The Cambridgeshire Renewables Infrastructure Framework: delivery pathways

A. Public Sector  B. Community Sector  C. Commercial Sector

The CRIF study has assessed the opportunities for Cambridgeshire to make its contribution to a national 28% onshore renewable energy target for 2030. The study has calculated that the arising investment opportunity attached to this level of deployment is over £2.3bn and up to £6bn in projects giving a return on investment of over 7%. The employment opportunities associated with this level of deployment are also great: up to 11,500 jobs.

In order to attain these targets and rewards all stakeholders - public sector, communities and business – need to play their part and work together. The CRIF provides the basis and leadership for localism in action with the public sector playing a central role in making this happen. It is a complex agenda that will require committed leadership and collaboration – with strong dependencies between commercial developers, and the public sector (local planning authorities in particular) and the communities that they represent. For the opportunities to be realised it will be essential that incentives are aligned to promote co-operation.

### A. Public sector pathway

The CRIF challenge is to achieve £320 million investment to generate at least 400GWh of electricity and heat.

**Broad estimate of progress so far:** 195GWh

#### Short term

**POLITICAL SUPPORT:** Set up overall support structure

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Identify funding sources for setting up support structure and secure funding.</td>
<td>It is imperative that funding is secured in order to establish resources within the local authorities to support this programme. It is understood that European technical assistance funding has been awarded which may be able to leverage further revenue and capital spending across the CRIF programme over the next [3] years.</td>
<td>Cambridgeshire County Council have made an application to the EU’s Intelligent Energy Europe Fund (IEE) to develop technical assistance to support retrofit and renewable/low carbon energy projects. Experience has been gained from applying for funding from sources such as the Technology Strategy Board (Cambridge City Council – Byrons Square Retrofit for the Future Project, Huntingdonshire District Council’s Green House, SCDC Rampton Drift?)</td>
<td>The public sector should continue to identify potential sources of funding for renewable/low carbon energy projects, with work shared across the public sector.</td>
</tr>
</tbody>
</table>

| A2. Public sector bodies to consider setting up a county-wide joint working group to enable knowledge, capacity and resource sharing between bodies. | A county-wide approach enables knowledge, capacity and resource sharing between local authorities. Ultimately, it ensures that the best opportunities are prioritised locally. | Possible existing activities include the Climate Change Partnership and Low Carbon Hub. Other existing groups that contain a wide range of public sector members? | A dedicated working group could provide greater focus on renewable energy locally. |

| A3. LAs to work with the Local Enterprise Partnership Cleantech Group to build capacity and knowledge transfer with other local authorities and across departments, and with | This will strengthen the skills, competencies and abilities of the public sector to deliver their own renewable energy projects, and to | The LEP is already seeking to establish a ‘Liaison team’, which would consist of senior officers from each local authority, along with key business | The ‘Liaison team’ would need to have a specific focus on renewable energy. |
a working group to lead development within each LA

provide support and enable policy changes in order to facilitate delivery of projects in the commercial and community sectors.

representational groups. This is intended to assist with their understanding of the LEP and their ability to contribute to the delivery of its objectives. The Green House project (http://www.greenhouseproject.co.uk/), a regional exemplar in good practice for retrofit and renewables, is a good example of the support the public sector can give to communities.

A4. Continue to build political and community support for renewable energy projects amongst key decision makers to obtain their commitment

This is crucial if changes to public policy are to be implemented, and policy certainty can be provided to support delivery of commercial projects.

The role of Executive Councillors as Climate Change/Sustainability Champions for example City Council’s Executive Councillor for Strategy and Climate Change, South Cambs have their Climate Change Working Group and Climate Change Portfolio Holder

Close liaison between officers and Councillors required given the changing nature of public policy related to climate change

**PLANNING: Develop and implement local planning policy**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5. Develop positive policies to encourage renewable energy development and climate change adaptation and mitigation</td>
<td>Development of new planning policy documents (e.g. Local Plans) should consider the development of positive policies related to renewable energy development, as well as wider climate change policies related to both mitigation and adaptation (for example levels of CO2 reduction exceeding Building Regulations Requirements, policies requiring connection to district heating where available) The draft NPPF explicitly requires local authorities to consider identifying suitable areas for renewable and low carbon energy. Therefore, public policy will need to be put in place to encourage priority renewable energy schemes to come forward. Many local authorities already have prescriptive targets in place. These should be formulated to suit specific renewable energy development objectives, and built into core development plans. For example, the requirement for new developments to connect into district heating networks, or provide the facility to connect in at a future</td>
<td>Current Local Plans/LDF documents – Merton Rule Policies North West Cambridge AAP – Policy setting high levels of the Code for Sustainable Homes and a requirement for decentralised renewable and low carbon energy Minerals and Waste LDF – policies to encourage the generation of energy from waste Cambridge City Council are currently developing a Carbon Management Plan and have also adopted a Climate Change Strategy, which sets a target of an 89% reduction in the city’s carbon emissions by 2050. They are also setting targets for new developments which go beyond Building Regulation minimums.</td>
<td>Develop evidence base and review policies as part of the current round of Local Plan/LDF reviews: Review of the Cambridge Local Plan – adoption due 2014 Implement, review and monitoring of these strategies</td>
</tr>
</tbody>
</table>
date provides one of the key building blocks necessary to deliver viable district heating schemes.

