

CAMBRIDGESHIRE HORIZONS

Agenda Item No: 13

Cambridgeshire Renewables Infrastructure Framework

To: **Cambridgeshire Horizons Board**

Date: **9th September 2010**

From: **Sheryl French**

Purpose: **To present the proposed draft scope of work for a Cambridgeshire Renewables Infrastructure Framework.**

Recommendation: **Horizons Board to note and comment on the proposed draft scope of work in section 2.0 and the next steps in section 3.0**

Contact: Name: Anna Keyes
Job Title: Project Manager
E-mail address: Anna.keyes@cambridgeshirehorizons.co.uk
Telephone No: 01223 714174

1.0 Background

- 1.1 The low carbon appraisal of the Long Term Delivery Plan identified the need for a Renewable Energy Infrastructure Plan. The Plan would act as a key part of the infrastructure evidence base for the county and also enable renewables to be planned and delivered effectively, producing a pathway to meet the need for renewables as part of a low carbon future.
- 1.2 The development of a Cambridgeshire Renewables Infrastructure Framework (CRIF) can support Cambridgeshire's transition to a low carbon economy through:
- Maximising Cambridgeshire's renewable energy potential. This study will look to identify where strategic infrastructure opportunities exist.
 - Developing the capacity and innovation of the ¹Clean-Tech Sector in Cambridgeshire, boosting Research and Development and informing Economic Development Strategies
 - Identifying and coordinating opportunities for renewable energy investment and delivery so making investment easier for a broad range of stakeholders including public sector, energy industry, institutional investors and the community .
 - Bring together in one place, the renewable energy infrastructure to support the growing demand for energy in Cambridgeshire, effectively making best use of the growth agenda to support existing stock.
- 1.3 In summary, the CRIF would provide Cambridgeshire with a robust holistic plan for renewable energy, to support the introduction of CIL and Carbon offset mechanisms and facilitate the delivery of increased renewable energy supply in Cambridgeshire. It could also become a 'blueprint' for developing Renewable Energy Infrastructure Plans that can be replicated in other areas.
- 1.4 The rationale for a Cambridgeshire Renewables Infrastructure Framework includes:
- Maximise the potential benefits to be drawn from the existing strategic alignment between Cambridgeshire County Council and Donarbon (waste operator) of a closed loop energy-waste-transport solutions for Cambridgeshire. This could become a means of delivering low carbon options for our major growth sites and for existing communities;
 - Serve as an evidence base for the proposed introduction of the Community Infrastructure Levy (or locally based tariff) by Cambridgeshire local

¹ The Innovas 2009 Report on the size of the Green Economy identifies alternative fuels, wind & geothermal renewables, and recovery & recycling as the largest green industries in the East of England. The green economy is recognised as a priority by the Greater Cambridge Partnership

authorities. The plan will identify the community-scale and strategic renewable energy Infrastructure needed to meet low-carbon development aims, allowing the collection of developer contributions as part of the funding solution for such projects;

- Inform ongoing development of the local development frameworks alongside other evidence based work , with the aim of creating the policy platform for renewable energy infrastructure investment;
- Inform the proposed Carbon Offset Fund, identifying opportunities for more flexible sources of low carbon infrastructure investment. It will also explore the opportunity of Community Energy Funds recently announced by Housing Minister Grant Shapps, which have strong links to the Carbon Offset Fund work;
- Complement the Low Carbon Development Initiative (LCDI), which is bringing forward and de-risking renewable energy projects for the market to invest in.
- Support the delivery of policy requirements both nationally and locally including Climate Change Act, Code for Sustainable Homes, Code for Public Buildings, Carbon Reduction Commitment

1.5 Cambridgeshire Horizons Board has agreed that Horizons will co-ordinate the work with Local Authorities. A draft scope of work is emerging and is set out below.

2.0 The Draft Scope of Work

2.1 To deliver a Cambridgeshire Renewables Infrastructure Framework the following four key steps are proposed:

- Setting a Baseline (energy demand and its geographic dispersion)
- Assessing constraints
- Identifying a Framework for Cambridgeshire
- Developing a Coordinated Plan

More detail on the process can be found in Appendix A

2.2 To deliver the baseline analysis the following will be required:

- Building on the Carbon Appraisal of the Long Term Delivery Plan, extend the analysis of energy (heat and power) demand from all new buildings required through the growth agenda (buildings, future electric cars, waste and water) up to 2031 to the whole of Cambridgeshire².

² The Carbon Appraisal of the Long Term Delivery Plan(CALTDP) June 2008 covered the Cambridge-Sub-Region.

- Establish the quantity of renewable energy required to support the existing and growing energy demand in Cambridgeshire. This includes both the growth agenda and demand from existing stock.
- Establish the geographical dispersion of energy demand (electricity and heat) across Cambridgeshire.
- Establish the carbon emissions associated with the energy demand across Cambridgeshire. Set this in context to the broader carbon footprint of Cambridgeshire and identify the scale and potential for CO2 reductions through the transition from fossil fuel reliance to renewable energy.

(Please note: To establish the baseline, evidence available, such as heat and power mapping, Local Development Frameworks, Local Infrastructure Studies, wind studies etc will be assessed. Where there are knowledge gaps, these will need to be identified.)

