

Appendix A - Cambridgeshire Community Energy Fund Stage 2
Final Report. Element Energy (January 2012). Executive Summary

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***Cambridgeshire
Community Energy
Fund***

Stage 2

Final report

for

**Cambridgeshire
Horizons**

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Element Energy Limited
20 Station Road

Cambridge CB1 2JD

Tel: 01223 852499

Fax: 01223 353475



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Authors

This report has been prepared by a consultant team of:

Element Energy

Manches LLP

The Landscape Partnership

Kinetix Corporate Finance

For comments or queries please contact:

ian.walker@element-energy.co.uk

Tel: 0330 119 0981

1 Executive Summary

1.1 Background

The UK government is committed to challenging and binding targets for the reduction of greenhouse emissions by 2020 and 2050. Achieving these targets will require aggressive action across all sectors of energy use, to improve the efficiency of energy use and decarbonise the energy supply. As a key part of these efforts, the pressing need to limit the additional CO₂ emissions resulting from new development has been recognised. In response, the zero carbon policy for new homes and non-domestic buildings has been devised.

The current proposals for the zero carbon policy, which is due to be introduced for new homes in England and Wales from 2016 and for non-domestic buildings from 2019, has been a number of years in the making. The early incarnations of the policy proposals envisaged a requirement for new development to be net-zero carbon with respect to CO₂ emissions from total energy usage. Over time, a body of technical evidence has developed that demonstrates the technical difficulty and prohibitive costs of achieving this standard on a broad range of development types. As a result, the definition of zero carbon has evolved to include a requirement for onsite CO₂ emissions reduction, which must be kept below a mandatory threshold, and a requirement for residual CO₂ emissions to be balanced by carbon savings delivered by investment in carbon reduction projects elsewhere.

The potential role for the community energy fund in the decarbonisation of new growth has grown out of this policy evolution and specifically the need for developers to invest in CO₂ reduction projects to mitigate the emissions arising from their developments. The concept is that rather than the developer identifying and directly investing in carbon reduction projects, roles that are well outside their core business and expertise, they would make a payment into a fund which would take on the responsibility for delivering the CO₂ reduction. The developer payments, determined on the basis of the amount of CO₂ to be offset and a price for carbon reduction (£/tCO₂), would provide the capital for the fund's investments.

The opportunity to establish a public sector-led community energy fund (CEF) to manage these developer payments is highly attractive to local authorities and other local public sector stakeholders. Such a fund would be a not-for profit entity with an investment strategy driven by carbon reduction goals rather than by financial returns. The CEF provides the opportunity to:

- Ensure that the investment raised from development for carbon reduction is invested locally and for the benefit of the local economy.
- Influence the delivery of attractive carbon reduction projects that are not being brought forward by the private sector alone, due to specific barriers that the CEF funding could help to overcome.
- Invest in projects that deliver wider benefits to the local community and economy, such as generating employment in the low carbon energy sector.
- Leverage additional private sector investment into delivery of carbon reduction projects in the area.

The CEF concept also has attractions to developers, as it provides a route to compliance with zero carbon policy without distracting from their core business, while also providing a

greater degree of certainty about the costs associated with achieving the CO₂ reduction obligations.

Cambridgeshire Horizons and the Cambridgeshire local authorities have been actively investigating the potential of establishing a community energy fund in Cambridgeshire for a number of years. An initial feasibility study performed by Element Energy, Manches LLP and Terence O'Rourke, was completed in late 2010. This report included an in-depth analysis of the planning policy required to impose collection of developer payments into a fund and considered the options for how a local authority-led fund might be constituted. The study also considered the types of investments that the fund might make.

This Stage Two report has been commissioned by Cambridgeshire Horizons to provide greater detail on key aspects of the fund structure and operation, particularly in light of changes to the zero carbon policy that have been announced since the first stage report was completed. In particular, the fund structure and governance, the size of the fund, its potential investments, carbon reduction impacts and means of measuring performance are considered in greater detail. Further work on defining the mechanism for collecting developer payments has also been done, in close consultation with the local authorities and with Department of Communities and Local Government.