A6. Develop Infrastructure Plan for Community Energy Fund investment

Cambridgeshire should take the lead in demonstrating how they can set up an Allowable Solutions Policy within its Local Plan and develop the Community Energy Fund to ensure maximum renewable energy potential is realised. A regional approach to identifying priority projects in which to support through CEF investment will ensure that the best projects receive sufficient levels of funding to ensure they are delivered. A coherent, unified approach to renewable energy across the county will be achieved.

Reports have been published which consider the scale of a county wide Community Energy Fund, possible collection mechanisms and governance arrangements. Initial talks have been held with CLG to consider the possibility of a pilot Community Energy Fund

Further work will be required to investigate the governance arrangements for a Community Energy Fund ahead of any agreements with local authorities to participate. Work is also required to refine the process for identifying projects. LPA’s will need to develop policies within their local plans to establish the collection mechanisms for such a fund and ensure payments are directed towards local energy projects that will benefit local communities.

A7. Work closely with Government to provide greater policy and market certainty for the clean tech sector investment

Coordinate responses across the Local Cambridgeshire Authorities to respond to energy policy consultations

Market certainty is crucial to the commercial delivery of projects – a case in point is the reduced level of government support for the Feed In Tariff which has resulted in a large number of proposed PV schemes being aborted and the likely contraction of the PV industry in the UK.

The joint working group described above could be used as a forum for coordinating responses.

**CREATING DEMAND: Use public sector assets for RE generation**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A8. Consideration should be given to the role of renewable energy generation as part of the Making Assets Count Project, alongside high levels of sustainable design and construction being set for development on public sector land</td>
<td>Local authorities need to understand their renewable energy ‘baseline’. This includes both the actions they have already undertaken and helps to identify the next key steps to deliver new projects. Self-assessment could take the form of a ‘maturity matrix’ where each council maps their levels of preparedness and their preferences around delivery and procurement of renewable energy projects using their assets. A high level desktop survey of the assets associated with the priority projects identified should be carried out to determine the likely capacity that could be delivered. Opportunities should be prioritised according to their risk/reward profile, the timeframe that</td>
<td>Making Assets Count project which aims to reduce operating costs, consolidate estates, realise synergies, make buildings greener, and improve and integrate services. Clay Farm City owned land – progression of design competition to deliver high quality housing development with a minimum of Level 5 of Code for Sustainable Homes. Richard Newcombe Court – redevelopment of sheltered housing scheme to Level 5 of the Code for Sustainable Homes (CHS Group) Other projects include the Green House, retrofit of 13 market homes in</td>
<td>Continue to increase the standards of new public buildings being delivered as part of the Growth Agenda, building on lessons learned from past projects</td>
</tr>
</tbody>
</table>
they can be delivered in, and the capital investment required. Those projects with the most attractive business case may therefore not be identified as priority projects. Knowledge sharing across the working group will be important in achieving this. This will be followed by technical and financial feasibility studies of specific, priority projects to develop a sound business case for viable projects. It is realistic to expect that projects can be implemented within the short term if the right opportunities and delivery models are selected.

A9. Public sector organisations should give consideration to developing Corporate Renewable Energy Strategies/Carbon Management Plans linked to local/national targets for carbon emissions reductions. Consideration should be given to the development of specifications for all new public buildings which seek high levels of sustainable design and construction and the use of low carbon/renewable energy generation that go beyond Building Regulations.

This will help to drive forward renewable energy projects, ensuring a clear set of objectives. Remaining a step ahead of minimum government requirements will help to create the conditions in which Cambridgeshire is a leading county to invest. However, the government’s ambition is that all new domestic buildings will be zero carbon from 2016 and new non-domestic buildings will be zero carbon from 2019, so policy is already being tightened substantially in the short term. Whether or not Cambridgeshire goes beyond this – e.g. demanding even higher levels of fabric energy efficiency – is dependent on its level of ambition and the technical and financial viability of doing so.

Cambridge City Council – Climate Change Strategy and Carbon Management Plan
Implement the recommendations contained within the 2011 Cyril Sweet Report “Investing in Zero Carbon Public Buildings” commissioned by Cambridgeshire Horizons
Cambridge City Council has a policy requiring a minimum of BREEAM excellent for all new public buildings.
Cost Benefit Analysis of developing new public buildings to zero carbon ahead of zero carbon policy, published 2010, Cambridgeshire Horizons and Cyril Sweet

Implement, review and monitoring of these strategies. Develop clear project management strategies for renewable energy projects. Continue to assess corporate policies in light of changes to Building Regulations and the target of Zero Carbon Public Buildings by 2018

<table>
<thead>
<tr>
<th>DEVELOPMENT RISK: Develop district heating network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>A10. The CRIF Baseline Report and other studies (e.g. Decarbonising Cambridge) should be used as a starting point for those local authorities with potential for district heating to further investigate the viability of schemes. Reference should be made to the</td>
</tr>
</tbody>
</table>

of DH network, prospecting potential anchor loads, developing MOU/options agreements with building owners, and finally developing the business case for a scheme. Planning officers have a critical role to play in development management. Liaison with district heating network developers will help inform the proposed scheme, while planning policy can provide further support to securing district heating provisions in new developments through planning conditions or obligations. The latter could include the requirement for new developments to create on-site networks for connection into city-wide schemes at a later date, simply requiring developments to be future-proofed to do this, as described above, or securing a commitment to connect to a future network.