2.3 To identify the opportunities and constraints to the provision of renewable energy infrastructure the scope of works will cover:

- Assessment of sites across Cambridgeshire including those identified as part of the growth agenda (major sites, including urban extensions and developments of 100 homes or more) other opportunity sites and public land assets. This will identify strategic infrastructure options located in and around new growth, sites that can play a significant role supporting existing energy demand and also any public land opportunities.
- For each of these opportunities the most cost effective solutions for renewable energy generation and constraints will be identified such that policy requirements for carbon reduction can be delivered in the most appropriate and cost effective way.
- Link to the Making Assets Count work stream on public assets. This will identify opportunities for anchor loads, supporting the longer term viability of renewable energy infrastructure; as well as cash assets to support the delivery of local renewable energy schemes.
- Analysis of the institutional and policy barriers to delivering renewable energy infrastructure as well as community and commercial barriers. Identify a route map for overcoming them, for consideration by the Local Authorities and stakeholders.

2.4 The next step will be bringing the strategic framework together and a co-ordinating plan to knit the different areas of work together. This will include:

- Robust identification of infrastructure needs, to inform the Community Infrastructure Levy or similar standard charging system;
- Site specific infrastructure opportunities from Growth;

- Opportunities for commercially led schemes;
- Opportunities to use public assets to deliver renewables and as anchor loads;
- Proposals for overcoming barriers to bringing forward new renewable energy infrastructure;
- Identify the role, opportunities and barriers for the Cambridgeshire (and Peterborough) Clean Tech Sector to support the delivery of the CRIF.
- A pathway for communities to take forward renewable energy projects.

3.0 Next Steps

- 3.1 A budget of £80,000 is currently allocated in the Housing Growth Fund Revenue Budget for the Cambridgeshire Renewable Energy Infrastructure Plan. In addition, a bid to the Climate Change Skills Fund was submitted in May 2010 for additional funding and it is anticipated that allocation of this fund will take place September/October 2010.
- 3.2 It is important that the scope of works for this project is broken down so that work that require specific technical expertise can be procured but that where works can be supported by stakeholders and partners that this is identified.
- 3.3 A Project Steering Group will need to be set up to steer the work. This will need to include spatial planners, low carbon specialists and energy industry representatives.

4.0 Recommendations

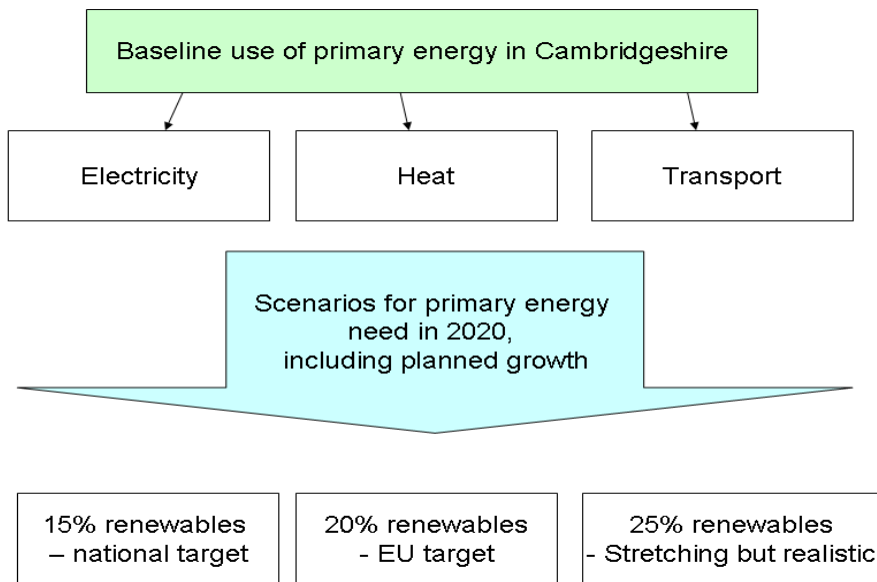
- 4.1 As cover sheet.

Appendix A

Process to develop a CRIF

1. The development of a Cambridgeshire Renewables Infrastructure Framework can be broken down into four key stages, as set out below:

I. Setting a Baseline



To help assess the baseline energy use, we will need to use a wide range of data provided by partners. A key piece of work that can inform and shape this element is Cambridge City's Decarbonising Cambridge Study, which has mapped heat need across the City. However, it is likely that there will be data gaps and so may need to commission some work to establish the baseline position for Cambridgeshire.

2. Assessing the constraints.



3. A Cambridgeshire Framework.

The work on a Cambridgeshire Renewables Infrastructure Framework (CRIF) will help inform the policy framework for the Local Authorities alongside other work such as infrastructure frameworks or other evidence base studies. Together the CREIP and local planning policies will provide the strategic context for Cambridgeshire formerly provided in part by the Regional Spatial Strategy. This locally-led partnership framework will be designed to attract green investment to Cambridgeshire.

The policies set by the Local Authorities will need to cover energy, heat and transport, although the former two are likely to have substantial overlap. The policies must be strong enough to attract renewable energy investment, whilst leaving sufficient flexibility for each Local Planning Authority to choose the approach that best reflects their area's needs.

4. A Coordinated Plan.

Community-led renewables projects	Commercially-led renewables projects	Public-asset based renewables projects
-----------------------------------	--------------------------------------	--