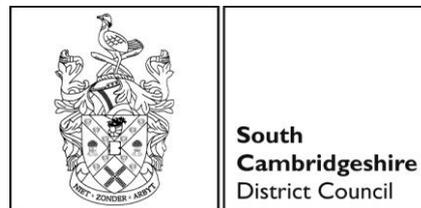


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15 November 2021

To: Chair - Councillor Pippa Heylings  
Vice-Chairs – Councillors Dr. Martin Cahn and Geoff Harvey

Members of the Climate and Environment Advisory Committee –  
Councillors Paul Bearpark, Grenville Chamberlain and Graham Cone

Substitutes: Councillors Heather Williams, Dr. Shrobona Bhattacharya,  
Mark Howell, Tom Bygott, Sue Ellington, Eileen Wilson and  
Judith Rippeth

Dear Sir / Madam

You are invited to attend the next meeting of **Climate and Environment Advisory Committee**, which will be held in **Council Chamber - South Cambs Hall** at South Cambridgeshire Hall on **Tuesday, 23 November 2021 at 2.00 p.m.**

Yours faithfully

**Liz Watts**

Chief Executive

**The Council is committed to improving, for all members of the community, access to its agendas and minutes. We try to take all circumstances into account but, if you have any specific needs, please let us know, and we will do what we can to help you**

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<b>Agenda</b>		<b>Pages</b>
<b>1. Apologies</b>		
<b>2. Declarations of Interest</b>		
<b>3. Minutes of the Previous Meeting</b>		<b>1 - 6</b>
To agree the minutes of the meetings held on 13 and 21 September 2021 as a correct record.		
<b>4. Matters Arising from the Minutes</b>		
<b>5. Public Questions</b>		
Questions from Elizabeth McWilliams		
<b>What happens to the plastics we put in our blue bins?</b> I note that the SCDC website states:		

'Over 97% of the recyclable plastic that Greater Cambridge Shared Waste service collects is sent to UK reprocessors for recycling. The remaining material which is exported is fully tracked in accordance with strict guidance from DEFRA and this is recorded on the national Waste Data Flow website. Materials are only sent to sites which have a permit to recycle them legally.'

Specifically

(i) What monitoring is in place of the Amey contract to ensure that the 97% target reprocessed in the UK is met?

(ii) What % UK reprocessed has been achieved so far in 21/22?

(iii) What was the % UK reprocessed in 20/21 and is the trend improving or not?

(iv) How does the tracking of the remaining material work? I tried generating reports from the National Waste Data Flow website on recycling and landfill and this returned 0% for SCDC. Could you therefore please clarify what % of waste is sent abroad for processing and to which countries?

Request to speak from Daniel Fulton about the design considerations of climate change on the district's new towns of Northstowe and Waterbeach.

- |           |   |                |
|-----------|---|----------------|
| <b>6.</b> | <b>Stock Modelling for Zero Carbon and Improvements to Energy Efficiency across the Council's Housing Stock</b> | <b>7 - 48</b>  |
| <b>7.</b> | <b>Mid Year Progress Report on Zero Carbon and Doubling Nature Action Plans</b>                                 | <b>49 - 58</b> |
| <b>8.</b> | <b>Zero Carbon Communities Programme and Six Free Tree Project Update</b>                                       | <b>59 - 72</b> |
| <b>9.</b> | <b>Forward Plan and Date of Next Meeting</b><br>The next meeting will be held on Wednesday 12 January 2022.     |                |

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Please also refer to any Covid-security measures relating to meetings in the Council Chamber

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- *Do not* re-enter the building until the officer in charge or the Fire and Rescue Service confirms that it is safe to do so.

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### **Disturbance by Public**

If a member of the public interrupts proceedings at a meeting, the Chair will warn the person concerned. If they continue to interrupt, the Chair will order their removal from the meeting room. If there is a general disturbance in any part of the meeting room open to the public, the Chair may call for that part to be cleared. The meeting will be suspended until order has been restored.

### **Smoking**

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### **Food and Drink**

Until the lifting of Covid restrictions, no vending machines are available. Bottled water is available for attendees at meetings.



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# Agenda Item 3

## South Cambridgeshire District Council

Minutes of the Climate and Environment Advisory Committee held on  
Monday, 13 September 2021 at 2.00 p.m.

**Chair:** Pippa Heylings  
**Vice-Chair:** Dr. Martin Cahn and Geoff Harvey

**Committee Members in attendance:**

Paul Bearpark  
Sue Ellington

**Councillors in attendance:**

Bridget Smith

**Officers:**

Patrick Adams	Senior Democratic Services Officer
John Cornell	Natural Environment Team Leader
Peter Gibson	Principal Environmental Officer – Environmental Planning
Jane Green	Built and Natural Environment Manager
Soraya Hashemi	Scientific Officer
Siobhan Mellon	Development Officer - Climate and Environment
Rebecca Weymouth-Wood	SSWS Waste Policy Manager

**1. Apologies**

Apologies for absence were received from Councillors Grenville Chamberlain and Graham Cone. Councillor Sue Ellington was present as substitute for Councillor Graham Cone.

**2. Declarations of Interest**

Councillor Martin Cahn declared a non-pecuniary interest as a client of the Solar Together scheme.

**3. Minutes of the Previous Meeting**

The Committee agreed the minutes of the meeting held on 13 July 2021, subject to the amendment of the penultimate sentence of minute 8 to "... the greenhouse gas sulphur hexafluoride in the installation of grid infrastructure."

**4. Plans for Ouse Fen and Fen Drayton Nature Reserves - Implications and Opportunities**

Hannah Phillips of the RSPB gave a presentation on the Hanson Wetland Project at Fen Drayton lakes. She explained that the RSPB had restored 80 hectares of land, with plans to restore a further 300 hectares. It was noted that this tied in with the Council's objective aspiring to achieve a 20% net gain in biodiversity in the

District. Hannah Phillips explained that access to the site needed to be improved and she invited suggestions from the Council on what activities could take place on the site.

In addition, Hannah Phillips stated that the RSPB wetlands site at Fowlmere was in danger of drying out and she was grateful with regards to the Council's leadership on this issue. Hope Farm, near Knapwell, demonstrated how farmers and nature could work together and was helping to reverse the decline in the number of turtle doves.

Councillor Sue Ellington suggested that the RSPB contacted the parish councils of Fen Drayton and Swavesey to ensure the support of the local residents, including farmers, of both villages and tackle the access issue together.

The Chair explained that the Council had set the aspirational net gain target of 20%, which could only be achieved by working in partnership with organisations like the RSPB.

The Built and Natural Environment Manager assured Hannah Phillips that the RSPB would receive a response following their application for Section 106 funding with respect to the Northstowe development, and explained that a report on the Section 106 funding for phase 3 of the development would be going to the Planning Committee, hopefully in October.

Hannah Phillips agreed to send a copy of her presentation to the members of the Committee. The Chair thanked Hannah for her presentation.

## **5. Green Homes Grants Local Authority Delivery Scheme Update**

The Development Officer Climate and Environment presented this report, which updated the Committee on the delivery of home energy improvement measures to properties in the District through the Government's Green Homes Grant Local Authority Delivery scheme. It was noted that the Government had withdrawn the initial consumer-direct phase of the scheme, but that the Local Authority delivery phases were still in operation, the Council was engaging with these and would continue to do so, with a new Project Officers who would be working on this starting in November.

In response to questioning, the Development Officer Climate and Environment explained that bids had been submitted to energy improvement works for eligible households in the District.

It was suggested that advice could be provided for private sector landlords.

The Chair thanked the Development Officer Climate and Environment for her report and asked that the Committee be kept informed of all developments.

## **6. Air Quality Update**

The Principal Officer (Environment Planning) presented this report, which provided details of the Council's strategy to protect and improve the air quality in the District.

#### **A14**

The Chair expressed concern that Air Quality Management Area (AQMA) had been revoked on the A14 between Girton and Histon and if we had insufficient data on the air quality. The Air Quality Scientific Officer explained that the monitoring of the A14 area would continue.

#### **New equipment for short studies**

The Air Quality Scientific Officer explained that the Council had access to small portable units that could monitor air quality for a short period of time. The Air Quality Scientific Officer explained that a short-term study of pollution could result in an action plan that put measures in place to reduce the pollution. These studies could also influence policies for future growth.

#### **Harston study**

The Air Quality Scientific Officer explained that it was difficult to know why there had been two high peaks at the Harston station, either local weather conditions or a fault with the sensor during settling in time was possible. It was reassuring that the air quality was at acceptable levels.

#### **Converting taxis to electric vehicles**

The Chair expressed the hope that taxi drivers would switch to electric vehicles. The Principal Officer (Environment Planning) suggested that this matter should be discussed with the Licensing section.

Councillor Martin Cahn suggested that the air quality targets were not strict enough for a rural area. He also indicated that tyre wear had a major impact on emissions. Th

#### **Improving efficiency of domestic heating**

Councillor Geoff Harvey suggested that air quality could be greatly improved by replacing inefficient home heating systems. The Chair suggested that Building Control be contacted about this matter.

The Chair stated that the Covid-19 pandemic had an impact on the more recent data. The Chair thanked the officers for their report.