Cambridge development Northstowe is planned to have a community-wide district heating system served by a biomass Combined Cooling, Heat and Power system. Ernst & Young have been commissioned to carry out financial modelling of DH networks in Cambridge and St Neots, and AECOM are carrying out a technical feasibility of a DH network at St Neots. For further case studies, see District Heating Good Practice: Learning from the Low Carbon Infrastructure Fund, Homes and Communities Agency.

### Medium Term

<table>
<thead>
<tr>
<th>DEVELOPMENT RISK: Develop district heating network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>A11. Continue to progress district heating schemes where projects show good commercial and technical viability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PLANNING: Develop and implement local planning policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>A12. Apply adopted planning policies to new development proposals across Cambridgeshire</td>
</tr>
</tbody>
</table>
### FINANCE: Launch Community Energy Fund

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A13. Launch Community Energy Fund</td>
<td>The launch of the community energy fund linked to Zero Carbon Homes policy post 2016 will offer the possibility of a local fund for community energy projects</td>
</tr>
</tbody>
</table>

### Long term

**CREATING DEMAND: Use public sector assets for RE generation**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A15. Implementation of Corporate Policies for sustainable buildings standards</td>
<td>Public bodies should continue to strive to deliver exemplar building projects, including assessment of the role that such projects can play in helping to develop the local green economy and skills set</td>
</tr>
</tbody>
</table>

**Public sector drivers to work with:**

- Carbon reduction
- New revenue sources
- Maximised value of assets
- Demonstrating leadership
- Trialling, demonstrating and showcasing new technologies
- Energy bill reduction
- Resilience against future energy price increases
- Potential marketing material
- Carbon reduction
- Potentially attractive business case
- May assist with CRC targets, particularly inbuilding CHP
- Reduce fuel bills for public sector buildings
- Efficiency drive
- Meet planning obligations / BREEAM / CSH
- Required level of heat density
• Resilience against future energy price increases if renewably sourced fuel is used
• Central plant can be switched for alternative technologies in the future
• Save money and space on individual building plant
• New NPPF requires a local plan
• Allowable solutions
• Localism Act?
• Community Infrastructure Levy
• Community Energy Fund
• Point of leverage over private sector

Public sector barriers to mitigate/remove:
• Lack of in-house expertise/ knowledge
• Lack of alignment with core business
• Scale of challenge
• Constraints on spending
• Stock rationalisation
• Quality of asset management data
• Constraints on future development / restricts flexibility
• Policy uncertainty re: tariffs
• Is there a better deal tomorrow?
• Technical constraints e.g. roof condition
• Capital cost of networks and therefore creating a viable business case
• Price of heat or electricity may not be competitive
• Lack of required level of heat density
• Tension between long term lock-in and need to demonstrate best value to community
• Stock rationalisation
• Lack of know-how re: options appraisal, contract structures
• Lack of confidence in decision making
• Lack of internal resources
• Lack of networks to connect into – no critical mass
• Anchor loads location may not be optimal
• Existing plant doesn’t need replacement yet and therefore it may not be cost effective to connect
• Planning policy uncertainty – NPPF, Allowable Solutions, Zero Carbon Homes, Building Regulations, Community Infrastructure Levy
• Lack of resources and expertise – development control and policy planners
• Crash in land values – viability tests
• Limited / slow growth at present

Potential public sector interventions that need to make most of drivers and mitigate barriers (source material for actions tabulated above)
01. Using public sector assets for RE generation
02. Developing district heating networks
03. Changing public policy
**B. Community pathway**

The CRIF challenge is to achieve £782 million investment to generate at least 440GWh of electricity and heat

