



REPORT TO: Cabinet
LEAD OFFICER: Executive Director, Corporate Services

07 February 2018

South Cambridgeshire District Council Energy Investment Opportunities

Purpose

1. This report explores the options and makes recommendations for the investment of funds from the Council's Renewables Reserve to generate income and move towards increasingly sustainable and secure models of energy generation and consumption.
2. This is a key decision which was first published in the Forward Plan on 05th December 2017.

Recommendations

3. It is recommended that:
 - (a) Cabinet approve access to Cambridgeshire County Council's procurement for an energy contractor under the Greater London Authority's 'Re:fit' framework at no upfront cost, allowing SCDC to make use of services and expertise of Bouygues (the successful contractor) and exploit key benefits of the Re:fit scheme, as detailed in Table 1.
 - (b) Subject to the agreement of Recommendation a), that SCDC request the investigation by Bouygues of:
 - (i) Income generating and/or cost saving energy investment opportunities at the South Cambridgeshire Hall site.
 - (ii) Income generating and cost saving energy investment opportunities at the planned new build Sports Pavilion and Community Centre sites at Northstowe.
 - (iii) Opportunities to add non-financial value to the Council's footway lighting stock.
 - (c) Cabinet support the formation of a Renewables Reserve Working Group charged with commissioning investigations, identifying and assessing opportunities, making recommendations and providing 6-monthly updates to CMT and annual updates to EMT in relation to the investment of funds from the Renewables Reserve.

Reasons for Recommendations

4. The Local Government Finance Bill provides for the retention of business rates income from new renewable energy projects in the district. Renewable energy receipts for South Cambridgeshire District Council, held in the Council's Renewables Reserve, are forecast to stand at approximately £1,565,000 following the transfer of 2017-18 retained business rates to the reserve at the end of the financial year (this forecast may be subject to changes through the remainder of the year). Under current government legislation, this is set to continue to grow on a yearly basis. The Council has set up the Renewables Reserve for investment in sustainable energy

schemes, providing benefit to South Cambridgeshire and its residents through increased energy sustainability and security.

5. To date £55,000 per annum has been committed from the Renewables Reserve for the purpose of a Community Energy Grant Fund, following approval by Cabinet in November. This is set to launch on 01st March 2018 and is due to run for four years. In addition, a second business case has now been submitted to Cabinet for the set up of a Green Energy Loan fund, which would require a further £200,000 commitment from the Renewables Reserve.
6. As opposed to the schemes referred to in paragraph 5, the focus of the options outlined within this report is primarily on income generation. SCDC's 5 year General Fund revenue forecast, set out within the Budget Setting Report and published as part of the council's Medium Term Financial Strategy, identifies that "new savings of £163k remain to be found in 2017-18 and £1,531k thereafter" (page 60). It also identifies a number of ways that the Council will address this savings target, including the exploration of "opportunities for investment of Council funds, for example in...green energy" (page 57).
7. The above recommendations have been made as part of this exploration of green energy investment opportunities to ensure that SCDC adopts a coordinated and informed approach to the investment of Renewables Reserve Funds into sustainable energy projects, with the primary objective of generating income and savings.

Background

Recommendation a) – Accessing Cambridgeshire County Council's 'Re:fit' Energy Contractor

8. Re:fit is a procurement initiative, co-owned by the Greater London Authority (GLA) and Local Partnerships (a joint venture between HM Treasury and the Local Government Association), that was developed and piloted in 2008 to overcome barriers to the retrofit of non-domestic public sector buildings or estate with measures for the achievement of greener energy use. According to the Local Partnerships website, these risks were identified as:
 - A lack of capacity and expertise within public sector organisations to identify and implement projects and access finance.
 - Long and complex procurement processes.
 - Risks associated with investing money with long term paybacks and no savings guarantees.
- (Details of how Re:fit addresses these barriers are included in Table 1 below).
9. Since 2008, over 250 organisations have engaged Re:fit and more than £180 million of works has been procured across more than 1000 buildings. Its current pipeline is over £91 million and growing. Since 2014 Cambridgeshire County Council have successfully utilised the Re:fit framework to invest over £20m into energy performance projects at schools and other public assets.
 10. Other Cambridgeshire authorities have previously accessed Cambridgeshire County Council's procurement of an energy contractor under Re:fit, including Cambridge City Council who have used the scheme to upgrade to LED lighting in their city centre car parks and Fenland and Huntingdonshire District Councils, who have both used the scheme to implement energy saving measures at their leisure centres.

