apse membership resources

Briefing 11/37 **July 2011**

Green income generation for local authorities

To: All contacts in England, Wales and Scotland
To: All contacts in Northern Ireland for information

This briefing provides details of the ways in which local authorities can take advantage of opportunities in renewable energy to both tackle climate change and generate income. It also signposts readers to helpful documents, additional information and a glossary of terms commonly used when discussing renewable energy.

Key issues:

An outline of the legislative framework and policy context that local authorities should be aware of when planning green projects
Detailed information on the funding incentives available for renewable energy generation including feed in tariffs and the renewable heat incentive
An outline of the benefits to the local authority that can be derived from renewable energy generation
Additional information including details of available publications, events and previous briefings issued
Glossary of terms commonly used when discussing renewable energy
Further information and support is available from APSE by contacting djohns@apse.org.uk

1. Policy Context

Climate change is an area of increasing obligations for local authorities. The Government has signed up to international, EU and national targets. Under the Kyoto agreement, the UK agreed to cut greenhouse gas emissions by 80%; it is subject to the EU renewable energy directive, whereby 15% of our energy needs to come from renewable sources. Indeed on a national level, the Climate Change Act 2008, Climate Change (Scotland) Act 2009, One Wales commitment and Northern Ireland Programme for Government all set challenging targets to reduce emissions.

The Carbon Reduction Commitment started in April 2010 and is the UK's first mandatory carbon trading scheme, covering both public and private sector organisations, including local authorities. It is designed to encourage large non-energy intensive organisations in

the UK to reduce their CO2 emissions. The aim of the carbon reduction commitment is to reduce the level of carbon emissions by approximately 1.2 million tonnes of CO2 per year by 2020. As a Climate Change Act commitment, the scheme is aiming for an 80% reduction in CO2 emissions by 2050. The scheme features a range of reputational, behavioural and financial drivers. APSE has produced a series of briefings updating local authorities on the CRC, which can be found here, here and here. To view the latest updates on CRC, please click here.

Local authorities need to be part of this positive agenda around tackling climate change as it offers huge positive opportunities locally as well as obligations that of course need to be met. Targets set nationally or internationally filter down to local level, either directly (for example by local authorities being subject to the Carbon Reduction Commitment or CRC Energy Efficiency Scheme) or indirectly via local authorities having to aspire to greater heights of carbon management in their buildings.

Last year APSE produced a briefing setting out how to maximise the economic and environmental case underpinning energy and green issues, which can be found here.

2. Funding incentives available

There are three main financial incentives in place, which have been introduced to ensure that the UK has a chance of meeting the greenhouse gas emissions targets it has agreed internationally. These are the Renewables Obligation (RO), the Feed in Tariffs (FIT) and the Renewable Heat Incentive (RHI). The RO is a commercially based renewable energy incentive and has been in place for some time now. This briefing will focus on the other two incentives as they are of much more relevance to local authorities.

2.1 Feed-in Tariffs:

The Feed in Tariff (FIT) covers electricity generation on a smaller scale and is designed to act as a financial incentive to encourage the deployment of more renewable energy technology. APSE has recently produced briefings on feed-in tariffs which can be found here and here.

Simply, FITs involve a sum of money being paid to each person who generates electricity from qualifying renewable sources, including solar PV. The FIT is split into two parts: the generation tariff, which is paid for the actual creation of the power and the export tariff, which is paid if the electricity is put into the National Grid. The amount of each generation payment is dependent on the type of technology and size of the system and the export tariff has been set at a standard rate of 3 pence per kWh.

It is however important for APSE members to note that FIT rates will be subject to a degression scale meaning that from 2012 onwards new entrants to the FIT scheme will receive a lower FIT payment than those who joined at the start. However, once you have joined the scheme and have a qualifying registered facility, you are guaranteed the FIT level applied at that time for the entirety of the 20-25 year period. There is therefore some urgency in moving ahead with these proposals.

Effective use of FITS can provide income streams for up to 20-25 years for a local authority that introduces a qualifying renewable energy scheme. (20 years in the case of wind and hydro and 25 years for the installation of solar photo voltaic panels to generate electricity.)

Instigating such a scheme can bring significant benefits to both the local authority and wider community (particularly if it is done directly) and the best way to do this is to create a **revolving fund** to pay for the substantial works necessary. A step by step guide to creating a revolving fund for local authority solar energy is covered in significant detail in the APSE publication, 'The virtuous green circle'.

2.2 Renewable Heat Incentive Scheme (RHI):

The scheme will be introduced in two phases. In the first phase, long-term tariff support will be targeted in the non-domestic sectors, at the big heat users (the industrial, business, public and not-for profit sector) which contribute 38% of the UK's carbon emissions and which is of most interest to local authorities and public service providers. Under this phase there will also be support of around £15 million for households through the Renewable Heat Premium Payment (*see section 2.2.1 below*). The second phase of the RHI scheme will see households moved to the same form of long-term tariff support offered to the non-domestic sector in the first phase.