Broad estimate of progress so far: 0.1GWh

**Short term**

**FINANCE: Provide financial structuring**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. Provide local grant or repayable loan schemes for community renewable energy projects in Cambridgeshire (for both feasibility and implementation)</td>
<td>The biggest single barrier to unlocking the potential of community scale projects in England at present is the lack of funds for the high-risk initial feasibility phase of community projects. Community groups, even those who have formed constituted bodies, do not always find it easy to raise the up-front capital. Options for setting up a Cambridgeshire Capital Loan Fund should, we recommend, be actively considered. This could link to national scale funds such as the Community Generation Fund: <a href="http://www.nef.org.uk/communities/communitygeneration-fund.html">www.nef.org.uk/communities/communitygeneration-fund.html</a> We strongly recommend that Cambridgeshire LAs consider how they could play a role in overcoming this barrier, either through a Grant programme (such as the ERDF-funded programme being set up for communities in the South East of England), or some form of “contingently repayable loan” programme such as that proposed in the Community Generation Fund where if as expected the project moves through to planning then the community repays the feasibility loan plus a premium, but if it fails then the community is not left with a financial debt: the risk is therefore with the fund itself, although projects can be pre-selected on the basis of the likelihood of their proceeding. <a href="http://www.nef.org.uk/communities/communitygeneration-fund.html">www.nef.org.uk/communities/communitygeneration-fund.html</a></td>
<td>A potential opportunity is being developed in Upper Cambourne using S106 capital to partially meet the on-site renewable energy planning policy. The capital is to be used to install extensive PV arrays on community buildings and through a locally established community energy fund, to reinvest the feed-in tariff returns in other sustainable energy projects across the wider development. This could include funding feasibility phases of community projects.</td>
<td>Ensuring that LAs and the community and voluntary sector support and make the most of take-up of the Green Deal (expected from October 2012) – this is a major opportunity to improve building-by-building infrastructure. At a community level, parish councils may be encouraged to offer funding via the Public Works Loan Board for schemes with a sufficiently robust and attractive business plan. It may not happen often, but the opportunity to ring-fence funds arising from the local retention of business rates from commercial renewable energy installations could prove useful (it is understood that legislation is being finalised to bring this about).</td>
</tr>
<tr>
<td>B2. Local communities to build relationships</td>
<td>Particularly to encourage provision of loan</td>
<td>There doesn’t appear to be any current</td>
<td>Community groups, through the</td>
</tr>
</tbody>
</table>
with local banks/finance providers, with the leadership of local authorities and support from banks and finance providers themselves

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3. Collate a portfolio of relevant and applicable case studies</td>
<td>Building demonstration case studies of existing and developing projects as ‘exemplars’ for other community groups to gain inspiration and learning from.</td>
<td>Local examples of community scale renewable energy infrastructure are still rare. There are, however, many examples at the single building and domestic scale. Cambridge Carbon Footprint’s Annual Open Eco-House (with LA support) provides an excellent and very popular opportunity for people to visit homes with microgeneration measures for a guided tour. As people become more confident with renewables and they become more ‘normal’ then we are more likely to see community scale projects come forward.</td>
<td>Case studies of different types and scales of successful community renewable energy projects covering different technologies, governance mechanisms, finance methods etc should be made publicly available to community groups seeking inspiration. This type of information will need to be publicised and disseminated through a range of existing websites and sources to ensure it is widely used and provides the benefits to new and developing community projects.</td>
</tr>
<tr>
<td>B4. Produce renewable energy information packs to give guidance to communities on how to implement projects, and to point to other sources of information</td>
<td>An offline and online resource pack covering finance, governance/legal advice and signposting to relevant organisations and information.</td>
<td>This information is currently available from a number of national sources, but there is no locally based consolidated information pack for community groups.</td>
<td>The Centre for Sustainable Energy’s PlanLoCaL pack is a great place to start but more is needed to guide communities specifically in Cambridgeshire. Rather than replicating information already out there, the aim would be to signpost communities to key resources while providing specific information that is also relevant to Cambridgeshire e.g. about local grants and supporting organisations.</td>
</tr>
<tr>
<td>B5. Communities with skills and knowledge on delivering RE schemes share this with</td>
<td>Provide ongoing opportunities for communities to grow and learn through South Cambs’ Sustainable Parish Energy Partnership has run visits to exemplar sites</td>
<td>Existing communities can inspire and provide advice and mentoring to new</td>
<td></td>
</tr>
</tbody>
</table>

**CREATING DEMAND: Provide skills and resources**
| local communities | training and skill development on developing and delivering renewable energy projects. This may usefully begin at a smaller domestic scale or more broadly in introducing community scale sustainable energy issues. Once this is done, use of the CSE’s PlanLoCaL online and printed resource is available to really develop knowledge and commitment. Training on opportunities that might be available via ‘Neighbourhood Planning’ could be an important avenue for progress. | to provide inspiration and knowledge (e.g. the Hockerton Housing Project and the BedZED). | community groups as they develop and set up projects. This may require further events where communities can share experiences and insight, and to allow networking and collaboration across communities. |

### CREATING DEMAND: Engage with communities

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B6. Community outreach events and workshops to raise awareness of community-led renewable energy among communities</strong></td>
<td>Building on current work to raise the awareness of local residents on the benefits of renewable energy to both local community and individually e.g. through local community events. One of the potential outcomes of the process of engagement with the wider community will be to encourage greater involvement in local community groups and projects, increasing resources to help bring ideas through to reality.</td>
<td>The South Cambs Sustainable Parish Energy Partnership is now regularly assisting local village-based community groups in running Village Energy Days alongside a regular programme of workshops for SPEP member groups.</td>
<td>Similar events and energy days in the rest of Cambridgeshire, using a similar model to the South Cambs SPEP.</td>
</tr>
<tr>
<td><strong>B7. Engagement with and support to existing environmental/sustainability related community groups</strong></td>
<td>Engagement with and support to existing environmental/sustainability related community groups to establish and develop range of potential ‘demonstration’ renewable energy projects.</td>
<td>Even though not yet open, the Gamlingay Eco-Hub in South Cambs has attracted a lot of interest as a demonstrator of renewable energy technologies (PV, SHW and GSHP). Other new community buildings in the district are also now readily embracing these types of technologies and are generally happy to demonstrate them.</td>
<td>Building a database/network of existing community groups to establish contact (if it doesn’t already exist) to develop opportunities to disseminate experience through case studies and events etc.</td>
</tr>
</tbody>
</table>