11. Following a procurement process, during which SCDC's Policy and Performance Officer sat on the evaluation panel, Cambridgeshire County Council have recently (November 2017) appointed Bouygues to continue energy performance contracting work under the latest iteration of the scheme, 'Re:fit 3'. The County Council's re-appointment of Bouygues now provides SCDC with a timely opportunity to make use of the services and expertise available through the Re:fit scheme, the benefits of which are detailed in Table 1 below.

Table 1 – Benefits of accessing and undertaking projects under Re:fit

Benefit	Barriers Addressed
Availability of Bouygues' team of experts for the provision of ' High Level Assessments ' (HLAs) to assess options on sites/assets that we wish to investigate. HLAs are undertaken free of charge and do not commit the Council to any work.	A lack of capacity and expertise to confidently identify and implement energy projects that make best use of the Council's assets.
Support from Local Partnerships is available to identify and confirm project scope, and to support organisations to get projects up and running and successfully implemented. This includes legal, financial, technical and project management expertise.	
Under Re:fit, Bouygues are required to guarantee energy savings and income that they identify within their 'Investment Grade Proposals' (which follow initial HLAs, if we decide to go ahead with the implementation of measures).	Risks associated with investing money with long term paybacks (5-10+ years) and no savings guarantees.
Re:fit is a pathway with a proven track record , both nationally and regionally (see paragraphs 8-10), whilst Bouygues have also demonstrated their ability to deliver under this framework through responsibility for the energy works listed in paragraphs 9 and 10.	
Bouygues have been selected as part of a competitively tendered and OJEU-compliant procurement process (initially to be selected as one of the 16 Energy Services Companies included on the Re:fit framework, and subsequently through a demanding mini-competition, run by Cambridgeshire County Council and with representation from SCDC and Cambridge City Councils). As such SCDC would not be required to undertake procurement for energy projects.	Long and complex procurement processes. Internal resource intensive.

12. To access this Re:fit procurement SCDC would be required to sign an access agreement with Local Partnerships to ensure compliance to the Re:fit framework terms, and an enabling agreement with Cambridgeshire County Council. However, there would be no upfront costs associated with either of these agreements

13. Any charges are dependent on work going ahead following the identification of potential projects within High Level Assessments (HLAs - see Table 1 for further detail). This provides SCDC with the opportunity to use the HLAs that are available free of charge to assess value for money prior to committing to any projects, or the use of Re:fit procurement for the undertaking of these projects. Should Re:fit then be used to undertake such projects, the costs detailed in Table 2 would be payable.

Table 2 – Costs of using the Re:fit Framework

Action/Cost Type and description	Amount payable and to whom
<p>Recovery of procurement costs</p> <p><i>Allowing Cambridgeshire County Council to recoup procurement costs.</i></p>	<p>Cambs County Council intends to charge a small percentage of the value of each project contract - likely to be in the region of 0.25%. This will be set out within the enabling agreement with the County Council.</p> <p>By way of example, a capital investment of £400,000 would result in a £1,000 fee. Local Partnerships have indicated that a SCDC OJEU-led procurement would cost in the region of £100,000 and take 6-9 months to complete.</p>
<p>Investment Grade Proposals (IGPs)</p> <p><i>Completed once HLAs have been used to identify measures to progress. IGPs provide greater detail in respect of chosen measures.</i></p>	<p>Bouygues charge for IGPs at rates set out within their tender documentation.</p> <p>The HLAs contain a summary business case that includes the costs that would be involved with the production of IGPs. These can be cross-referenced with tender documentation to ensure costs are consistent.</p>
<p>Legal Costs</p>	<p>0.25% of capital value of each contract is payable to Crown Commercial Service.</p>
<p>Costs of works</p>	<p>Dependent on project specifics. Project estimates detailed in IGPs.</p>
<p>Internal resources</p>	<p>Projects coming forward under Re:fit will involve time from existing SCDC and 3C staff resources, including project managers; sponsors; Finance support, Procurement support and Legal support. It is proposed that these roles could be carried out as part of the wider remit of a newly formed Renewables Reserve Working Group (see paragraphs 31-35 for further details)</p> <p>A further option that may be considered is to commission a Re:fit programme manager from either internal or external resource (for example this is a service that could be provided by East of England LGA) to support the delivery of the identified projects and coordinate the above resources and their work streams.</p>
Charges from Local Partnerships (LP)	