The RHI aims to provide long term support for renewable heat technologies, from ground-source heat pumps to wood-chip boilers. Crucially it will provide significant opportunities for local authorities and other public service providers to benefit.

APSE has recently produced a briefing on the Renewable Heat Incentive which can be found here. The briefing gives significant detail on what will happen at each stage of the scheme, how local authorities can access support, which technologies and fuels will be available as well as the level of likely payments. There is also a wealth of information on DECC's website about the RHI including a policy document setting out detailed arrangements for the scheme, an impact assessment and frequently asked questions.

Eligible technologies and fuels: The RHI will only include technologies which the European Commission considers to be renewable under the Renewable Energy Directive (RED), only providing incentives for technologies which are in commercial use in the UK. The RHI is not intended as a mechanism to support innovative technologies in development or early deployment phase. It is also important to note that the RHI will only support a unit of heat once.

Level of support available*:* Payments will be calculated by multiplying the appropriate tariff (depending on the technology and size of the installation) by the eligible heat use. Details of tariff levels and likely support levels can be found here.

2.2.1 Renewable Heat Premium Payments

The Renewable Heat Premium Payment scheme is a government scheme that gives money to householders to help them buy renewable heating technologies – solar thermal panels, heat pumps and biomass boilers. As from next year, the Renewable Heat Incentive will expand to cover the domestic sector and the Green Deal will come into force, so this is a short-term scheme making one-off payments. The Renewable Heat Premium Payment scheme will run from 1 August 2011 – 31 March 2012.

Summary of scheme conditions:

- Households will be able to apply to the Energy Saving Trust (EST) from the 1st Aug 2011.

- The house must be the main home and it must have basic energy efficiency measures in place. This means the householder will need to confirm they have loft insulation to 250mm and cavity wall insulation, where these measures are practical.
- The renewable heat product must be listed under the Microgeneration Certification Scheme and be installed by someone registered under the scheme or equivalent.
- Once the equipment is up and running, the householder will be asked to fill in two customer surveys and may be chosen at random to have extra meters attached to the installation which will be provided free of charge. It is a condition of the scheme that if requested these meters are installed.

Eligible technologies:

- Solar thermal - £300 grant (available to all households regardless of type of heating system)

- Biomass boiler - £950 grant (for homes without mains gas heating)

- Air Source Heat Pump - £850 grant (for homes without mains gas heating)

- Ground Source or Water Source Heat Pump - £1250 grant (for homes without mains gas heating)

3. Benefits to the local authority of renewable energy generation

There are clearly significant benefits to any local authority that engages in renewable energy generation, which are set out briefly below. A full discussion of these can be found in the APSE 'virtuous green circle' publication.

Community Leadership - Local Authorities are encouraged to 'lead from the front' and to provide an example to their local areas.

Carbon benefits – part of the burden of delivering the challenging targets contained within the Climate Change Act 2008 will inevitably fall onto Local Government.

Effectiveness and efficiency - Local authority expenditure is always under the microscope and value for money is constantly questioned. Renewable energy gives the local authority the chance to save money.

Economic benefits - Local authorities are also critically aware of the state of their local economies. The green agenda offers the best potential for growth at the present time so local authorities should be doing all they can to capture the maximum benefits from the green economy and positively stimulate the local supply chain.

Other green benefits - developing a 'holistic' climate change plan is recommended for local authorities but that requires some funds to resource. One way of 'locking in' the benefits to such a green programme is to use the surplus from any renewable energy projects to fund the wider green agenda work.

Income generation - Government is urging councils to be more innovative and energy generation means income generation is possible in an innovative way. It is heavily supported by the Government and does not involve the public being charged. As such, it is an important way to generate further funds.

4. APSE comment

APSE has consistently promoted both action to tackle climate change and the vital role of direct service teams in local government. Indeed, at a time of intense pressure on resources and cuts to local government jobs and services the expanding green economy presents a rare opportunity for councils to set a positive agenda.

The skills issue is significant as there are opportunities for council operatives to apply their existing skill sets to this growing area (for example in fitting, maintenance and repair work) and the likely growth in the sector overall could mean that they are in an ideal position to benefit from winning external work and creating a further income stream.

The benefits for all in developing the renewable energy sector in the UK are obvious and APSE welcomes this. The resources made available via the various financial incentives on offer will help support the actions envisaged and prompt those who wish to engage with this agenda early, to do so.

