Mobilising Local Energy Investment

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Cambridgeshire has a nationally significant growth agenda.

Delivering 75,000 homes and 86,500 jobs in Cambridgeshire by 2030 including all associated infrastructure - is a challenge.

Realising the significant economic potential across Cambridgeshire needs effective facilitation to ensure that growth is not constrained by:

A) insufficient energy supplies
B) not delivering "green growth"
C) impacts on quality of life of residents
Our Journey

2008
Carbon assessment of Cambridgeshire’s Growth Plan

2010
Cambridgeshire’s Renewable Energy Framework

2011
Building Energy efficiency Strategy

2012
Agree MLEI Project, IEE

2013
Strategic Framework to facilitate investment into Cambridgeshire

2014
Energy Performance Contracting underway

2015
Local Authority Investment Fund Agreed

New business models needed to fund intelligent infrastructures

Fund investments pay for EIU

2025
Investment Into low Carbon economy

2030
£££
Vision: A step change in delivery of energy infrastructure in Cambridgeshire to support a low carbon economy

Goal: To develop the right financial and delivery framework to secure increased investment in energy infrastructure, using public sector assets to facilitate the initial investment

Objectives:
1. Set up a low carbon investment Fund(s)
2. Identify and set up the delivery mechanisms e.g. ESCo partner under the RE:FIT Framework
3. Deliver an investment programme of public sector and community energy projects of at least €17.03 million via the Fund and delivery mechanisms

Timescale: 36 months to August 2015
A Strategic framework to facilitate investment into energy infrastructure

FINANCE
- Prudential Borrowing Reserves
- Cambridgeshire Local Authorities:
  - Anchor
  - Investing
  - Supporting
- Cambridgeshire Low Carbon Investment Fund (£30-50m)
- Other Public Sector e.g. GfI, EIB
- Private Sector
  - Refinance:
    - Fund
    - Bond
    - Community Scheme

DEVELOPMENT
- Cambridgeshire Low Carbon Development Unit:
  - Programme Development
  - Corporate Finance

PROJECTS
- Delivery Partner(s)
  - Investment and return
  - Project development support (with fee)
  - Pipeline identification and project enablement
- Public sector
- Commercial
- Heat networks
- Community renewables
- Large scale renewables
- £2-6bn investment
- Return on investment from existing assets
- Retained energy spend in the local community
- Better buildings
- Lower operating costs
- Increased energy security
- Jobs and skills
- Carbon reduction
Achievements

<table>
<thead>
<tr>
<th>CURRENT METRIC</th>
<th></th>
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<tbody>
<tr>
<td>Capital Value Identified</td>
<td>€17,500,000</td>
</tr>
<tr>
<td>Phase 2 contracts signed</td>
<td>17</td>
</tr>
<tr>
<td>Cost savings (£/yr)</td>
<td>€1.8M</td>
</tr>
<tr>
<td>Energy savings (MWh/yr)</td>
<td>15,147</td>
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<tr>
<td>Carbon savings (T/CO2/Annum)</td>
<td>6,511</td>
</tr>
<tr>
<td>Renewable energy (kW)</td>
<td>13,597</td>
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Secured finance incentives and signed a construction contract for a 12MW Solar Park – enough to power 3,000 homes.

A multidisciplinary team with the skills, knowledge and capacity is now in place to support project development and investment into energy projects across Cambridgeshire. It includes technical (engineering skills primarily), financial, legal, procurement and project management skills and knowledge.
Lessons Learnt

• Having a strong Vision for Energy is sometimes not enough

• Big difference between an investible project and a potential project!

Project development costs are an investment risk which need paying

• Project drop outs do occur but not just because of the business case

• Setting up a Fund need not be complex.
Lessons Learnt

• Be open to change and adapting your project is essential for success

• You don’t know what you don’t know!

• Empowerment and a can-do approach go a long way.

Accessing finance is not the biggest constraint to delivery

Investment decisions are not only made on a business case
What next?