### **7. Solar Together Cambridge Update**

The Development Officer, Climate and Environment presented this report, which provided details on the progress in delivering Solar Together Cambridgeshire – the solar pv group-buying scheme led by Cambridgeshire County Council in partnership with Cambridgeshire councils. She reported that 500 households in the District were expected to continue the process to completion.

The Development Officer, Climate and Environment reported that there had been very few complaints from applicants and that she welcomed any individual

feedback. Councillor Martin Cahn suggested that residents needed to be provided with advice on how to read their smart meters.

The Chair suggested that calculations should be done on how many tonnes of Carbon Dioxide the solar panels were saving. She thanked the Development Officer, Climate and Environment for her report.

## **8. Forward Plan and Dates of Next Meetings**

It was noted that the next meeting would be held on 21 September 2021, after the Scrutiny and Overview Committee, to discuss the Local Plan.

The Committee agreed to delay November's meeting by two weeks to Tuesday 23 November at 2pm, due to renovation work being carried out in the Council Chamber.

The Development Officer, Climate and Environment explained that the following items were on the draft agenda for November's meeting:

- Biodiversity SPD
- Proposals for trees protection in the Local Plan
- Zero Carbon Doubling Nature Action Plan Progress Update
- Six Trees Scheme Update
- Net Zero Council Housing Update
- Standing Items of Green Investment Update

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**The Meeting ended at 4.10 p.m.**

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## South Cambridgeshire District Council

Minutes of the Climate and Environment Advisory Committee held on  
Tuesday, 21 September 2021 at 8.25 p.m.

**Vice-Chair in the Chair:** Geoff Harvey

**Vice-Chair:** Dr. Martin Cahn

**Committee Members in attendance:**

Paul Bearpark

**Councillors in attendance:**

Dr. Tumi Hawkins and Bridget Smith

Councillor Cllr Pippa Heylings was in attendance remotely.

**Officers:**

Jonathan Dixon

Paul Frainer

Ian Senior

Liz Watts

Planning Policy Manager

Assistant Director (Strategy & Economy)

Scrutiny and Governance Adviser

Chief Executive

### 1. **Declarations of Interest**

There were no declarations of interest.

### 2. **Greater Cambridge Local Plan - Preferred Options (Regulation 18) - For Consultation**

The Climate and Environment Advisory Committee endorsed comments made during the Scrutiny and Overview Committee meeting immediately before its own meeting. It strongly supported the net zero carbon measures included in the First Proposals and welcomed comments made during the Scrutiny and Overview Committee meeting about flooding and water resilience.

Councillor Paul Bearpark referred to Section 3.1 of Appendix A (Climate Change) and suggested that the Info Graphic would benefit from citing a source. At Section 3.7 (Infrastructure), Councillor Bearpark referred to Policy I/ST on Sustainable transport and connectivity. He requested that the draft Local Plan should frame the Policy around the spatial configuration of development sites, drawing on innovative design and best practice. Councillor Bridget Smith, in attendance as Leader of the Council, urged the Committee to recognise that sustainable travel, such as cycling, should be available throughout the District, and cycle paths should link all South Cambridgeshire villages together.

Regarding Policy BG/GI (Green Infrastructure), Councillor Dr. Martin Cahn noted that the area specific Strategic Initiatives did not include the Boulder Clay area in the South East of South Cambridgeshire as a location for woodland expansion and wildlife enhancements. In response, officers confirmed that the Green Infrastructure opportunities mapping included several district wide initiatives.

Speaking via video link, Councillor Pippa Heylings referred to Policy BG/EO (Providing

and enhancing open spaces). Councillor Heylings suggested that the Local Plan should consider minimum distances people need to travel to access green infrastructure and open space.

Councillor Geoff Harvey stated that Policy GP/CC (Adapting heritage assets to climate change), should not be less enabling for owners of Listed Buildings than the current policy.

The Climate and Environment Advisory Committee recommended that the following changes be made to the First Proposals Plan and supporting documents prior to public consultation:

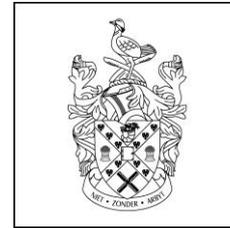
1. For the infographic at the start of the Climate Change Theme, consider citing the source of the data; and
2. For Policy CC/FM: Flooding and integrated water management, strengthen the policy to include additional wording to require that the risk of flooding in the area is not increased because of new development (Councillor Anna Bradnam and Councillor Pippa Heylings to provide proposed wording for consideration).

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**The Meeting ended at 8.45 p.m.**

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# Agenda Item 6



**South  
Cambridgeshire  
District Council**

**REPORT TO:** Climate & Environment Advisory  
Committee

23/11/21

**LEAD CABINET MEMBER:** John Batchelor

**LEAD OFFICER:** Peter Campbell

---

## **Stock Modelling for Zero Carbon and Improvements to energy efficiency across SCDC Housing Stock**

### **Executive Summary**

1. The Business Plan 2020-25 under the heading “Housing that is Affordable for everyone to live in” has the action – Improve the energy efficiency of existing Council housing to reduce carbon impact and running costs.
2. The measures are:
  - Carry out an audit of energy efficiency of existing housing stock relative to zero carbon target by March 2020.
  - Approve a work programme for insulation measures over the next four years to narrow the gap on the zero-carbon target.
3. This report has been written in order to provide an update on actions taken so far.

### **Key Decision:**

4. Yes. The work programmes we will need to take forward will result in the Housing Revenue Account having to support various retrofit works to significantly increase the energy efficiency and reduce carbon emissions in our stock.
5. This work will also have a significant impact on the wellbeing of many of our tenants and leaseholders that currently occupy the Councils housing stock and for future generations.

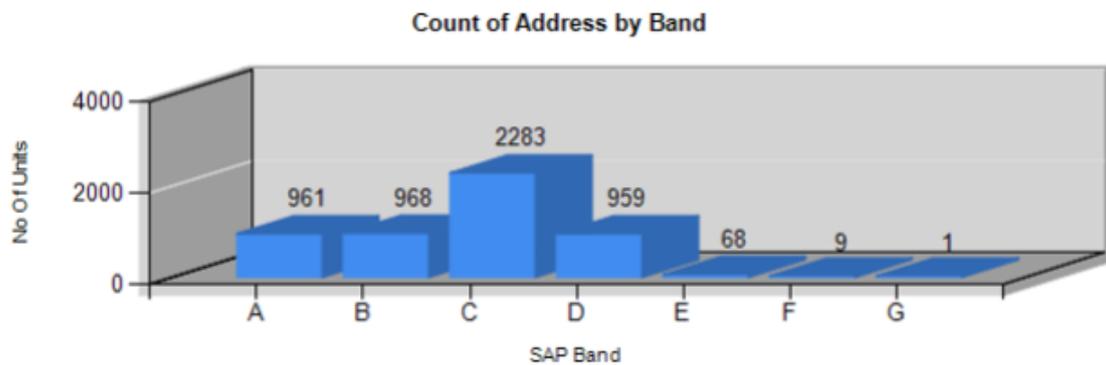
### **Recommendations**

6. To note the actions taken so far and provide any comments or advice.

### **Details**

7. SCDC has already undertaken a considerable amount of energy efficiency related works and has installed solar PV to 2110 dwellings, external wall

insulation to over 870 dwellings and various types of heat pump to 293 dwellings, this includes replacing early generation or failed heat pumps. The majority of pitched roofs are insulated with 250mm or more of loft insulation. In addition we have a programme of window and door replacements. We have upgraded our window replacement specification and are installing triple glazed windows. Our 5250 HRA homes have an average SAP rating of 77.67 . Which places the stock average in the green Band C for EPC rating. The graph below shows the breakdown of properties in each Band.



We have set out a 5-year capital programme that describes how we intend to invest in our stock over the next few years. Measures include, heating system renewal, new doors and windows, topping up loft insulation and cavity wall insulation.

8. In December 2019 we procured the services of Savills to carry out an Energy Audit of our stock. They submitted a final report to us at the beginning of April 2020.
9. The methodology adopted was to model a series of building improvements designed to reduce carbon emissions, against a selected set of property archetypes to determine the cost and the resultant reduction in both energy consumption and carbon emissions.
10. This approach recognises three important factors:
  - a. There is currently insufficient capacity within the electricity grid to support a wholesale shift towards carbon neutral heating, much of which relies on electricity to run the 'pumps' or as backup.
  - b. The shift to being carbon neutral relies on newly emerging technology the cost both install and operate this is currently prohibitive, but will reduce, the equipment will become more reliable, and as equipment becomes more efficient operating costs will fall over time.
  - c. Regardless of the method of heating, most energy efficiency gains can be delivered through a fabric first approach which increases insulation and therefore reduces heat loss within the structure of the building.