### CREATING DEMAND: Build partnerships

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B8. Support and involvement: build relationships with local media channels and using these as methods to raise awareness, support and trust in the local community</strong></td>
<td>The local media can prove to be a useful partner in raising the profile of projects and encouraging participation. Local newspapers, radio stations and community and parish</td>
<td>The South Cambs Sustainable Parish Energy Partnership provides template booklets. These are laid out over eight pages and contain useful generic</td>
<td>Contact with local media channels such as local newspapers and local radio stations to advertise community energy events and to provide news stories.</td>
</tr>
</tbody>
</table>
| community newsletters can all be used to communicate to local residents about a proposed renewable energy project, ideally at the early stages of project development to encourage wider engagement and support from the community. Other media sources such as television or through websites, emails, blogs, and social networking sites such as twitter and Facebook can be used alongside media engagement to encourage ongoing community support and input throughout the development of a project. Depending on the level of engagement needed and stage of project development it can be beneficial to build a relationship with the producers of the local radio stations and arrange to give regular updates on a project. This kind of engagement with the media can be quite time and resource intensive and may require specific skills, and it may also be necessary or useful to partner with organisations who can offer free or low cost support to community groups in obtaining media support or developing skills in this area. information and illustrations alongside significant space and opportunity for local volunteers to customise the content with local images, case studies and contacts that bring the booklet alive locally – easily distributed with Parish magazines or similar. South Cambs SPEP has also run a workshop and offered training on the use of social media, but take-up has been limited. about local renewable energy projects. Evaluate potential of different media channels as a means for communities to obtain support from local residents and to raise awareness etc

| B9. Engage with building owners to agree possible lease arrangements for renting roof/land for renewable energy projects | One method for community groups seeking to develop local renewable energy projects in their local area is to install systems on sites owned either privately or by the local authority. This method will require partnership with the owners of local buildings and land in order to develop agreements for the use of land, roof space or buildings. For installation of renewable energy on buildings such as church’s and schools it is necessary to build relationships with the building occupants (e.g. vicars, head teachers) who will need to be willing to lease roof, land or building space in return for financial and/or environmental benefits. The benefits of this approach to community renewable energy can include:
- community groups can help schools or community building owners to find funding through working with local suppliers or utility companies;
- community homeowners or building occupiers can benefit from electricity
There are a few examples community renewable energy projects being undertaken with the consent of building owners, e.g. community village halls, schools etc.

Local Authorities in Cambridgeshire and Parish Councils could support communities looking for ideas for potential renewable energy projects by contacting local building owners to establish interest in their land or roof being used for installation of renewable energy schemes. A database of potential sites could be developed for communities to use when investigating ideas for potential projects. |
produced on site;
- community group can obtain income through FiT and sale of electricity to the grid; and varying level of ownership over renewable energy schemes is possible with building owner fully owning, part owning or providing ownership to community group. Revisions to the feed-in tariff have limited the potential of this approach. Options around the Renewable Heat Incentive for community building could also usefully be explored.

| B10. Support and involvement: Establish partnerships with local suppliers and installers to draw up arrangements for community groups to obtain discounts for the bulk purchase of equipment or fuel | Engaging and partnering with local suppliers and installers of renewable energy can provide opportunities for community groups to agree discounts for the purchase and/or install of equipment or fuel, for example through a bulk purchase scheme whereby a reduction in the cost per system is received once a certain volume of installations is reached or through a number of referrals. Through these partnerships with installers, community groups can provide discounts to individual households through the purchase and/or distribution of renewable energy systems or fuel, through for example:
  - discount through a bulk purchase scheme
  - discount through certain number of referrals guarantee certain level of demand |

The South Cambs Sustainable Parish Energy Partnership has had some useful success in supporting bulk-purchase PV schemes set-up and driven by local volunteer groups.

| Local renewable energy suppliers contacted to establish their offers with regards to bulk purchase of equipment and/or fuel. This information could be advertised to community groups for consideration of potential projects and when choosing suppliers. |

| B11. Develop subcommittees to take forward energy projects within the local community | Parish councils can prove an important partner to community groups in the development of renewable energy projects if they are receptive and supportive towards the project. In particular, community groups can take advantage of the formal structures and governance of parish council to obtain funding etc and parish councils are able to establish a subcommittee to take forward energy projects. Experience suggests that parish council support is often more limited than |

The South Cambs SPEP has parish council links as a central part of its structure. Volunteer groups work with and report to parish councils to varying degrees – some councils feel able to show more direct commitment than others (often down to available resources and direct councilor involvement).

| Local Authorities to encourage development of subcommittees within their Parish Councils to take forward renewable energy projects, and provide guidance about best practice in supporting community groups |
### Medium Term