The zero carbon policy continues to evolve and policy uncertainty remains. During the course of this study, the Zero Carbon Hub published its proposals for an 'Allowable Solutions Framework', which sets out how the developer payments into carbon reduction projects by way of Allowable Solutions might be managed. These proposals include the concept of community energy funds as one of a number of organisations that would make up a market of Allowable Solutions providers from which developers could select their preferred provider. These proposals have potential implications for development of a community energy fund in Cambridgeshire and are summarised in the following section.

1.2 The Allowable Solutions framework proposals

Allowable Solutions is the term used to describe the range of carbon reduction initiatives that developers might invest in to meet their remaining carbon reduction obligation under zero carbon policy once the target for on-site CO₂ reduction (known as the Carbon Compliance level) has been met. These Allowable Solutions could include further measures taken on-site, near to the site or off-site (i.e. further removed from the development).

The Allowable Solutions are the final part of the zero carbon definition to be assessed in depth. In July 2011, the Zero Carbon Hub put forward proposals for a consolidated Allowable Solutions framework, which was developed in consultation with industry and sought to set out what a workable framework for managing developer payments into Allowable Solutions might look like. The framework recommendations have been drawn up to inform government policy development and are expected to be the subject of a consultation in late 2011 / early 2012.

The key features of the proposed framework that have implications for the development of a CEF in Cambridgeshire (and elsewhere) are summarised below:

- Local authorities to have the opportunity to develop Allowable Solutions policies in their Local Plan. The existence of such policies will ensure that Allowable Solutions investment is directed to projects identified in the Local Plan.

- Even in the case that the local authority establishes a CEF, developers will have the opportunity to seek out the best value Allowable Solutions, via the CEF or third-party Allowable Solutions providers that are expected to emerge in competition. Provided that the local authority has appropriate policy in place, however, Allowable Solutions projects will have to be selected from the Local Plan, even if delivered by a third-party provider.
- In the case that a local authority does not develop Allowable Solutions policies, it is envisaged that there will be a market of private energy funds vying for the contracts to provide Allowable Solutions to developers. In this case, the private energy fund will not be restricted to developing projects in the local area and it is likely that investment will flow outward to projects identified in the national list.
- Local CEFs and third-party Allowable Solutions providers will be in competition on the basis of the Allowable Solutions price they can offer to developers. It is intended that the price that can be charged will be capped at a nationally imposed price ceiling.
- A key part of the proposed framework is a national body to hold Allowable Solutions funds. This would be a repository for all Allowable Solutions payments. Hence, in this framework the CEF would not hold its own funds. Developer payments would be made to the national fund and the CEF would be issued a credit note as evidence of the funds available – the CEF would use this credit note as a means of arranging further project finance.
- Closely aligned to the national fund would be an Allowable Solutions Verification and Certification Scheme. This body would control investment flow through the national fund – issuing credit notes to energy funds, providing certification to developers that they have made an appropriate payment and triggering release of funds to Allowable Solutions projects when certain milestones have been reached.

While the framework proposals are aligned with Cambridgeshire’s objectives in a number of aspects, notably the ability to use local planning policy to retain investment locally, the existence of community energy funds and the potential for neighbouring local authorities to collaborate in CEFs so as to pool resources and deliver larger scale projects, there are also some concerns. Key among these are the lack of local control over the fund, which raises questions over how the CEF will finance its own operations and whether the CEF will be in a position to reinvest financial returns on its investments, concerns over the competition with third-party providers and whether this will hamper the CEF’s ability to invest in projects that deliver wider public good, and uncertainties over the extent of the fund’s liabilities, particularly in the event that it does not deliver the carbon saving it has contracted for with developers, as this could influence investment strategy and might not be consistent with delivery of additionality.

Following discussion of the Allowable Solutions framework document with Cambridgeshire Horizons and the local authorities, the decision was taken to progress development of proposals for a local community energy fund that acts as a local fund-holding body. This could be used to influence the policy direction during the forthcoming consultation.

