opportunities to benefit from investment opportunities.'[244]

Taking these opportunities

9.4 However, the evidence heard by the Panel suggested that the potential of this sector was not currently being realised in the city. There was scope for the council to take further action to capitalise on opportunities, including:

- Seizing the chance to work in partnerships on projects currently being developed in the area - such as Shoreham Port. The aim would be to facilitate the incorporation of RE schemes into such developments
- Learning from the positive experiences, and outcomes, of other local authorities, including Kirklees Council and Eastleigh Borough Council who spoke to the Panel
- Working to improving the experience of developers and installers as the Panel heard from witnesses had approached the council and either not received a positive response or found the process difficult to navigate

The recommendations of this Panel are aimed at realising this potential and recognising the important role that council can play in growing this sector. These roles include:

- **Driver** (e.g. through Planning requirements)
- **Supporter** (e.g. by raising awareness and generating consent)
- **Facilitator** (e.g. through hosting partnerships)
- **Developer**
- **Enabler** (e.g. through the use of its estate)
- **Commissioner**
- **Community leader** (e.g. through investing sustainable energy funds locally)

While renewables can best be planned for as part of a wider strategy for sustainable energy, the Panel felt that it was important to give sufficient recognition to renewable energy within such a programme.

The need to act now

9.5 The need to seize the opportunities offered by this sector was reinforced by the Government announcement in February 2011 that they were bringing the review of FITs forward to 2012. There would also be a fast track review of Solar PV projects over 50kW. In March 2011 the Government then published proposals to reduce support for all new PV installations larger than 50kW and stand alone installations. However they did announce that the rate for anaerobic digestion may be increased.

[243] http://present.brighton-hove.gov.uk/mgConvert2PDF.aspx?ID=2797&T=10
[244] Home Energy Efficiency Investment Opportunities, Update to HMCC , 13.12.10

9.6 The need for the Council to act swiftly, was also reinforced by the evidence from local authorities who were further along in their renewables work. These councils also highlighted the level of resources required to both enable the growth of, and develop, renewable energy. Stress was also placed on the complexity of such projects and the range of skills needed.

Failing to deliver

9.7 The Panel heard that if city failed to capitalise on the opportunities offered by this sector, it could have the following consequences:

- Failing to maximise the potential income stream from renewable energy which is especially important in a time of financial constraint
- Missing the chance to help the most disadvantaged in the city
- Passing up the chance to develop new economic activity in the city
- Not enabling the wider population to realise the potential benefits from this sector
- Tarnishing our reputation as a sustainable city, as other cities take fuller advantage of the opportunities from this sector. It could enable the council to it realise one of its corporate priorities which is to *'protect the environment while growing the economy*[245]

Evidence from Kirklees Council, as well as the council's Lead Commissioner Housing, highlighted how the growth of renewable energy could be used to benefit the most vulnerable groups in the city who suffer fuel poverty.

Encouraging take up

9.8 While it is recognised that a significant deterrent to installing renewables can be the upfront costs, the Panel hope that a full understanding of the returns that can be delivered combined with retrofitting, will encourage a greater take up of this form of energy both by the council, partners and the wider community. Indeed, the Panel learnt about a variety of schemes that redistribute costs and benefits over time and are making renewable energy a much easier and attractive prospect.

Links to previous Panels

9.9 The work of this Panel can be linked to two of the council's previous scrutiny panels which looked at how the city could capture the benefits of environmental industries and plan for a changing local climate and extreme weather.

The inquiry into Environmental Industries concluded that:

'The council recognises that it must seize the opportunity to become involved in the development of the sector, in order to influence it from the centre rather than the periphery…other local authorities are preparing to maximise the chances offered by this sector and are developing the infrastructure to

[245] Brighton & Hove City Council's Corporate Plan 2008-2011, http://www.brighton-hove.gov.uk/downloads/bhcc/performance_team/Corporate_Plan_2008_V310708.pdf

service these industries. ***So if our city fails to grasp this opportunity, then other locations will benefit.***[246]

Where relevant, the findings from these previous Panels have been linked to the recommendations proposed by this Panel.

The Panel were struck by the evidence they heard that of how much some local authorities have managed to achieve, by a combination of:

- Leadership
- Taking action
- Enabling work to help build the city as a 'hub'

While Brighton & Hove has a significant number of plans and policies to grow this sector, it needs to go ahead and do something now. This will bring a significant number of opportunities to the city and so should not expose the city to losing out to other locations which may seize the chances before us.

[246] Bold my emphasis, Environmental Industries Inquiry – Capturing the potential and economic benefits for Brighton & Hove, October 2009, http://www.brighton-hove.gov.uk/downloads/bhcc/democracy/Environmental_Industries.pdf

10. The way forward

10.1 This Panel report will be considered at the Environment and Community Safety Overview and Scrutiny Committee (ECSOSC) on 4 April 2011.

It will then be referred to the Executive and appropriate partner organisations and the Executive response will be reported back to ECSOSC. A summary of the Scrutiny Panel's report and the Executive response will then be presented for information to Full Council. ECSOSC will request implementation reports at six monthly intervals until all the agreed recommendations have been implemented.

11. Glossary

BREEAM	Building Research Establishment Environmental Assessment Model
CIL	Community Infrastructure Levy
$C0_2$	Carbon Dioxide
CSP	City Sustainability Partnership
CHP	Combined Heat and Power
CHPA	Combined Heat and Power Association
CRC	Carbon Reduction Commitment
CTEOSC	Culture, Tourism & Enterprise Overview and Scrutiny Committee
DECC	Department of Energy and Climate Change
ECSOSC	Environment and Community Safety Overview and Scrutiny Committee
EMS	Environmental Management System
ESCo	Energy Services Company
EU	European Union
FIT	Feed in Tariff (a financial incentive for renewable energy)
GSHP	Ground Source Heat Pump
HRA	Housing Revenue Account
kW	Kilowatts
MW	Megawatts
OVESCo	Ouse Valley Energy Services Company Ltd
PV	PhotoVoltaic
RE	Renewable Energy
RHI	Renewable Heat Incentive
RSLs	Registered Social Landlords
SPD	Supplementary Planning Document