**PLANNING: Develop and implement local planning policy**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What's already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B12. Encourage the development of new community groups in areas with no existing community leadership, and identify new projects for community groups to take forward</td>
<td>Engagement with local residents to establish and develop new community groups to take community renewable projects into the mainstream.</td>
<td>The South Cambs Sustainable Parish Energy Partnership has achieved a good success rate with attracting interested groups by providing a full menu of support with very few strings attached.</td>
<td>Wider reach of engagement activity through Parish Councils and other local representatives.</td>
</tr>
</tbody>
</table>

| B13. Set up a community advice network for existing and new projects to share their experiences | Advice network to provide communities with support from ‘expert’ individuals and organisations for interactive advice and information on set up and delivery of projects. | The South Cambs Sustainable Parish Energy Partnership has had some success with this approach at its regular workshops but the best lasting resource in this crucial area is via CSE’s PlanLoCaL publication and website. Making groups aware of this resource has proved particularly beneficial in passing on advice and information on the set-up and delivery of projects. | Use of existing community networks e.g. Low Carbon Communities Network or Transition Network etc for communities to gain knowledge from success stories and experience. |

---

**FINANCE: Provide financial structuring**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What's already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B14. Provide access and guidance to the Community Energy Fund (when established)</td>
<td>The concept of the Community Energy Fund (CEF) is to put in place a fund that will provide a means to deliver carbon reduction projects that allow developers to meet the requirements of the Zero Carbon Policy, taking the responsibility to identify and directly invest in projects to mitigate emissions off the shoulders of developers. We recommend that Cambridgeshire should take the lead in demonstrating how they can set up an Allowable Solutions Policy within its Local Plan and develop the Community Energy Fund to ensure maximisation of community benefits through a CEF. Within this, decisions need to be made about how communities can access the fund for money to support their schemes.</td>
<td>Cambridgeshire is investigating the potential for a Community Energy Fund.</td>
<td>Continue development of CEF.</td>
</tr>
</tbody>
</table>
### PLANNING: Develop and implement local planning policy

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B15. Communities engage with Neighbourhood Planning to deliver the Cambridgeshire-wide renewable energy planning policies within Local Development Frameworks</td>
<td>Neighbourhood Planning, through the Localism Bill, will enable communities to provide their own input into the development of local renewable energy schemes. Neighbourhood plans and/or development orders can provide specific support to schemes which have community backing. A higher level of consistency of planning policy across the local authorities in Cambridgeshire could help lower the barriers communities face in obtaining planning permission and the provision of clearer information for communities on the key policies, likely changes and sources of key documents can reduce the time and resources needed by groups.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Securing finance for community energy projects can be particularly challenging. Grant funding tends to be short-term and an exit-strategy is required. Funders often have specific priorities for types of activity they want to fund and grant funding is often oversubscribed, particularly with the reduction in number of grant programmes we have seen in the current economic climate. There are a greater number of voluntary and community organisations looking for funding hence increased competition. Applying for funding takes time; every funder requires tailored application and often requires providing evidence of impact of money (research and reporting). It can take 2–6 months to get a decision depending on funder and level of grant. This is therefore time consuming with no guarantee of success. Some funders prefer to offer contracts or loans rather than grants.

**Community sector drivers to work with:**
- Availability of local/regional grants specifically for renewable energy projects (lowers competition by focussing on specific area so likelihood of communities obtaining funds is higher)
- Availability of grants/funds or contingently repayable finance for feasibility stages of projects, where loan is only repayable when project reaches planning stage and is “bankable”
- Support and advice available on how to go about obtaining loan/bank finance i.e. how to present proposals and how to persuade banks, what are banks looking for (e.g. security), and which banks/lenders are most open to renewable energy project lending.
- Support and advice in setting up Power Purchase Agreements with energy suppliers
- Support and advice available about legal structures and governance arrangements most suited to the different types of finance option.
- Support and advice available on raising funds through shareholds and how to develop a share issue.
- Information on the variety of sources of finance available, including the Local United community affiliation scheme.
- Available sources of independent and free finance advice and information (e.g. NCVO, PlanLoCaL), possible subsidized information packs/books specific to community renewable information e.g. NVCO publications.
- Availability of information to enable community groups to make well informed decisions about most appropriate legal structure for their group and proposed project types.
- Available sources of independent and free advice and support in setting up legal entities.
- Consistent local renewable energy policy frameworks across Cambridgeshire
- Support from Local Authorities for development of community renewable energy projects
• Support from local residents through early consultation and community engagement to raise awareness of benefits

**Community sector barriers to mitigate/remove:**

• Lack of sufficient finance resource or limited grant funding available or high competition for grant funding
• Limited or no capital available to invest and/or difficulty obtaining investment from local residents or partners
• High level of liability/risk of finance used for feasibility stage of projects if project doesn’t generate expected levels of income or does not reach planning stages
• Challenges in obtaining finance i.e. due to lack of sufficient knowledge or understanding on finance options
• Difficulty to successfully obtain loan finance from banks
• Lack of time or resources to source and apply for funding or maintaining cashflows
• Particularly grant applications and setting up and managing share issues
• Lack of sufficient knowledge or understanding on suitable governance arrangements
• Lack of time or resources to investigate and set up legal entity
• Difficulty obtaining planning permission
• Lack of support from local residents and community