<p>The below charges from Local Partnerships (LP) are based on minimum support fees (the model used by Cambridgeshire County Council) providing a compliance check of key documentation. Each fee assumes one formal review and a final review to ensure necessary revisions have been properly considered. Additional reviews may result in further fees. For details of a more comprehensive support offering from LP, please see paragraph 14 below.</p>	
<p>Review and approve final draft IGP</p>	<p>£2690 per item.</p> <p>LP have discretion to review and approve a sample of IGPs only (for example where a project involves a significant number of IGPs) in which case this fee shall be adjusted reasonably at LP's discretion.</p>
<p>Review and approve final draft contract</p>	<p>£3225</p>
<p>Review of Works Optimisation Agreement (the actual work/construction contract)</p>	<p>£540 per item.</p> <p>Note also that LP shall have discretion to review and approve a sample of Woks Optimisations Agreements only (for example where a project involves a significant number of these) in which case this fee arrangement shall be adjusted reasonably at LP's discretion.</p>

14. The above charges from Local Partnerships are based on the minimum support fee model taken up by Cambridgeshire County Council. However, it is worth noting that Cambridgeshire County Council has dedicated and highly experienced resource provided through its Energy Investment Unit. As such we may wish to consider the negotiation of a support package based on our own individual requirements. This could include a more detailed support package covering HLA and IGP design phases, more detailed commercial, legal and technical support, review of the Monitoring & Verification plan (to monitor the ongoing performance of implemented measures), plus access to support during implementation and the savings delivery (first year) phases to tackle problems, if they should arise. Estimated support fees for this level of support would be in the region of £15k for the footway lighting and South Cambridgeshire Hall projects detailed below.

Recommendation b) – Delivery of a High Level Assessment for South Cambridgeshire Hall

15. SCDC benefits from a modern and efficient office building at South Cambridgeshire Hall, and reduced energy expenditure as a result of a Cambourne Parish Council owned solar installation located on its roof. However, as the primary employment site for the majority of SCDC staff, South Cambridgeshire Hall accounts for the majority of the Council's energy consumption and expenditure, and is also the largest site under Council ownership. It therefore offers scope for the exploration of energy efficiency and generation measures.

16. In 2014 a project was set up to explore and subsequently pursue the installation of solar canopies within the carpark at South Cambridgeshire Hall; however planning permission for this project was refused on the grounds of visual impact. Following the alteration of plans to reduce visual impact, it was decided not to re-submit due to the discovery that network capacity would not allow surplus electricity to be exported to the grid. This would have removed the 'export tariff' element of feed-in-tariff income, impacting on payback and profit projections. Since this project there has been a significant reduction in feed-in-tariff (FiT) levels available for solar installations, resulting in a nationwide drop in solar deployment.
17. Following the refusal of planning permission, consultants provided energy savings and income generation calculations for a reduced 190,000kWp installation on the basis that this would address planning concerns around visual impact. These calculations have been revisited and updated in consultation with original project team members, to account for reduced FiT rates (rates used for July to September 2018) and current electricity costs, plus the removal of the 'export tariff' income stream.

Table 3 – Carpark Solar estimates

	Aug 2015 calculations	Updated December 2017 Calculations
Estimated payback period	8 years	12-14 years
Estimated profit after 25 years (not including maintenance costs)	£550,000	£290,000

18. When considered within the context of the wider environmental, energy security and reputational benefits that this project could deliver, plus the availability of the Renewables Reserve to fund such measures, this payback period and level of income may represent sufficient value to warrant investment.
19. It is, however, also possible that there are combinations of measures, income streams and alternative options that we are currently unaware of that would provide improved rates of return and/or wider benefits. Accessing the County Council's Re:fit procurement would provide an opportunity to obtain expert analysis of the opportunities at South Cambs Hall in the form of a High Level Assessment, at no upfront cost. This would include a reliable examination of the income and savings, opportunities and risks afforded by various measures, allowing SCDC decision makers to compare the options and make an informed and confident decision about how best to proceed. Should we then wish to advance a project, this could be undertaken without the requirement for a further procurement process and with savings and income guaranteed by Bouygues (see Table 1 for further detail in relation to these guarantees).