Many aspects of the Allowable Solutions framework proposals put forward by the Zero Carbon Hub are consistent with a local fund-holding and are helpful in understanding how an overall framework might operate. These aspects of the proposed framework have informed the thinking on development of the Cambridgeshire CEF.

1.3 Main conclusions

This study has focused on four key aspects of the development and operation of a community energy fund, as follows:

- Collection mechanisms – analysis of potential means of collecting developer payments into a local fund.
- Structure and governance – analysis of options for the corporate governance of a community energy fund, its membership, management and operational control.
- Scale of fund and investments – forecasts of the size of the fund and assessment of the kinds of investments it might make and ability to deliver carbon reduction through those investments
- Carbon accounting – assessment of the requirements and possible methodologies for measuring and verifying the carbon reduction delivered

The findings of the work, summarised below, have been developed through detailed desktop research and analysis. Critical aspects of the implementation of a fund in Cambridgeshire have been tested through consultation with local stakeholders, in particular local authority planning and legal officers. The study has also been informed by consultation with Department of Communities and Local Government on the evolving policy framework.

The conclusions of this report have been prepared on the basis that the Cambridgeshire Community Energy Fund will hold its funds locally. The case for a community energy fund as the best vehicle to deliver carbon savings for the benefit of local communities will need to be made in the context of the forthcoming consultation.

1.3.1 Collection mechanisms

The assessment of various options for collecting developer contributions payments for Allowable Solutions has found that neither of the existing mechanisms (Section 106 Planning Agreements and the Community Infrastructure Levy (CIL)) offers an ideal solution when the Zero Carbon Policy and the new Part L of the Building Regulations come into force in 2016.

We therefore recommend that government should be urged to adopt a new and simpler, purpose designed, collection mechanism to enable developers to make payments for Allowable Solutions directly into a local Community Energy Fund or a National Energy Fund.

The two existing mechanisms are unsuitable because:

- Section 106 Planning Agreements are negotiable between the developer and the Local Planning Authority (LPA) but Allowable Solutions payments would be calculated according to a specific methodology and based on a fixed rate tariff. The limit on pooling developer contributions for Section 106 Planning Agreements, which will apply on adoption of the Community Infrastructure Levy (CIL) or from April 2014, would limit the use of this mechanism unless government can be persuaded that it should be relaxed. Although Section 106 Planning Agreements are site specific, as would be necessary for Allowable Solutions, they would not be ideally suited to the collection of fixed rate Allowable Solutions payments.
- The Community Infrastructure Levy (CIL) has been designed to collect developer contributions for area-wide transport and other infrastructure projects according to

an area wide charging schedule. This method of collecting developer contributions is not suitable for site specific payments but it could be used for area-wide carbon reduction and renewable energy projects in a period when economic recession does not constrain project viability. However, it would operate separately to the Allowable Solutions regime.

Section 106 Planning Agreements could provide a short-term mechanism to collect developer contributions toward carbon offsetting if Local Planning Authorities and others wanted to move forward with a Community Energy Fund before 2016 when Zero Carbon Policy will come into force. These contributions could be collected on the basis of a "Merton Rule" style policy that require developers to achieve a higher level of carbon reduction than the minimum required by Building Regulations. Local Planning Authorities would need to consider the feasibility of adopting these policies in the period before 2016.

1.3.2 Corporate structure and governance

The first stage report into the Cambridgeshire CEF considered the options for the structure of a locally controlled fund-holding body in some depth. The report concluded that the preferable structure was likely to be creation of a special purpose vehicle (SPV) and that of the structures available, a company limited by guarantee (CLG) was likely to be the most suitable.

As part of this second stage work, these preliminary conclusions were tested through consultation with the local authority legal officers. The preliminary conclusions regarding fund structure were borne out through this consultation. The feedback from participants suggested that an SPV-based structure was likely to work better than a partnership-style, contractual or "trust" structure. This is because an SPV structure presents the opportunity for more cohesive management and control shared between the local authority members – through, for example, agreed control and governance mechanisms contained in the constitution of the SPV.