**Potential community sector interventions that need to make most of drivers and mitigate barriers (source material for actions tabulated above)**

01. **Grant/Loan** - Local grant or contingently repayable loan scheme for community renewable energy projects in Cambridgeshire (feasibility and implementation)
02. **Fund** - Establish Community Energy Fund
03. **Finance Partnerships** – Build relationship with local banks/finance providers to encourage provision of loan finance for community-led renewable energy projects
04. **Information Resources** - Community energy information pack (offline & online) covering finance, governance/legal advice and signposting to relevant organisations and information
05. **Partnership with Suppliers** – Establish potential for bulk buy/discount schemes with several local suppliers of renewable energy
06. **Advice Network** – Community advice network with available support from ‘expert’ individuals and organisations for interactive advice and information on set up and delivery of projects
07. **Case Studies Information** - Building demonstration case studies of existing and developing projects as ‘exemplars’
08. **Training** – Skills and training opportunities for communities on developing and delivering renewable energy projects
09. **Advice Network** – Community advice network with available support from ‘expert’ individuals and organisations for interactive advice and information on set up and delivery of projects
10. **Leadership & Engagement** - Set up of new community groups to take forward projects in areas with no existing community leadership
11. **Partnership with Parish Councils** – Engagement with all Parish Councils to encourage development of ‘energy’ subcommittees
12. **Planning Policies** – Establish Cambridgeshire-wide renewable energy planning policies to be integrated within Local Development Frameworks
13. **Engagement & Support** - Engagement with and support to existing environmental/sustainability related community groups to establish and develop range of potential 'demonstration' renewable energy projects
14. **Community Outreach** – Annual community outreach events and workshops to raise awareness of community-led renewable energy among communities
15. **Media Engagement** - Engagement with local media to raise awareness of demonstration projects being developed
16. **Engagement with Building Owners** – Engagement with owners of local community buildings on potential for renewable energy
### C. Commercial sector

The CRIF challenge is to achieve £1.2 billion investment to generate at least 1300GWh of electricity and heat

Broad estimate of progress so far: 380GWh

#### Short term

<table>
<thead>
<tr>
<th>Renewable energy supplier opportunities</th>
<th>Description</th>
<th>What's already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1. Suppliers to work with joint working group to help develop a clear set of objectives</td>
<td>Collaboration on this will ensure that commercial objectives for the delivery of renewable energy projects are addressed when public policy is formed.</td>
<td>The Low Carbon Development Initiative is already underway in Cambridge city and Hunts, its purpose being to overcome the early stage development risks which may affect projects.</td>
<td></td>
</tr>
<tr>
<td>C2. Suppliers to create close working relationship with representatives from different public sector departments</td>
<td>This is particularly important for the development of longer term projects such as district heating projects. Public sector understanding of the requirements for commercial viability of projects will be critical to their success.</td>
<td>Local Enterprise Partnership Cleantech Group and Cambridge Cleantech already provide a valuable potential forum for this to happen – their objectives need to be extended to enable this to happen.</td>
<td></td>
</tr>
<tr>
<td>C3. Suppliers to share information with public sector and communities</td>
<td>In order to build a common understanding of the commercial realities of developing renewable energy projects, it will be important for private sector organisations to share information on the issues being faced and to build trust.</td>
<td>See above.</td>
<td></td>
</tr>
<tr>
<td>C4. Suppliers to partner with public sector and communities to create constructive dialogue between sectors e.g. forums, workshops, clear community benefits</td>
<td>In order to address community resistance to renewable energy schemes, long term partnering arrangements may be required to establish an appropriate balance of risk and reward for all stakeholders.</td>
<td>See above.</td>
<td></td>
</tr>
<tr>
<td>C5. Suppliers to establish best practice protocols for development of renewable energy in Cambridgeshire</td>
<td>The commercial sector should proactively develop best practice protocols to the development of renewable energy projects such that tangible community involvement, buy-in and benefits can be realised.</td>
<td>See above – plus there are many well-established national renewable energy organisations e.g. REA who could provide useful input into this.</td>
<td></td>
</tr>
<tr>
<td>C6. Suppliers to appraise opportunities identified through CRIF, leading to the development of projects in the region</td>
<td>The CRIF programme has analysed the opportunities for renewable energy development across the county. This should form a good basis for the detailed appraisal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---
and development of projects. The policy incentives are creating the opportunity for commercial delivery of renewable heat and power projects across a range of scales and applications.

**C7. Suppliers to deliver projects procured by the public sector**

The commercial sector will be pivotal for delivery of projects procured by the public sector since these skills and business models are unlikely to exist 'in-house'. Opportunities will include the design, supply, installation, commissioning, operation and maintenance of renewable energy schemes. The commercial sector may also be called upon to finance projects through a concession or energy services agreement.

**C8. Suppliers to liaise with public sector to help identify opportunities for Community Energy Fund development**

Private enterprises will be well placed to identify opportunities for local investment by the Community Energy Fund. They can originate eligible projects, take them through the qualification process and ensure that carbon reductions are delivered in line with zero carbon requirements.