20. Bouygues have previously produced HLAs and Investment Grade Proposals for a 'smart-grid' project at Cambridgeshire County Council's St Ives Park and Ride site. This project incorporates solar canopies, EV charging points, battery storage and the sale of surplus generated electricity to locally situated centres of demand, with work set to commence on site in spring 2018. This 'smart-grid' approach is one that the government is keen to embrace, stating within its recent Industrial Strategy that "smart systems can link energy supply, storage and use, and join up power, heating and transport to increase efficiency dramatically." As such it is advised that this type of approach should be the primary focus for any HLA that proceeds at South Cambridgeshire Hall.

Recommendation c) – Delivery of High Level Assessments for Northstowe Sports Pavilion and Community Centre

21. SCDC is committed to the delivery of Sports Pavilion and Community Centre facilities for Northstowe Phase One. In accordance with the S106 agreement, the transfer of land for the delivery of these community buildings will be triggered by the occupancy of 350 dwellings for the Sports Pavilion (forecast for around Spring 2019) and 750 dwellings for the Community Centre. Once the transfer of land has occurred, SCDC must use reasonable endeavours to deliver these facilities within 18 months.
22. The specification for the Sports Pavilion will be submitted to EMT in the coming months, and will include aspects around the generation of renewable energy, with the objective of achieving low running costs for the facilities.
23. Whilst the expectation is for ownership and maintenance of the Sports Pavilion and Community Centre to be transferred from SCDC upon completion (to a group still to be formed and identified), there may be scope for SCDC to generate an income beyond this point. This could be through a form of agreement whereby SCDC would retain ownership of renewable generation assets installed on site, similar to the arrangement in respect of Cambourne Parish Council owned solar panels installed on the roof space at South Cambridgeshire Hall. Through this approach the facilities would continue to benefit from lower energy costs as a result of generated electricity, whilst SCDC would receive an income from subsidies and the sale of any surplus electricity to local consumers (if viable).
24. It is therefore recommended that SCDC approaches Bouygues with a view to commissioning HLAs to identify green investment opportunities on site at these community facilities and to identify models that may provide SCDC with an income stream beyond the transfer of ownership.

Recommendation d) – Delivery of a High Level Assessment for South Cambridgeshire District Council Footway Lighting Stock

25. Many local authorities are in the process of upgrading, or have plans to upgrade their lighting stock to LEDs in the near future, to take advantage of available energy savings in excess of 50% and as traditional bulb types are phased out, becoming harder and more costly to source. SCDC currently has approximately 1800 lights within its footway lighting inventory and the Council is exploring options for the upgrade of these to LED, with demonstration of LEDs due to take place in Hardwick and Ickleton.

26. For SCDC the benefits of this project are non-financial, with Parish Councils the beneficiaries of cost savings through reduced energy costs for the lights within their areas. However, the project presents an opportunity for SCDC to explore the maximisation of non-financial benefits from our footway lighting assets, particularly in relation to environmental quality.
27. These benefits have the potential to go beyond the obvious improvements in light quality that are associated with a straightforward upgrade to LED. This is highlighted by IOTUK (launched as part of the Government's £32m investment to accelerate the UK's Internet of Things capability), who in their April 2017 'The Future of Street Lighting' report state that:

Lamp posts...have the potential to act as a smart city platform, enabling a range of other smart city applications through the integration of data collection devices such as sensors and cameras.

28. Of particular interest to SCDC, due to corporate objectives around maintaining air quality and ensuring that the district is a healthy place to live, could be the capability to use lighting columns to host air quality monitoring systems and electric vehicle charging points.
29. The upgrade to LED and the potential to combine this with control management systems would also allow lighting stock maintenance to be carried out more effectively.
30. Accessing Re:fit could provide the opportunity for SCDC to request that Bouygues undertake an HLA to explore additional footway lighting functionality.