11. The Savills report suggested a two stage approach within the strategy for us to achieve our targets, first being reducing energy demand by improving the level of insulation. This includes external walls and internal ground floors. With the second to install alternative heating systems with heat pumps being suggested as the most likely technology to adopt.
12. The estimated budget to become “near zero carbon“ is in the region of £175.6m over the next 30 years. This equates to an average cost of £30,000 per property. If however you take into consideration the level of work contained within the current 30 year delivery programme, the budget requirement reduces to approx. £92m or £17,547 per dwelling.
13. The report goes on to suggest a series of actions that should be taken forward over the next 4-5 Years. These include
  - Model the stocks net present value to determine financial performance in light of the zero carbon standard and confirm the long term future to support the levels of investment required.
  - Review difficult to treat properties – a proportion of the stock will not be physically suitable to install heat pumps or external wall insulation.
  - Explore and trial technical solutions across building archetypes to ensure suitability and affordability.
  - Embark on the implementation of improvement measures to selected sustainable pilot properties / blocks / estates that reflect the wider agreed strategy.
  - Consult with Tenants and Leaseholders
14. In light of the recommended actions in the Savills report we procured a further contract with a company called Liberty named NetZero Co2 Collective. This is a collaborative project with several landlords of social housing across the Country and Southampton University Dept Climate Change. The project has two key aims – determine the most cost-effective way to retrofit properties and deliver “netzero” and identify how the delivery of decarbonisation of properties at scale can maximise economic regeneration in local communities.
15. We agreed to contribute 5 properties towards this project. In November 2020 data loggers and smart meters were fitted to each property, so that energy consumption, temperature values and humidity levels could be monitored, over a set period of time. The data collected was assessed by Southampton University over the summer months so that retrofit options and associated carbon savings could be modelled. A Decarbonisation Action Plan for each property was presented to us in August. I have attached two copies of these plans in the appendix for information. We are now working with Netzero to agree specific works, costings, tenant consultation and timeframes for fitting the measures that have been specified. Once installed the data loggers and smart meters will monitor the performance of the renewable technologies over the next two years.

16. The outputs of the project will allow us to model future cost and returns of specific renewable technology based upon actual performances and manufactures predictions.
17. They will also help us understand the limitations of each technology, physical, performance and financial requirements. And asses the carbon impact of each technology.
18. In addition to these recommendations we are also pressing ahead with our own internal actions. These are as follows:
  - We completed a desktop exercise to review what we know about the 78 properties within our stock that have an EPC rating of E, F and G. This determined that investment in these properties had been limited due to tenants refusing to allow improvements works to be carried out.
  - We had intended to carry out fresh stock condition surveys across these 78 properties, and speak to the existing tenants in an effort to understand the barriers that have prevented us from investing in them in the past. The Coronavirus pandemic has put this work on hold.
  - When any of these properties become empty, we will carry out improvements works taking account of recommendations made in the Savills report and the Netzero project. (This also includes Band D properties)
  - We will procure external consultants to carry out a stock condition survey across the whole of our stock in the new financial year which will allow us to develop a new 30 year investment plan.
  - Complete our refreshed Asset Management Strategy and publish in 2022
  - Continue to work with tenants to support education programmes around energy efficiency - energy tariffs, smart metering, energy saving lightbulbs, ventilation etc.
  - Continue to look at external funding opportunities from Central Government to support retrofit works to social housing.
  - Complete Internal Wall Insulation Works (IWI) to two non-traditional style properties and use this as a pilot project to inform further improvements works to similar style properties.
  - Complete the investment grade proposal to fit solar panels, battery storage, improved insulation works, energy saving lighting and EVCP's at Elm Court Over
  - Complete External Wall Insulation and Window replacement to two blocks of flats in Teversham and Fen Ditton.

## **Implications**

19. It's clear from the outcomes of the Savills report and the recommendations it contains, that there are significant financial implications to achieve the zero carbon standard. There will also be a lot of work ahead to consult and educate

or tenants and leaseholders about the type of retrofit works we want to complete and how this will effect how homes are heated.

#### **Financial**

20. See above. The overall cost of the work that Savills are recommending is in the region of £177m over the next 30 years. This will have a significant impact on the HRA.

#### **Legal**

21. See above.

#### **Staffing**

22. We need to consider whether it is necessary to recruit additional officers that have experience of procuring, implementing and managing large contracts to work alongside existing colleagues in our asset management team.

#### **Risks/Opportunities**

23. See above

#### **Equality and Diversity**

24. See above

#### **Climate Change**

25. See above – We will need to ensure climate change improvements are captured as a result of the work programmes that are being recommended.

#### **Consultation responses**

26. N/A

#### **Growing local businesses and economies**

27. As suggested by a model adopted in the City of Manchester there are likely to be opportunities to stimulate the local market through the award of retrofit contracts.

#### **Housing that is truly affordable for everyone to live in**

28. Increasing energy efficiency in our homes and fitting modern renewal technology will increase the opportunities for our tenants to reduce their energy bills making our properties more affordable.

#### **Being green to our core**

29. The retrofit programme that has been recommended will help us move towards zero carbon in our housing stock.

**A modern and caring Council**

30. We will need to consider carefully how we approach conversations with our more vulnerable and elderly tenants that will not want to have the intrusion or inconvenience of contractors coming into their home to complete improvement works.

Background Papers

Netzero – Decarbonisation Action Plans

Report Author: Geoff Clark Neighbourhood Services Manager

Telephone: (01954) 713035

# Property DecarbonisACTION plan

3 Great Close,  
Great Shelford,  
CB23 7BH

[netzerocollective.co.uk](http://netzerocollective.co.uk)

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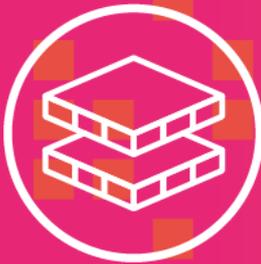


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# Property DecarbonisACTION plan

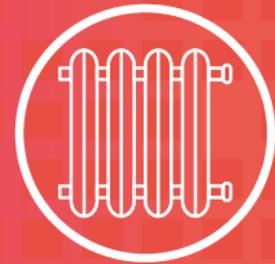
After an in-depth survey and a period of energy use analysis, we recommend that this property is retrofitted with the following measures:



Loft insulation  
Relay



Air source heat  
pump



Upgraded  
radiators



Battery storage

Our modelling suggests that this property will need:

- Air source heat pump to reach a minimum SCOP of 3.87 at 45°C flow temperature, domestic hot water cylinder and oversized radiators
- 4kW smart battery storage
- Loft insulation relay to reach a maximum u-value of 0.18W/m<sup>2</sup>K

This will achieve:

- **125% reduction** against current building performance, saving 39 tons of CO<sub>2</sub> by 2050
- A saving for the tenant of an estimated £558 per annum (assuming use of agile tariffs)

# Property analysis



## Methodology

An in-depth property survey was conducted using current energy retrofit survey standards including PAS2035, SAP and MIS 3005. The property has been fitted with monitoring equipment capturing electricity usage, temperature, and humidity data alongside gas meter readings.

The outputs of the survey and monitoring have been passed to the University of Southampton (UoS) Department of Climate Change, Energy & Buildings to model retrofit options and the associated carbon savings. The UoS has established a bespoke model using TRNSYS software, specifically tailored to forecasting the impact of retrofit measures including, but not limited to: heat pumps, solar PV and energy efficiency improvements. The methodology analyses the impacts of each measure on carbon reduction and running cost against a 'business as usual' scenario where no upgrades to the property were made other than works that would be carried out as part of regular servicing and cyclical replacement programmes.

**Current site data** (Table 1)

Age	Type	Floor area m <sup>2</sup>	EPC rating
1950-1966	2 bed Semi-detached bungalow	61	B
Space heating demand kWh pa	Water heating demand kWh	Monitored electricity use kWh	Monitored gas use
6466	1808	8,400	n/a
Space heating demand kWh m <sup>2</sup> pa	Space and water heating system	Secondary heating	Flow temperature
106	High heat retention storage heaters and hot water cylinder	none	n/a

# Electrical generation capacity



The property has a south-east facing roof with limited shading. We estimate the roof area available is 35 m<sup>2</sup>, which if fully covered would be a 4.67 kWp PV system. A system of 4kWp already exists at 3 Great Close.

A 4 kWp PV system has been modelled on a 35 degree slope facing South-West (Irradiance 1,088 kWh/m<sup>2</sup> annum, yield 928 kWh/kWp). The annual generation is predicted at 3,712kWh.

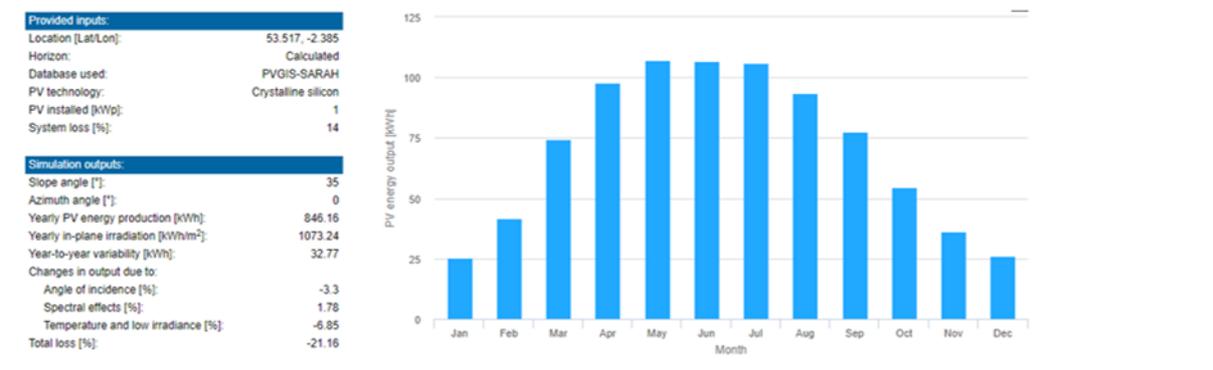


Figure 1 – Example PV energy output chart

It is anticipated that without storage options (due to mismatch between generation and electrical demand) 62% of this will be exported to the grid.