### Developer opportunities

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in Cambridgeshire?</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>C9. Developers to work with local authorities to explore delivery options through Allowable Solutions payments or CIL or CEF</td>
<td>The private sector should work with the public authorities to establish the most appropriate delivery mechanisms for allowable solutions in Cambridgeshire. This could include different approaches to the delivery of small scale projects and larger scale communal energy (e.g. district heating).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C10. Developers to establish funding models and develop innovative delivery mechanisms</td>
<td>Commercial property developers should work to establish new funding models for the delivery of on-site clean energy. This might include, for example, the use of the Feed in Tariff or Green Deal to part-fund technologies over the long term.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Green Deal retrofit opportunities

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>What’s already happening in</th>
<th>What more is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Local authorities and Green Deal providers lobby government for Green Deal measures to be included as an Allowable Solution

Green Deal providers offer retrofit measures as part of the allowable solutions framework. The Joint Working Group, proposed earlier in this report, would be an ideal platform for coordinating responses at a regional level.

### Local authorities support the delivery of Green Deal opportunities

Potential benefits to local authorities are likely to include new sources of revenue to deliver energy efficiency retrofits, help to reduce fuel bills for local residents and businesses, opportunities for local economic and physical regeneration, and support for the maintenance and generation of local jobs and skills. Local authorities can:

- Provide the Green Deal directly to their local residents and businesses, co-ordinating finance and delivery
- Work in partnership with commercial Green Deal providers and community partners to deliver and facilitate delivery
- Promote the Green Deal by acting as advocates locally

Huntingdonshire, South Cambs and Cambridge City are working together to developing a local approach, and working with key local organisations, and the Energy Saving Trust.

### Medium term

#### Renewable energy suppliers

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C13. Establish model RE projects that demonstrate best practice community engagement</td>
<td>Application of best practice protocols (e.g. for wind energy planning and development) should lead to model projects being developed that demonstrate the preferred way to do business in Cambridgeshire.</td>
</tr>
<tr>
<td>C14. Establish public-private-partnerships (PPP) to deliver district heating</td>
<td>In the medium term, commercial organisations (e.g. ESCOs) should partner with the public authorities to deliver district heating in the key areas of opportunity, especially in Cambridge and Huntingdon.</td>
</tr>
<tr>
<td>C15. Review existing scheme potential and issues e.g. land/asset ownership, technical issues</td>
<td>The private sector is well placed to resolve many of the detailed technical issues regarding the extension of existing low carbon schemes.</td>
</tr>
<tr>
<td>C16. Take forward specific renewable energy opportunities identified as viable</td>
<td>The policy incentives should continue to drive the commercial delivery of renewable</td>
</tr>
</tbody>
</table>
heat and power projects across a range of scales and applications.

C17. Operate, maintain and repower renewable energy schemes

Private sector ESCOs should continue to support the successful operation and maintenance of renewable energy assets. They should also identify opportunities to repower schemes once the original plant nears the end of its useful life. In many cases this can lead to an improved performance as plant is replaced with new technologies that are more efficient or have greater generating capacity.

C18. Deliver long term infrastructure in partnership with the public sector

Many large scale projects such as district heating can take 20 years to develop.

<table>
<thead>
<tr>
<th>Developers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>C19. Deliver on-site ‘carbon compliance’</td>
</tr>
<tr>
<td>C20. Deliver allowable solutions</td>
</tr>
<tr>
<td>C21. Establish sales and marketing strategy</td>
</tr>
<tr>
<td>C22. Mainstream partnerships between community and commercial developers</td>
</tr>
</tbody>
</table>

**Commercial sector drivers to work with:**

- Investment risk controlled, especially early stage project development risk
- Revenue potential maximised
- Investment required to support zero carbon targets
- Opportunities for flexible offsite allowable solutions
• Long term development projects provide a hedge against uncertain national policy
• Community Energy Fund
• Makes use of existing assets to potentially minimise carbon abatement costs and improve yields
• Reduces development risk and cost e.g. planning
• Less disruptive if infrastructure works not required e.g. district heating
• Projects de-risked by public sector
• Generate community support
• Secure project opportunities
• Secure planning consent
• Develops local supply chain

Commercial sector barriers to mitigate/remove:
• Cambs not seen as particularly investor friendly
• No community buy-in
• Inadequate supply chain
• Investment risk too high
• Lack of commercially viable projects
• Planning stage is risky, complex and resource consuming
• Lack of economies of scale for smaller scale projects
• Difficulties in obtaining project finance
• Dependence on property development and construction market
• Uncertainty of government policy
• Competition against national allowable solutions
• Plant or infrastructure may be obsolete
• Limited knowledge of opportunities relating to existing schemes
• Engineering may be more complex than starting from scratch
• Potential land or asset ownership complexities
  • Tendering process
• Negative community perceptions
• Lack of social contribution/engagement
• Currently lack of local job generation

Potential commercial sector interventions that need to make most of drivers and mitigate barriers (source material for actions tabulated above)

01. Create suitable commercial investment conditions
02. Using Cambridgeshire’s Growth Agenda to facilitate RE schemes
03. Enhancing or extending existing low carbon energy schemes
04. Establishing partnerships with public sector and communities