We remain of the view that the company limited by guarantee (CLG) option appears to be the most suitable type of entity for the CEF vehicle for the following reasons:

- limited liability status and requirement of only a nominal guarantee;
- flexibility of membership arrangements;
- constitutional flexibility;
- familiarity to local authorities in Cambridgeshire; and
- suitability for a not-for-profit, community investment mandate.

Firm conclusions on the governance aspect of the CLG were more difficult to reach at this stage. There is clearly a case that each 'collecting' local authority should be a member of the CLG, as those local authorities will, through the collection mechanisms, be collecting money from developers and paying it over to the CLG as the fund holding body for investment in community energy schemes. It was noted by participants of the legal consultation, however, that no decision has been taken by local authorities to enter into a CEF.

Management and operational control of the CLG would be carried out by its directors. Appointing directors to the Board of the CLG is one of the key rights a member will acquire. The right of a local authority to make an appointment to the Board of the CLG will be regulated by provisions in the CLG's Articles of Association and will be a matter for negotiation and agreement between the local authorities. Participants in the legal

consultation meeting were, understandably, reluctant to express a view about who members should appoint to the board of directors, e.g. officers, councillors etc., feeling the issue to be a decision for the local authorities concerned. In making appointments, the local authorities will need to have regard to the duties of directors, ensuring that the Board has the appropriate mix of skills and experience.

1.3.3 Scale of fund and fund management

Based on recent growth plans for the Cambridgeshire local authorities and an Allowable Solutions price of £46/tCO₂ (the value used in recent government policy analysis), the cumulative Allowable Solutions income generated in Cambridgeshire over the period to 2026 is estimated at £55 million. Note that this figure is across all of Cambridgeshire's local authorities, assuming they are all partners in the CEF. It is also important to note that under the proposed Allowable Solutions framework a competitive market will be established between Allowable Solutions providers, such that the CEF will be in competition for these funds with third-party providers.

To summarise, the scale of the fund is dependent on a number of key factors, as follows:

- The final form of the zero carbon policy – policy changes announced following the 2011 budget have significantly reduced the requirement on developers to invest in Allowable Solutions (approximately halving the investment required compared to the prior definition).
- Allowable Solutions in the non-domestic sector – the form of the zero carbon policy for non-domestic development is less well developed than for the domestic sector. The extent to which developers of non-domestic buildings will be required to invest in Allowable Solutions is uncertain.
- Growth plans – The income into the fund will depend on the amount of development and also the extent to which developers rely on external Allowable Solutions providers, such as a community energy fund, in preference to delivering further onsite reductions
- The Allowable Solutions tariff – the price ceiling is as yet undefined. There is not expected to be a price floor, although the community energy fund will be in competition with other Allowable Solutions providers. Income into the CEF will depend on competitive pricing compared to these other providers.
- Membership – Clearly the scale of the fund will be strongly dependent on its membership.

A key decision for Cambridgeshire's local authorities will be whether to join a county-wide fund, or whether to develop funds at the district council level. We believe that there are significant advantages to be gained by the local authorities working together in a county-wide scheme. These advantages include:

- The county-wide fund will be able to make larger investments and therefore influence the delivery of larger, strategic projects.
- The larger-scale fund will be more likely to leverage additional sources of finance, such as bank debt, greatly increasing the overall level of investment in the area.
- Transaction costs will be lower as a percentage of money invested for larger investments.
- Economies of scale will increase efficiency in the fund's management and operational costs.
- The county-wide fund will have greater scope to develop a pipeline of cost-effective carbon reduction projects.

1.3.3.1 Fund management

There are two broad approaches to putting in place the expertise needed to run the fund:

- the Board of directors of the CLG could delegate day-to-day operational responsibilities to non-Board executives, who would be employees of the CLG. These employees would include the fund management team, with responsibility for developing the fund's investment strategy, identifying projects and structuring the finance. They would also be responsible for negotiating with developers and setting the Allowable Solutions price. These individuals will have a critical role in the success of the fund. The Board would be responsible for appointing the team and they would report back to the Board. It is unlikely that local authority officers currently have the expertise to undertake this role.
- the Board of the CLG could elect to contract out the day-to-day management of the Fund to a third party fund manager who would work to their strategic objectives.