## Energy Storage

With the installation of an energy storage solution the level of PV export falls to 44%. The most suitable energy storage system has been calculated to be a 4kw battery. The modelling accounts for battery cycling to avoid import from the grid and battery recharging from excess PV which would otherwise be exported for no payment.

Although space within the main property is limited there may be space within the external store for the installation of a battery storage system.

# Heating and hot water demand load



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## Heat emitter upgrades

The property's current heat emitters are made up of high heat retention storage heaters. These would require replacing with a low temperature wet system accommodate an air source heat pump.

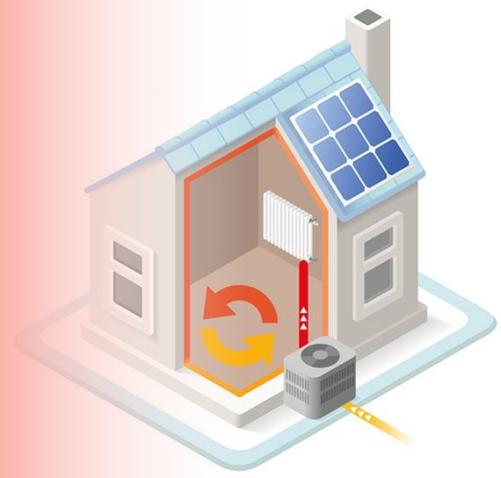
## Heat pump options

There are available locations at the side or rear of the property to site an air source heat pump. We believe the best option for location of a heat pump is at the side of the property. This is located far enough from adjacent properties and bedrooms to reduce any potential noise nuisance issues.

Although space is limited, there may be space within the cylinder cupboard or external store for a slimline thermal store.



# Heating technology performance



Having developed the building profiles, we consulted extensively with heat pump manufacturers and installers to identify the optimum types of heat pump and heating systems. We have selected specific technologies that would be suitable for overcoming the unique challenges of each installation.

To understand the likely performance of the heat pump in-situ we used reported MCS seasonal co-efficient of performance (SCOP) data for the predicted flow temperatures required for the property.

The performance of all technologies will be remotely monitored during operation to confirm actual in-home performance. The NetZero Collective monitoring equipment already in the property will be re-commissioned alongside the new measures and remain in situ for a minimum of two years.

Based on this analysis we recommend a heat pump that achieves minimum SCOP of at 3.87 at 45°C flow temperature.

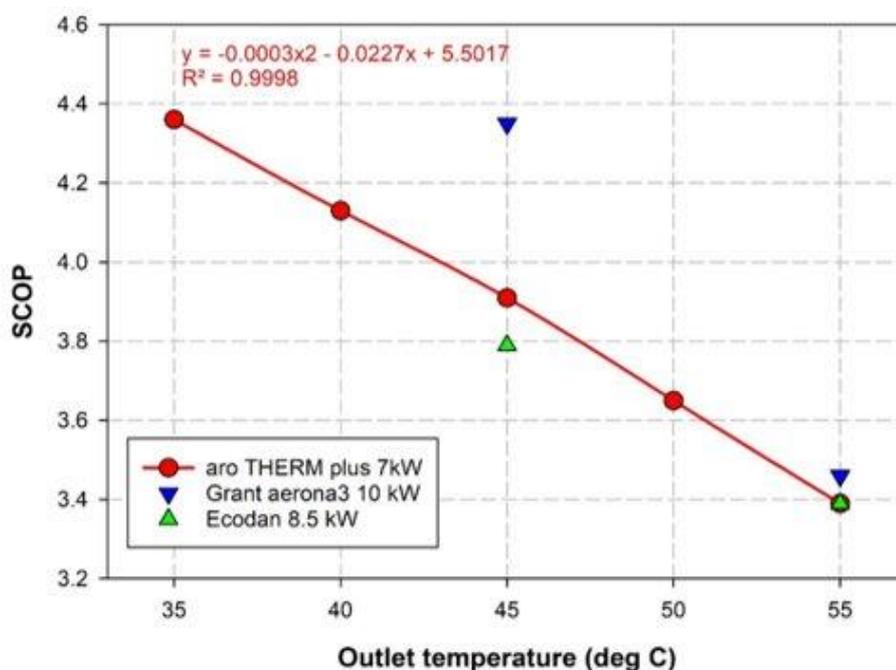


Figure 2 – Seasonal Co-efficient of Performance against outlet temperature for selected ASHP models

# Damp and condensation

The relative humidity (RH) of the property has been monitored over the winter period and analysis has shown no recorded condensation risk events were recorded where RH was above 80% and therefore the property is not seen as high risk.

<b>% RH bin</b>	<b>No. 1 minute readings Bedroom</b>	<b>No. 1 minute readings Lounge</b>
<=10	0	0
>10..<=20	0	0
>20..<=30	165	115
>30..<=40	3245	1217
>40..<=50	83440	32752
>50..<=60	53989	105998
>60..<=70	1096	1894
>70..<=80	0	0
>80..<=90	0	0
>90..<=100	0	0

Table 3 – relative humidity monitoring data

# Property fabric



The property is assumed to be of timber frame construction with partially insulated walls and has 250mm loft insulation. This indicates adequate thermal fabric efficiency and airtightness. However, there are many areas of uneven loft insulation that would benefit from a relay. It is recommended that loft insulation be relayed across the whole roof space to maximum u value of  $0.18\text{W/m}^2$ . In addition the use of a boarded walkway and task lighting would allow access to PV inverter without disturbing the loft insulation in the future.



Figure 4 – Missing loft insulation under tank at 43 Macaulay

# Resident behaviour and education



How people control and use energy in the home is a crucial factor in reducing energy consumption and cost. The Missing Quarter report (produced by AGMA) estimated this factor as contributing at least 25% towards any target.

Action to encourage households to change behaviour is an essential component of any plan to reduce carbon and address fuel poverty. Time should be taken to ensure residents using new technologies fully understand the most effective way to operate them. This includes offering easy user guides and assistance on finding the most appropriate tariffs.

The current tenant shows monitored electricity usage of 8,400 kWh. Note that this value includes heat supply as well as appliances and lighting, as 3 Great Close has electric heating, hot water supply and showers. Monitored temperature data shows the tenant living at 25.3°C in the living and room and 25.5°C in the bedroom these figures are significantly higher than would be modeled under sap conditions and therefore actual cost may be higher than modeled without additional behavior change.

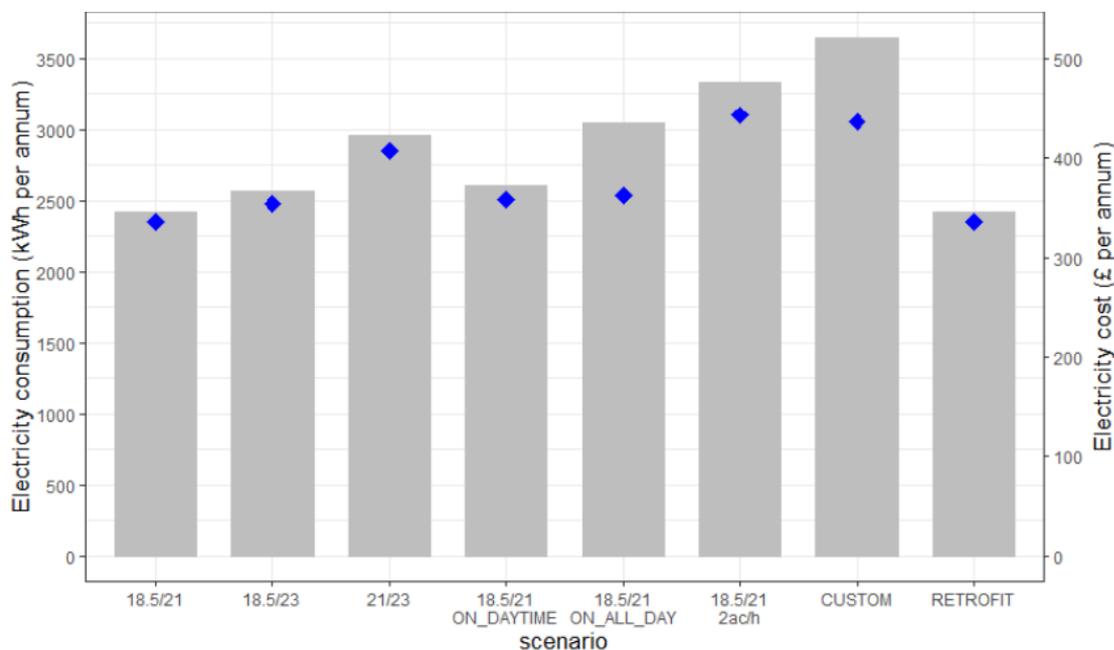


Figure 5 – modelled environmental scenarios for electricity consumption and cost, this excludes the benefit of PV in the kWh calculation (-3712 kWh per annum).