5. Additional information

APSE provides a range of services to support its member authorities to tackle climate change and tap into the opportunities presented by the green agenda. For more information on this, please email djohns@apse.org.uk

5.1 Available publications

'The virtuous green circle: creating a revolving fund for local authority solar energy', explores how local authorities can exploit feed in tariffs to generate real new income from solar photo voltaic panels. The publication explores how income generated from solar energy can help create a revolving fund to sustain renewable energy projects and generate much needed revenue. Click here for more details.

5.2 Previous briefings issued focusing on energy and green issues

The carbon reduction commitment (Jan 2009)

Environmental practices (Jan 2010) – This briefing outlines the responses received to a survey of APSE member authorities on their environmental practices.

Green jobs and skills (Apr 2010) – This briefing provides a summary of the consultation on the House of Commons report on 'Green Jobs and Skills'.

Energy and green issues – maximizing the economic and environmental case (Aug 10) – This briefing paper relates to energy and green issues and provides case studies, demonstrating significant financial and carbon savings.

APSE response to the CRC Energy Efficiency Scheme Order 2010 (Dec 2010)

CRC energy efficiency scheme update (Dec 2010) – This briefing provides an update on changes made to the CRC scheme announced at part of the Comprehensive Spending Review.

Feed-in Tariffs for small scale low carbon electricity (May 2011) – This briefing outlines the main points in the consultation paper on the review of feed in tariffs for small scale low carbon electricity.

The Renewable Heat Incentive Scheme (Jun 11)

6. Glossary of terms

A glossary has been included in order to provide members with a useful checklist of the often confusing and complex terms and acronyms relating to green energy.

Term	Definition
Anaerobic digestion	A series of processes in which microorganisms break down biodegradable material in the absence of oxygen used for industrial or domestic purposes to manage waste and/or release energy.
Biogas	A gas produced by the biological breakdown or organic matter in the absence of oxygen
Biomass	A renewable energy source produced from living or recently living organisms. Commonly made up of plant matter grown to generate electricity or produce heat.
(CEMEP) The Commission on Environmental Markets and Economic Performance	The commission was established in 2006 in response to the Stern Review on the Economics of Climate Change. Its remit was to advise Government on how the UK could make the most of the potential economic benefits of the transition to a low carbon sustainable economy.
(CHP) Combined Heat and Power	CHP generates electricity whilst also capturing usable heat that is produced in this process therefore avoiding the wastage of vast amounts of heat.
(CRC) Carbon Reduction Commitment	The Carbon Reduction Commitment is the UKs first mandatory carbon trading scheme, which aims to reduce the level of carbon emissions by 80% by 2050.
Deeming (FITs)	Used to estimate the amount of electricity that is exported to the grid.
Deeming (RHI)	Estimating what the installed system would be expected to deliver if the property were well insulated.
(EMS) Environmental Management System	An EMS refers to the management of an organisation's environmental programs in a comprehensive, systematic, planned and documented manner.
(FITs) Feed in Tariffs	Feed in tariffs are payments to energy users for the renewable energy they generate.
FIT degression scale	A reducing scale which means that from 2012 onwards new entrants to the FIT scheme will receive a lower FIT payment

	than those who joined at the start.
Grid parity	The point at which alternative means of generating electricity is at least as cheap as grid power.
(HHM) Half Hourly Meters	Special metres that capture electricity every half hour that have a data point back to the energy provider
(LATS) Landfill Allowance Trading Scheme	The scheme was introduced by the Government in 2003 to help the UK meet its landfill directive targets. The scheme penalises local authorities who exceed their given allowances for landfilling biodegradable municipal waste.
(OFGEM) Office of the gas and electricity markets	Protects consumers through promoting competition and regulating the monopoly companies which run the gas and electricity networks
(MCS) Microgeneration Certification Scheme	This scheme certificates microgeneration technologies used to produce electricity and heat from renewable sources. It covers both products and installation of renewable technologies.
(PPA) Power Purchase Agreement	A contract between two parties, one who generates electricity for the purpose of sale and one who is looking to purchase electricity. Rates for electricity are agreed upon within the contract.
(RED) Renewable Energy Directive	The renewable energy directive is a European directive which imposes stretching renewables targets for 2020 across the EU.
(RHI) Renewable Heat Incentive Scheme	Scheme introduced by the Government, due to commence in Summer 2011, which will provide long term financial support to renewable heat installations
Renewable Heat Premium Payment	This is an interim scheme worth £15 million to support household renewable heat installations before the RHI starts
(RO) Renewables Obligation	The RO is the main support scheme for renewable electricity projects in the UK. It places an obligation on UK suppliers of electricity to source an increasing proportion of electricity from renewable sources.
Solar PV	Solar Photovoltaics is a type of renewable energy that converts sunlight into electricity. Any surplus electricity can be exported back to the national grid and where there is a shortfall the amount required can be imported back.

Report Authors: Debbie Johns, Principal Advisor and Adele Reynolds, KTP Research Associate