Recommendation e) – Formation of a Renewables Reserve Working Group

31. It is clear that how SCDC chooses to invest in energy has strong implications for the future of the district, and links to a range of SCDC objectives, including, but not limited to:

Local environmental quality, climate change, energy security, strong and thriving communities, low carbon transport, asset management, income generation, partnership working, supporting local businesses, economic growth and development, health and wellbeing, fuel poverty.
32. This report has outlined a wide range of investment options for the SCDC Renewables Reserve, including those that could be pursued by accessing Cambridgeshire County Council's Re:fit procurement. Although this route offers a proven pathway that reduces the barriers to energy investment, internal resource would be required to ensure the successful management of projects falling under Re:fit, as detailed in the 'Internal Resources' section of Table 2.
33. In addition to the options outlined within the main body of this report, Appendix A provides details of a number of further potential investment opportunities that would require monitoring, investigation or development. However, due to the broad and rapidly changing nature of technology and the energy sector, it is certain that additional areas already exist and will continue to emerge that have not been touched upon within this report.

34. In recognition of this and to ensure that the Council approaches the identification of investment opportunities, and manages identified projects (including those initial identified within this report as opportunities through Re:fit) in a coordinated and effective manner, it is recommended that Cabinet supports the formation of a Renewables Reserve Working Group. This group would be charged with commissioning investigations, identifying and assessing opportunities through the undertaking of business analysis, creation of business cases, provision of project support in relation to the undertaking of tasks relating to the Re:fit process and working group governance. Based on this, it would also make recommendations and provide six-monthly reports to CMT and an annual position report to EMT in relation to the Renewables Reserve.
35. Given the far reaching implications on SCDC's objectives, a Director-level Chairperson will be appointed allowing high-level representation and sponsorship to take place. The group will also include members of CMT to ensure effective feedback to senior management and Councillors and that focus aligns with the Council's strategic objectives and priorities. Finally, the working group will be constituted of officers from each of the Council's directorates to ensure awareness of related work from across the organisation, minimising duplication and taking advantage of opportunity for cross-over.

Implications

36. In the writing of this report, taking into account financial, legal, staffing, risk management, equality and diversity, climate change, community safety and any other key issues, the following implications have been considered:-

Financial

37. There are no upfront costs associated with accessing the County Council's Re:fit procurement. Rather, the charges detailed in Table 2 (above) only become payable once High Level Assessments (HLAs) are provided by Bouygues to identify the income generation and/or savings potential of various measures on a site, **and** a decision is made by SCDC to continue use Re:fit to pursue a set of measures from within these. This provides SCDC with the opportunity to use the HLAs that are available free of charge to assess value for money prior to committing to any projects, or the use of the Re:fit procurement for the undertaking of these projects.
38. Paragraph 14 refers to the option to commission a package of additional support likely to incur costs; we are currently awaiting full details of this proposal and would need to evaluate it once available in order to determine whether such a package would add value and, if so, how it should be funded.
39. The report also outlines options for the investment of funds from SCDC's Renewables Reserve, which are forecast to stand at approximately £1,565,000 following the transfer of 2017-18 retained business rates to the reserve at the end of the financial year (this forecast may be subject to changes through the remainder of the year).

Legal

40. Advice will be required from the 3C Legal team to gain access to Cambridgeshire County Council's procurement of an energy contractor under the Re:fit procurement framework.

41. **Staffing**

It has been recommended that a Renewables Reserve Working Group is formed to commission investigations, identify and assess opportunities, make recommendations and provide six-monthly reports to CMT and an annual position report to EMT in relation to the Renewables Reserve. This will require time from existing staff resources.

Risk Management

42. Risk registers will be completed for each Renewables Reserve investment project taken on.

Equality and Diversity

43. Equality Impact Assessments will be completed for each Renewables Reserve investment project taken on.

Climate Change

44. This report has been developed to assess the options available to SCDC for the investment of Renewables Reserve funds in projects that will seek to deliver or contribute towards climate change reduction measures.