1.3.4 Investments by the fund

There are broadly three ways in which the fund could invest in carbon reduction projects;

- Grants;
- Debt finance, in the form of loans made by the Fund; and
- Equity investments in project vehicles.

The appropriate form of investment will depend on the nature of the project and its financing requirements. Structuring finance will be the job of the fund management team.

A variety of types of project that the fund might invest in have been assessed to understand what levels of CEF finance might be required to unlock projects, the scale of carbon reduction impacts and the cost-effectiveness of carbon saving delivered.

A number of key conclusions can be drawn from this analysis:

- The Allowable Solutions ceiling price will strongly influence the types of investment the fund is able to make. If this price is set too low, either it will become difficult for the CEF to deliver its contracted CO₂ reductions or lead to very 'safe' investments, which may not be consistent with the desire for additionality.
- For example, the ceiling price of £46/tCO₂ used in recent government policy analyses does not seem to be high enough to enable the CEF to invest in low carbon energy generation projects or community heating infrastructure.
- Recycling of project returns into further investments will be very important to increase the scale of the fund's portfolio of projects. This is significant even in the case that the returns on CEF investment are modest.
- Reinvestment of funds should also enable the CEF to drive down the overall cost of CO₂ delivered. This will be important to enable the CEF to compete on price with third-party allowable solution providers. Even in the case that funds are held in a national fund, arrangements will need to be put in place to enable the CEF to recycle returns on investment.
- Leveraging of the CEF investment with bank debt and equity (where available) will be key to enabling the CEF to deliver large-scale projects.

1.3.5 Carbon accounting

The Zero Carbon Hub's Allowable Solutions framework proposes that a national Allowable Solutions Verification and Certification Scheme is established. We recommend that the principle of a national Allowable Solutions Verification and Certification scheme be supported. This is not inconsistent with a local fund, as all local authority areas would benefit from having nationally agreed and implemented verification/certification procedures. In our consultation with local authority legal officers, understandable concern was expressed about the prospect of local authorities having to implement their own verification and certification procedures and expertise. A national solution would be appropriate here.

The process that a national Allowable Solutions Verification and Certification would follow to assess carbon savings is not developed in detail in the Zero Carbon Hub report.

The processes established under the Clean Development Mechanism (CDM) to monitor and verify carbon savings are referred to as a potentially useful starting point, although it is recognised that the complexity of these processes is inappropriate for the Allowable Solutions framework.

The key stages in any carbon accounting process are as follows:

- **Evaluation** of carbon emissions that a project is expected to deliver.
- **Monitoring** of necessary data to enable actual carbon saving of the project to be calculated.
- **Verification** of carbon saved, by a process of analysis of the monitored data
- **Reporting** carbon saving to stakeholders

The evaluation stage is clearly critical for CEF managers to assess investment opportunities and to determine the allowable solution price offered. Fund managers would be expected to perform due diligence on investments, potentially involving external expertise. A set of clear, consistent methodologies for determining CO₂ reductions for typical project types would be useful to ensure projects can be evaluated on a consistent basis.

The monitoring and verification procedure will need to be agreed at the point that Allowable Solutions projects are contracted. Project developers should submit a monitoring methodology as part of the project plan, performance of which will be a condition of CEF funding. The appropriate level of detail of the monitoring and verification arrangements will be dependent on what the results are to be used for. For example, if the data is simply to allow the CEF to track the effectiveness of its investments and report on its overall carbon reduction performance, the level of monitoring and verification may be less onerous than if financial liabilities are triggered by underperformance (either for the project or for the CEF). The complexity of the monitoring and verification arrangements should be pragmatic and avoid the development of a potentially burdensome industry around verification of project performance.