# Risk and mitigation



The survey identified the building fabric in good state of repair with no known water penetration, damp or structural defects. There were no identified risks in regards to the proposed measures, however, the installation phase will conduct further measure-specific risk assessments.

The installation of the energy efficiency measures recommended in this report should be carried out in accordance with PAS 2030/35; where low carbon technologies within the scope of the MCS are specified (Solar PV & ASHP), the installation of those systems should be carried out in accordance with the applicable MCS standards.



Figure 6 – PAS2035 Process

# Design and costing



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## Initial CAPEX costs

We estimated the costs of measures by:

1. Developing costing models for each building in collaboration with our supply and install partners.
2. Using industry experience to estimate days required for design, installation and commissioning of systems.
3. Obtaining indicative costs from manufacturers and installers for relevant system configurations.

## OPEX costs

Annual servicing: an essential aspect of maintaining good performance for both heat pumps and gas boilers. Therefore, our cost assumption is that all technologies are serviced annually. Our installers have provided reliable data on annual service costs.

Lifecycle: a key factor in the costs analysis is the rate at which capital equipment must be replaced within a 30-year time period. We use standard lifetimes for each technology based on industry experience and information provided in CIBSE guidance. The following lifecycle assumptions are used:

- Gas boiler: 12 years
- Air Source Heat Pump: 15 years
- Ground Source Heat Pump: 20 years
- Closed ground loops: 50 years

It was assumed that all or a proportion of capital equipment would require replacing at these intervals. Where capital equipment is to be replaced, installation costs are typically assumed to be lower initial installation. This is because the additional work of transforming the heating system would not be necessary the second time around e.g. installing new pipework and larger radiators.

To calculate fuel bills, we use standard rates for electricity and gas alongside agile tariff rates from Octopus energy, all reviewed by University of Southampton.

For buildings with low heat use, the standing charge can make a significant proportion of the overall fuel bills and the potential to remove the gas standing charge can be a significant benefit of installing a heat pump.

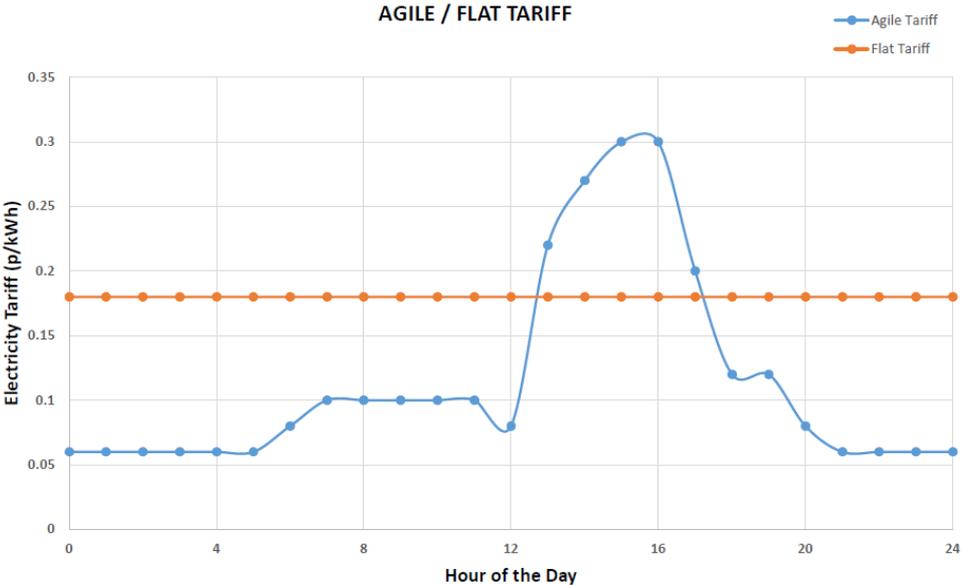


Figure 7 – Example hourly electricity tariffs

# Funding opportunities



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## **Renewable Heat Incentive (RHI)**

Renewable Heat Incentive payments are based on the deemed proportion of renewable heat produced by a renewable heating technology. It is calculated using the property's EPC rating and the efficiency of the technology installed. Payments have been based on current domestic RHI tariffs paid over 7 years as of the date of this report, currently available EPC from a neighbouring property and technology efficiencies stated in Table 2. (A new EPC will need to be lodged to be eligible for RHI funding)

## **Energy Company Obligation (ECO)**

Due to the property being EPC rated D or higher there is no available ECO funding.

## **Social housing decarbonisation fund (SHDF)**

Depending on the delivery timescales of the recommended measures, it may be possible to apply for SHDF funding towards the cost of some or all of the measures recommended. However, the next round of bidding has yet to be announced and therefore has not been included within the report.

## **Green Homes Grant: Local Authority Delivery (LAD)**

Depending on the local authority area it may be possible to access LAD funding. However, as the local authority has not been approached this funding has not been included within the report.

## **Demand side response**

Utilising smart battery storage technologies may allow asset owners to access income by providing demand side or firm frequency response services to the grid. However, the aggregated domestic market in this area is still very new and therefore has not been included within this report.

# Summary

Under the retrofit scenario laid out total carbon emissions could be cut by over **125%** excluding appliance usage with no increase in lifetime costs from a business as usual scenario (when tenant bills are taken into account).

 <p><b>CO2 savings</b></p>	<p>Under a business as usual scenario, this property is predicted to emit 39t CO<sub>2</sub> cumulatively by 2050. By retrofitting the property with recommended measures could deliver significant CO<sub>2</sub> savings of 125%, excluding appliance electricity usage.</p>
 <p><b>Fuel bills</b></p>	<p>Fuel bills are predicted to decrease by <b>61%</b> under the retrofit scenario. The saving is built on the efficient heat pump, solar PV generation, resident switch to agile tariff and removal of the gas standing charge from the property.</p>
 <p><b>Operating costs</b></p>	<p>When annual services are factored in, overall operating costs are similar to gas systems due to the simpler checks required and engineer skills shortages. However, the service costs for heat pumps could be expected to fall over time as the market develops.</p>
 <p><b>Lifetime costs</b></p>	<p>Under the retrofit scenario, lifetime costs are marginally better than the BAU lifetime costs when all grants and tenant savings are accounted for across a 15 year period.</p>

## Appendix 1: Costed retrofit proposal

Retrofit scenario (Table 2)				
		Existing system	NetZero Collective recommendation	Cost* (£)
<b>packages of retrofit measures</b>	heating technology installed	no upgrades	air source heat pump and thermal store	£7,500
	Solar	none	none	£0
	Fabric upgrades	none	loft insulation	£500
	Fabric upgrades	none	none	0
	Storage	none	battery storage	£4,500
<b>energy performance</b>	EPC	B	B	
<b>system design</b>	Flow temp (c)	75	45	
	Efficiency	0.89	3.87	
<b>co2 emissions</b>	cumulative T by 2030	9.63	-2.502	
	cumulative T by 2050	31.03	-8.062	
<b>CAPEX</b>		0	£12,500	
<b>Funding</b>	RHI	0	£4,675	7 Years
	ECO	0	N/A	
	other	0		
<b>CAPEX Sub-Total</b>			<b>£7,825</b>	
				<b>Saving (£)</b>
<b>OPEX</b>	Tenant fuel bill	902	£344	£558
	Service	110	£110	£0
lifetime costs including fuel bills	15 year	£17,180	£14,635	£2,545
	30 year	£34,360	£25,445	£8,915
lifetime costs excluding fuel bills	15 year	£3,650	£9,475	-£5,825
	30 year	£7,300	£14,125	-£6,825

\*All costs based on estimates, actual cost may differ.