Consultation responses

45. A number of teams and individuals have been involved in the development of these options. They include:

- (a) Alex Colyer, Executive Director – Corporate Services
- (b) Gemma Barron, Head of Sustainable Communities and Wellbeing
- (c) Paul Quigley, Head of Environmental Commissioning
- (d) Phil Bird, Business Improvement and Efficiency Manager and Head of Facilities Management
- (e) Suzy Brandes, Principal Accountant
- (f) Robert McKinnon - Local Partnerships
- (g) Andrew Rowson – East of England Local Government Association

Effect on Strategic Aims

Living Well

Investment of the Renewables Reserve could impact on SCDC's Living Well Corporate Objective, including the aim to support residents to stay in good health (for example through improved air quality and the promotion of energy efficient homes and the provision of a secure local generation supply), whilst acting to protect the natural and built environment.

Homes for the Future

The provision of new homes is central to the future of the district; however there is potential for this to be put at risk by constraints on the electricity grid serving the Greater Cambridge area. This can mean insufficient capacity to supply new developments, resulting in delay and unforeseen grid reinforcement costs during construction, particularly on sites with high levels of energy use (this therefore also impacts on business development sites and the Connected Communities objective). Many major new developments are accompanied by new energy generation measures in order to meet carbon reduction, and in some cases, funding requirements. However, with local grids approaching or having met generation capacity limits, restrictions are being placed on new generation connections to the grid. The spending of Renewables Reserve funds therefore has the potential to impact on the Homes for the Future objective through a focus on renewable generation projects that seek to supply existing local demand centres and reduce reliance on the local grid for electricity provision (for example through the 'smart-grid' approach referred to in paragraph 20).

Connected Communities

The spending of the Renewables Reserve could contribute to SCDC's Connected Communities objective through the investment of Renewables Reserve funds into projects that supports transition to the district's transport future (e.g. investment in EV charging points etc.). The fund could also empower local community groups to undertake further work to support the district's growing and vibrant communities if projects are pursued that reduce community group energy costs, thereby freeing up resources for alternative uses. The Reserve may also have a positive impact on South Cambridgeshire-based SMEs, who could benefit from reduced energy costs should the Council look to develop an on-site generation scheme for businesses (as referred to in Appendix A).

An Innovative and Dynamic Organisation

The Renewables Reserve offers the opportunity to identify and take advantage of commercial investment opportunities. It may also offer the opportunity for partnership working with other local authorities.

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Appendix A - Additional potential investment opportunities

A range of investment opportunities have been examined going beyond those mentioned in the main body of this report - a summary is included below. Whilst all of these options may in the future represent viable investment opportunities, further work would be required to develop and implement these. As part of recommendation e), it is recommended that this further development and investigation work should fall within the remit of a newly formed Renewables Reserve Working Group.

<p>Business and/or Community Group onsite generation scheme</p> <p>This approach would see SCDC investing in the installation of renewable or low carbon energy generation measures on South Cambridgeshire business and/or community group premises. SCDC would receive income from any subsidies attracted and from supplying the business with generated electricity at below market price through a form of site/roof rental agreement.</p> <p>This method has been successfully adopted by West Suffolk Councils (a partnership between Forest Heath and St Edmundsbury District Councils), who identified a lack of access to investment capital as a common barrier to the installation of renewable energy measures by businesses.</p> <p>A pilot for their solar-for-business scheme was initially undertaken with a local business. This proved to be a success and as of June 2017, West Suffolk Councils owned and operated 18 solar installations through this scheme with a further 7 were planned for imminent completion.</p> <p>Due to the reduction in feed-in-tariffs for solar from Jan 2016 onwards, West Suffolk have investigated opportunities presented by other technologies through this model, including a renewable heat. The first such scheme was completed in March 2017, with a biomass heating installation costing £108,000 and delivering savings of £1,300 annually to a business whilst providing Forest Heath District Council with an investment return of approximately 9% and payback of around 9 years over a 20 year project life.</p> <p>Possible next steps:</p> <p>Investigations would be required to identify businesses and/or community groups that may be suitable for a pilot scheme. Initial enquiries with West Suffolk Council have found that viable premises need to be regular and consistent energy users for at least 5 days of the week. West Suffolk Council have also found that solar installations of 10-50kW remain viable, but that this would be unlikely to continue in the event of further FIT reductions.</p>
<p>Electric Vehicle Charging Points</p> <p>There has recently been a great deal of media attention given to the growth of Electric Vehicles (EVs), with the UK government announcing a ban on new petrol and diesel vehicles by 2040, and car manufacturers such as Volvo committing to phase out petrol and diesel vehicle production (in Volvo's case, by 2019).</p> <p>While there has been rapid growth in the number of EVs on the roads, according to Department for Transport statistics, the total numbers of plug-in vehicles were still only 105,763 in the whole of the UK, 1,309 in Cambridgeshire and 357 in South Cambridgeshire at the end of 2017 quarter 2. A huge amount of growth therefore needs to take place before Electric Vehicle ownership becomes the norm, requiring extensive investment in the EV charging network.</p>