Cambridgeshire Energy Company

- Creating energy centres at new schools
- Developing libraries and Adult social care Buildings for EPC
- Work with transport on Renewable projects for or P+R sites
- Further solar PV Projects on the Farm or building estate
- Waste to energy
- New Housing Company – energy centres for new homes
- Trialling new storage technologies on schools and CCC assets

More schools and CCC buildings undertake EPC

Buying and selling energy locally

- Trialling new storage technologies on schools and CCC assets

Cambridgeshire Energy Company

- Creating energy centres at new schools

www.cambridgeshire.gov.uk
Future strategy

**Policy**
- connecting local plan policies, asset management plans, investment strategies

**Governance** e.g.
- Clear, accountable, transparent

**Data collection** e.g.
- Smart meters, buildings, road sensors

**Intelligent infrastructure** e.g.
- Resource efficient, low carbon, supporting local economic growth, affordable

**Licensing**
- buying and selling Local energy

**Different infrastructure types** e.g.
- water, energy, broadband, transport

**Social** e.g.
- how do people interact and how does this inform infrastructure needs

**Data modelling** e.g.
- when energy is needed, where and how much?
Challenges

- Finding new business models for renewable energy that stack up with no or little government finance incentive

- Supporting local Cleantech businesses to demonstrate new technologies that generate, save and store energy (SMART CITIES, City Deal, Living Lab)

- Matching local energy generation with local energy needs – keeping it local to our economy

- Licensing arrangements for buying/selling local energy

Any questions?
Interactive Discussion

What barriers do you face as an energy agency to

- working on finance initiatives in general
- in trying to bundle investment packages?

As a Local Authority, we deliver a variety of services to residents including adult social care, schools and education, supporting vulnerable families, disposal of household waste, managing the highways network, strategic spatial planning, economic development, minerals and waste planning, transport policy.

We have no statutory duty to deliver renewable energy or energy efficiency targets but we have an economic agenda to support our businesses and communities and to plan sustainable growth. We include energy investments within this wider responsibility.

If it had not been for grant from Intelligent Energy Europe in 2012, energy work from Cambridgeshire County Council would have stopped due to financial constraints on staffing in 2012.

There are no institutional barriers to work on finance initiatives but there is in terms of capacities, knowledge, skills and budget to work on finance initiatives related to energy.

The fragmentation of energy infrastructure due to privitisation in the 1990s in the UK means that it is technical and complicated to deliver energy projects.

A big challenge to bundling projects in the UK is due to investor confidence. In Cambridgeshire we wanted to bundle different technology projects together – investors don’t like this method as often they only want to invest in single technologies, with clear guidance on due diligence. This is a challenge for Cambridgeshire as we have a lot of small projects covering a variety of technologies. It means that bundling projects needs to happen within a single technology.
Interactive Discussion

What resources or additional help would enable you to achieve this?

Accessible supply of low cost debt e.g. EIB but without the target of a pipeline of £100 million before opening discussions!
A programme to engage politicians in the geo-politics of energy and the benefits of self sufficiency and how this benefits the local economy
Per capita renewable energy and energy consumption targets for local authorities?
Off-balance sheet solutions for some organisations to facilitate participation in energy efficiency and renewable energy generation.

What additional questions would you like answered?

It is generally accepted that finance dictates how projects are bundled together. Apart from standardising contracts, using framework contracts and procurement – what other suggestions are there to scale up investment?
Interactive Discussion

**What solutions have you found to any of these barriers, that you can share?**

Managed Service Arrangements to provide energy performance contracting as an off-balance sheet solution for organisations that can’t take on debt.

Setting up a Local Authority Fund to provide low cost finance to support energy efficiency projects.

**What resources have you found useful?**

Access to project finance, legal, insurance and risk specialists to advise on financing and contracting arrangements.

**What advice do you have for others working on these projects?**

See lessons learnt in my presentation

*Understand risk and who’s insurance covers which elements of contract works.*

*Proof of concept is important for senior managers and politicians*