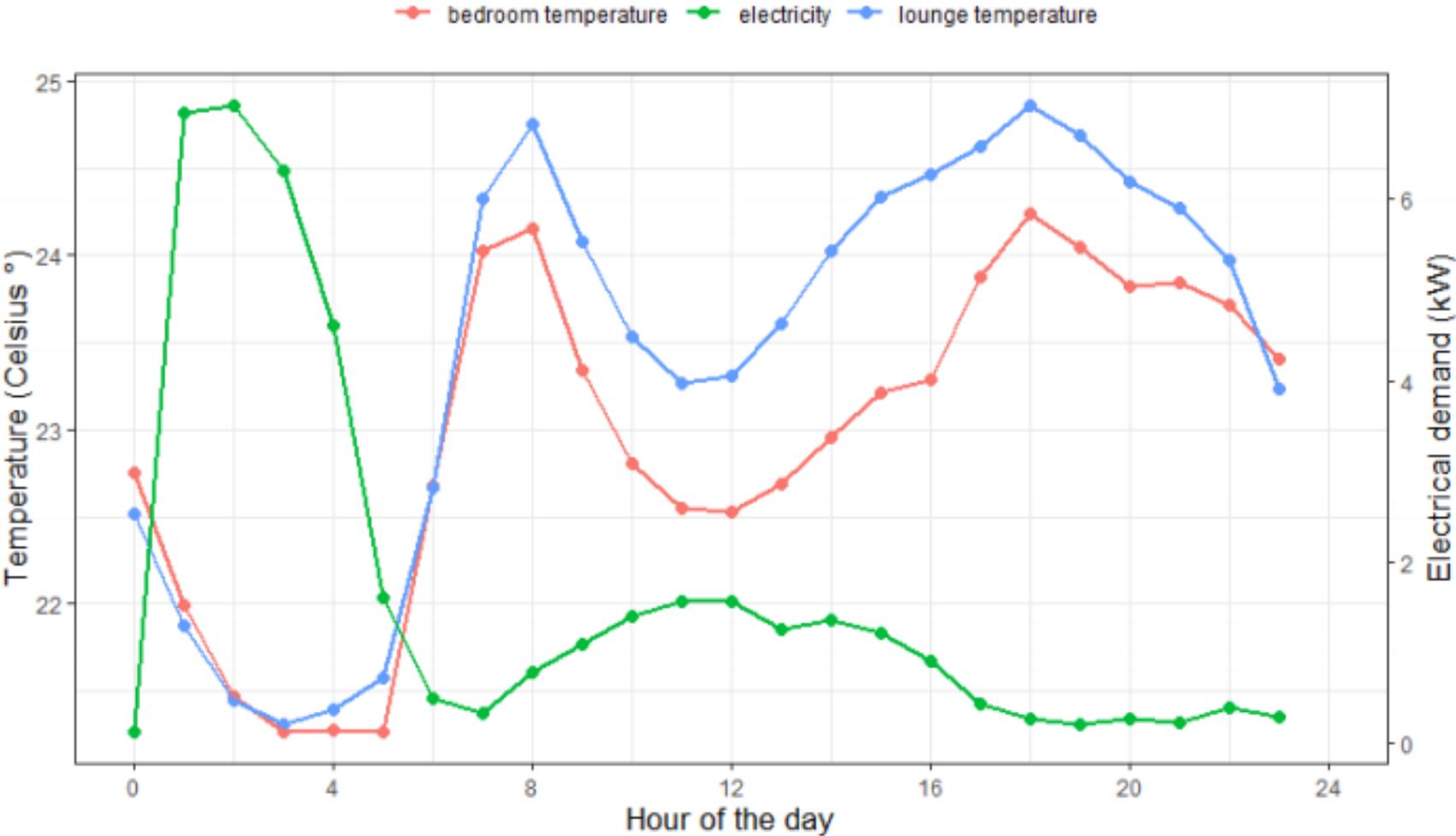
Appendix 2: Floor Plan

GROUND FLOOR



Appendix 3: Monitoring Data

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# Property DecarbonisACTION plan

43 Macaulay Ave,  
Great Shelford,  
CB22 5AE

[netzerocollective.co.uk](http://netzerocollective.co.uk)

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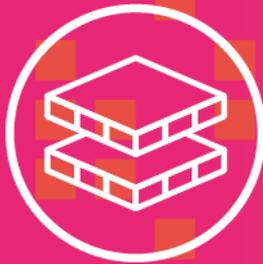


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# Property DecarbonisACTION plan

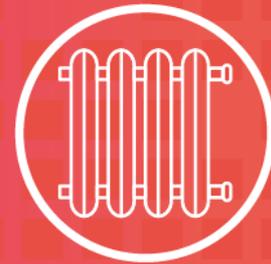
After an in-depth survey and a period of energy use analysis, we recommend that this property is retrofitted with the following measures:



Loft insulation  
Relay



Air source heat  
pump



Upgraded  
radiators



Solar PV



Battery storage

Our modelling suggests that this property will need:

- Air source heat pump to reach a minimum SCOP of 3.87 at 45°C flow temperature, domestic hot water cylinder and oversized radiators
- 4kW smart battery storage
- Loft insulation relay to reach a maximum u-value of 0.18W/m<sup>2</sup>K

This will achieve:

- **98% reduction** against current building performance, saving 58.32 tons of CO<sub>2</sub> by 2050
- A saving for the tenant of an estimated £543 per annum (assuming use of agile tariffs)

# Property analysis



## Methodology

An in-depth property survey was conducted using current energy retrofit survey standards including PAS2035, SAP and MIS 3005. The property has been fitted with monitoring equipment capturing electricity usage, temperature, and humidity data alongside gas meter readings.

The outputs of the survey and monitoring have been passed to the University of Southampton (UoS) Department of Climate Change, Energy & Buildings to model retrofit options and the associated carbon savings. The UoS has established a bespoke model using TRNSYS software, specifically tailored to forecasting the impact of retrofit measures including, but not limited to: heat pumps, solar PV and energy efficiency improvements. The methodology analyses the impacts of each measure on carbon reduction and running cost against a 'business as usual' scenario where no upgrades to the property were made other than works that would be carried out as part of regular servicing and cyclical replacement programmes.

**Current site data** (Table 1)

Age	Type	Floor area m <sup>2</sup>	EPC rating
1950-1966	2 bed Semi-detached house	65	C
Space heating demand kWh pa	Water heating demand kWh	Monitored electricity use	Monitored gas use
6337	1802	3,384	n/a
Space heating demand kWh m <sup>2</sup> pa	Space and water heating system	Secondary heating	Flow temperature
97.4	Gas combi boiler, and radiators (double/ single convector)	none	Unknown - assumed 75°C

# Electrical generation capacity



The property has a south-east facing roof with limited shading. We estimate the roof area available is 19.2 m<sup>2</sup>, which if fully covered would be a 2.56 kWp PV system. A system of 2.5kWp is proposed for 43 Macaulay Avenue.

A 2.5 kWp PV system has been modelled on a 35 degree slope facing South-East (Irradiance 1,093 kWh/m<sup>2</sup> annum, yield 933 kWh/kWp). The annual generation is predicted at 2,334 kWh.

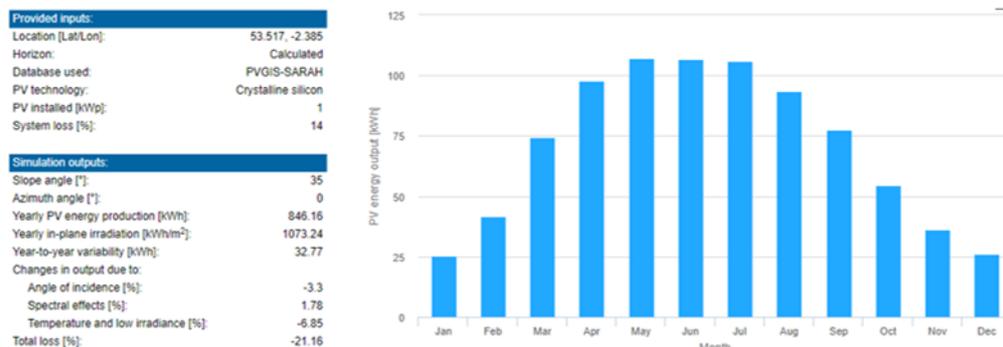


Figure 1 – Example PV energy output chart

It is anticipated that without storage options (due to mismatch between generation and electrical demand) 48% of this will be exported to the grid.

## Energy Storage

With the installation of an energy storage solution the level of PV export falls to 20%. The most suitable energy storage system has been calculated to be a 4kw battery. The modelling accounts for battery cycling to avoid import from the grid and battery recharging from excess PV which would otherwise be exported for no payment.

Although space within the main property is limited there may be space within the utility room for the installation of a battery storage system.

# Heating and hot water demand load



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## Heat emitter upgrades

The property's current radiators are a mixture of single and double panel convactor radiators. These would most likely require to be oversized to accommodate lower flow temperatures provided by an efficiently operating heat pump.

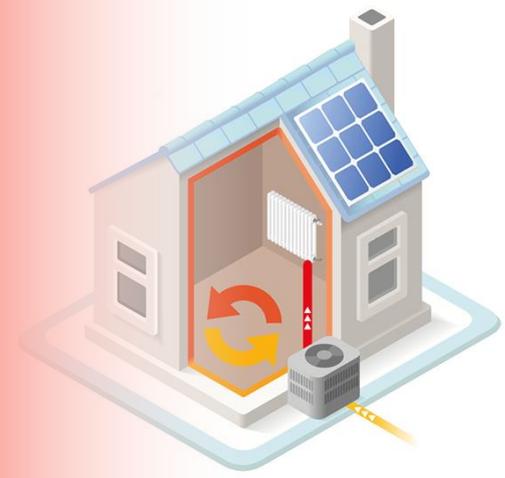
## Heat pump options

There are available locations at the rear of the property to site an air source heat pump. We believe the best options for location of a heat pump are adjacent to the rear living room window. This is located far enough from adjacent properties and bedrooms to reduce any potential noise nuisance issues.

Although space is limited, there is space within the utility room or cylinder cupboard for an unvented cylinder.



# Heating technology performance



Having developed the building profiles, we consulted extensively with heat pump manufacturers and installers to identify the optimum types of heat pump and heating systems. We have selected specific technologies that would be suitable for overcoming the unique challenges of each installation.

To understand the likely performance of the heat pump in-situ we used reported MCS seasonal co-efficient of performance (SCOP) data for the predicted flow temperatures required for the property.

The performance of all technologies will be remotely monitored during operation to confirm actual in-home performance. The NetZero Collective monitoring equipment already in the property will be re-commissioned alongside the new measures and remain in situ for a minimum of two years.

Based on this analysis we recommend a heat pump that achieves minimum SCOP of at 3.87 at 45°C flow temperature.