Investment in local EV charging points would provide SCDC with the opportunity to influence the rate of EV ownership within South Cambridgeshire and the surrounding districts (thereby contributing towards improved air quality for the district). It may also offer the potential to generate income, with pay-as-you-go and subscription models of charging becoming increasingly common on 'rapid' (80% charge within 30 minutes) and even 'fast' (charge in 3-4 hours) charging points.

Whilst this offers the possibility for SCDC to invest in the installation of its own pay-as-you-go charging points, this may be a relatively resource intensive process (requiring planning permission and network connection) with returns on investment that are difficult to model and which depend largely on the rate at which demand comes online as residents make the switch to EVs.

Mid-Devon District Council have recently taken an alternative approach by partnering with a company who lease car park spaces upon which to install rapid, pay-as-you-go EV charging points for a period of 20 years, providing a guaranteed, zero investment, index-linked income. This option is dependent on the company considering the site suitable, being able to gain planning permission and necessary grid connection. These are all factors that are investigated by the company, meaning minimal impact of SCDC resources.

Possible next steps:

SCDC are currently interested in EV charging points from the point of view of income generation, air quality, planning, footway lighting replacement (in the form of integrated lighting columns and EV chargers) and the future of transport within the district and its surrounding areas. It is important that learning from each of these points of view are shared to ensure a joined up approach. This is not to say that a range of approaches cannot and should not be investigated and piloted in a bid to support the transition to EVs.

Purchase of an existing Solar Farm

Solar is an established and low maintenance technology; however the reduction in FITs since Jan 2016 has significantly reduced the number of solar farms being built since this date. SCDC does not own large amounts of land upon which it would be possible to build a new solar farm, whilst purchasing land upon which to build a solar farm is unlikely to be financially rewarding.

Purchasing an solar farm is an approach that has been taken by Forest Heath District Council, who in 2016 purchased a solar farm at Lakenheath that was completed shortly prior to the cut-off point for higher rates of government subsidy.

Sites offering this possibility are at a premium due to the fact that they offer a generous and guaranteed return on investment over a 15-20 year period. As such, they are often the subject of attention from large scale investment companies, pension funds and investment trusts. It is therefore likely that the identification of such an opportunity would need to result from existing connections between site owners and SCDC.

Possible next steps:

Explore existing relationships with solar farm owners to ascertain whether any offer the opportunity for SCDC investment.

Renewables Treasury Management

This approach could follow the example of the London Boroughs of Newham and Bexley, and Warrington Borough Council who have jointly invested £12m in a bond secured against two solar farms. Some of the bonds are for one year, but the majority are for five,

with a combined return of 4%.

To make this worthwhile, SCDC would require a return of 3.85% to match the rate at which we lend to Ermine St. Housing. This would need to be balanced with an acceptable level of risk and investment duration.

Another option would be to investigate the Green Investment Group's Offshore Wind Fund. Until recently this was a government run fund set up to invest purely in offshore wind farms in the UK. However, the Green Investment Bank has recently been purchased by a multinational organisation, leading some to call into question whether the funds will continue to be directed purely into UK based offshore wind.

Whilst Renewables Treasury Management would offer the opportunity to generate income from renewable sources with a relatively low impact on officer time, financial returns are likely to be lower than through direct investment in renewables. Further, by investing in energy projects more locally, it may be possible to achieve wider benefits for South Cambs residents, as would be the case for community facilities at Northstowe or investment in EV charging points.