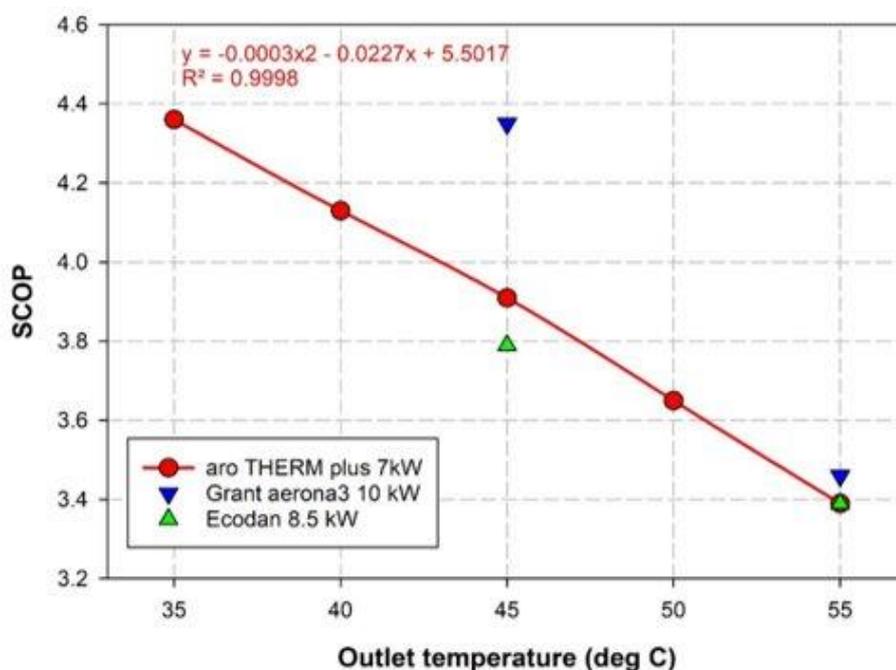


Figure 2 – Seasonal Co-efficient of Performance against outlet temperature for selected ASHP models

# Damp and condensation

The relative humidity (RH) of the property has been monitored over the winter period and analysis has shown no recorded condensation risk events were recorded where RH was above 80% and therefore the property is not seen as high risk.

<b>% RH bin</b>	<b>No. 1 minute readings Bedroom</b>	<b>No. 1 minute readings Lounge</b>
<=10	0	0
>10..<=20	0	0
>20..<=30	0	19959
>30..<=40	0	82182
>40..<=50	27221	37704
>50..<=60	104638	8
>60..<=70	7990	0
>70..<=80	0	33
>80..<=90	0	4
>90..<=100	0	0

Table 3 – relative humidity monitoring data

# Property fabric



The property shows evidence of cavity wall insulation and has 250mm loft insulation. This indicates above average thermal fabric efficiency and airtightness. However, there are many areas of uneven loft insulation that would benefit from a relay and the roof space above the utility roof is uninsulated. It is recommended that loft insulation be relayed across the whole roof space to maximum u value of  $0.18\text{W/m}^2$ .



Figure 4 – Missing loft insulation under tank at 43 Macaulay

# Resident behaviour and education



How people control and use energy in the home is a crucial factor in reducing energy consumption and cost. The Missing Quarter report (produced by AGMA) estimated this factor as contributing at least 25% towards any target.

Action to encourage households to change behaviour is an essential component of any plan to reduce carbon and address fuel poverty. Time should be taken to ensure residents using new technologies fully understand the most effective way to operate them. This includes offering easy user guides and assistance on finding the most appropriate tariffs.

The current tenant is a slightly higher than average electricity user and lives at 25.1°C in the living and room and 23.8°C in the bedroom these figures are significantly higher than what would be modeled under sap conditions and therefore actual cost may be higher than modeled without additional behavior change.

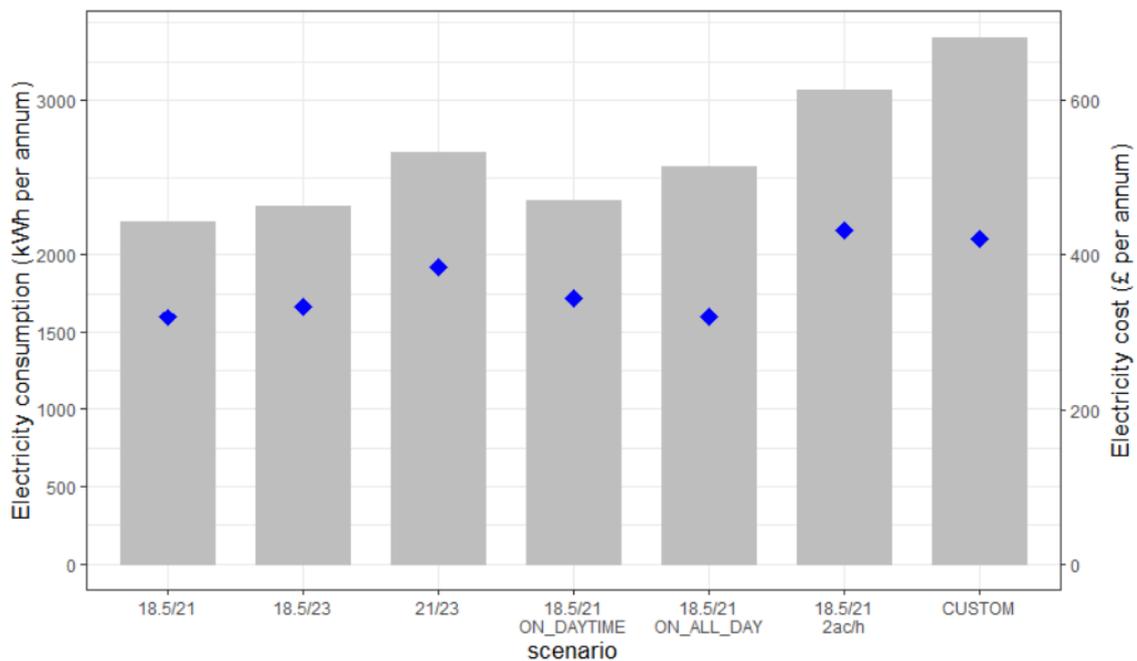


Figure 5 – modelled environmental scenarios for electricity consumption and cost, this excludes the benefit of PV in the kWh calculation (-2334 kWh per annum).

# Risk and mitigation



The survey identified the building fabric in good state of repair with no known water penetration, damp or structural defects. There were no identified risks in regards to the proposed measures, however, the installation phase will conduct further measure-specific risk assessments.

The installation of the energy efficiency measures recommended in this report should be carried out in accordance with PAS 2030/35; where low carbon technologies within the scope of the MCS are specified (Solar PV & ASHP), the installation of those systems should be carried out in accordance with the applicable MCS standards.



Figure 6 – PAS2035 Process

# Design and costing



---

## Initial CAPEX costs

We estimated the costs of measures by:

1. Developing costing models for each building in collaboration with our supply and install partners.
2. Using industry experience to estimate days required for design, installation and commissioning of systems.
3. Obtaining indicative costs from manufacturers and installers for relevant system configurations.

## OPEX costs

Annual servicing: an essential aspect of maintaining good performance for both heat pumps and gas boilers. Therefore, our cost assumption is that all technologies are serviced annually. Our installers have provided reliable data on annual service costs.

Lifecycle: a key factor in the costs analysis is the rate at which capital equipment must be replaced within a 30-year time period. We use standard lifetimes for each technology based on industry experience and information provided in CIBSE guidance. The following lifecycle assumptions are used:

- Gas boiler: 12 years
- Air Source Heat Pump: 15 years
- Ground Source Heat Pump: 20 years
- Closed ground loops: 50 years

It was assumed that all or a proportion of capital equipment would require replacing at these intervals. Where capital equipment is to be replaced, installation costs are typically assumed to be lower initial installation. This is because the additional work of transforming the heating system would not be necessary the second time around e.g. installing new pipework and larger radiators.

To calculate fuel bills, we use standard rates for electricity and gas alongside agile tariff rates from Octopus energy, all reviewed by University of Southampton.

For buildings with low heat use, the standing charge can make a significant proportion of the overall fuel bills and the potential to remove the gas standing charge can be a significant benefit of installing a heat pump.

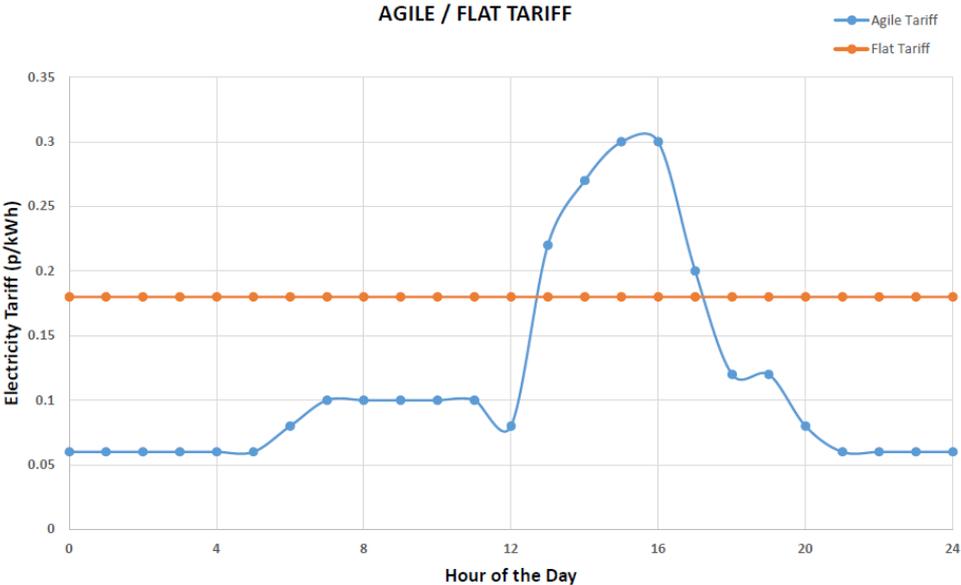


Figure 7 – Example hourly electricity tariffs

# Funding opportunities



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## **Renewable Heat Incentive (RHI)**

Renewable Heat Incentive payments are based on the deemed proportion of renewable heat produced by a renewable heating technology. It is calculated using the property's EPC rating and the efficiency of the technology installed. Payments have been based on current domestic RHI tariffs paid over 7 years as of the date of this report, currently available EPC from a neighbouring property and technology efficiencies stated in Table 2. (A new EPC will need to be lodged to be eligible for RHI funding)

## **Energy Company Obligation (ECO)**

Due to the property being EPC rated D or higher there is no available ECO funding.

## **Social housing decarbonisation fund (SHDF)**

Depending on the delivery timescales of the recommended measures, it may be possible to apply for SHDF funding towards the cost of some or all of the measures recommended. However, the next round of bidding has yet to be announced and therefore has not been included within the report.

## **Green Homes Grant: Local Authority Delivery (LAD)**

Depending on the local authority area it may be possible to access LAD funding. However, as the local authority has not been approached this funding has not been included within the report.

## **Demand side response**

Utilising smart battery storage technologies may allow asset owners to access income by providing demand side or firm frequency response services to the grid. However, the aggregated domestic market in this area is still very new and therefore has not been included within this report.

# Summary

Under the retrofit scenario laid out total carbon emissions could be cut by over **98%** excluding appliance usage with no increase in lifetime costs from a business as usual scenario (when tenant bills are taken into account).

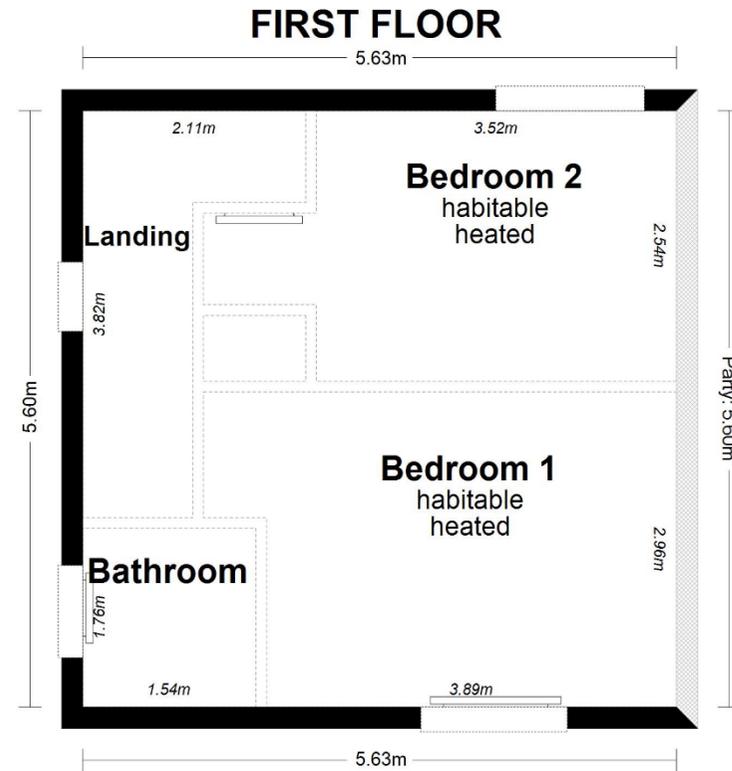
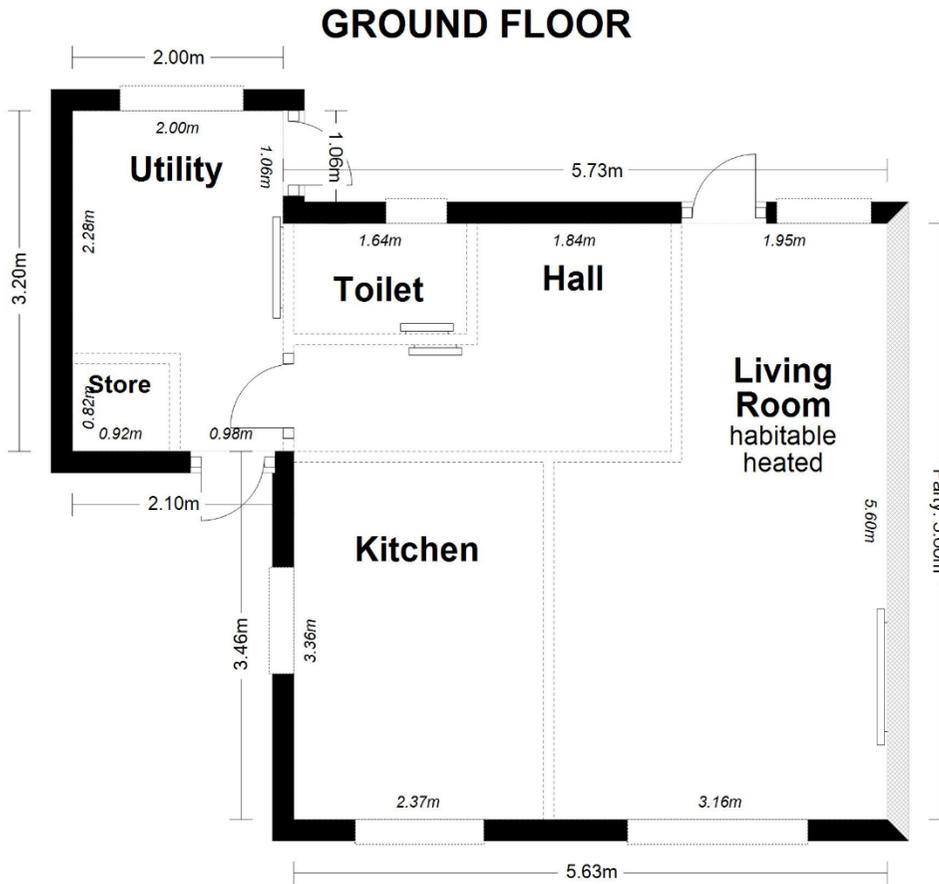
 <p><b>CO2 savings</b></p>	<p>Under a business as usual scenario, this property is predicted to emit 52.8t CO<sub>2</sub> cumulatively by 2050. By retrofitting the property with recommended measures could deliver significant CO<sub>2</sub> savings of 98%, excluding appliance electricity usage.</p>
 <p><b>Fuel bills</b></p>	<p>Fuel bills are predicted to decrease by <b>58%</b> under the retrofit scenario. The saving is built on the efficient heat pump, solar PV generation, resident switch to agile tariff and removal of the gas standing charge from the property.</p>
 <p><b>Operating costs</b></p>	<p>When annual services are factored in, overall operating costs are similar to gas systems due to the simpler checks required and engineer skills shortages. However, the service costs for heat pumps could be expected to fall over time as the market develops.</p>
 <p><b>Lifetime costs</b></p>	<p>Under the retrofit scenario, lifetime costs are marginally better than the BAU lifetime costs when all grants and tenant savings are accounted for across a 30 year period.</p>

## Appendix 1: Costed retrofit proposal

Retrofit scenario (Table 2)				
		Existing system	NetZero Collective recommendation	Cost* (£)
<b>packages of retrofit measures</b>	heating technology installed	no upgrades	air source heat pump and thermal store	£7,500
	Solar	none	2.5kw PV	£3,000
	Fabric upgrades	none	loft insulation	£500
	Fabric upgrades	none	none	0
	Storage	none	Battery Storage	£4,500
<b>energy performance</b>	EPC	C	B	
<b>system design</b>	Flow temp (c)	75	45	
	Efficiency	0.89	3.87	
<b>co2 emissions</b>	cumulative T by 2030	16.758	0.3465	
	cumulative T by 2050	53.998	1.1165	
<b>CAPEX</b>		0	£15,500	
<b>Funding</b>	RHI	0	£4,812	7 Years
	ECO	0	N/A	
	other	0		
<b>CAPEX Sub-Total</b>			<b>£10,688</b>	
				<b>Saving (£)</b>
<b>OPEX</b>	Tenant fuel bill	931	£388	£543
	Service	110	£110	£0
lifetime costs including fuel bills	15 year	£17,615	£18,158	-£543
	30 year	£35,230	£29,628	£5,602
lifetime costs excluding fuel bills	15 year	£3,650	£12,338	-£8,688
	30 year	£7,300	£16,988	-£9,688

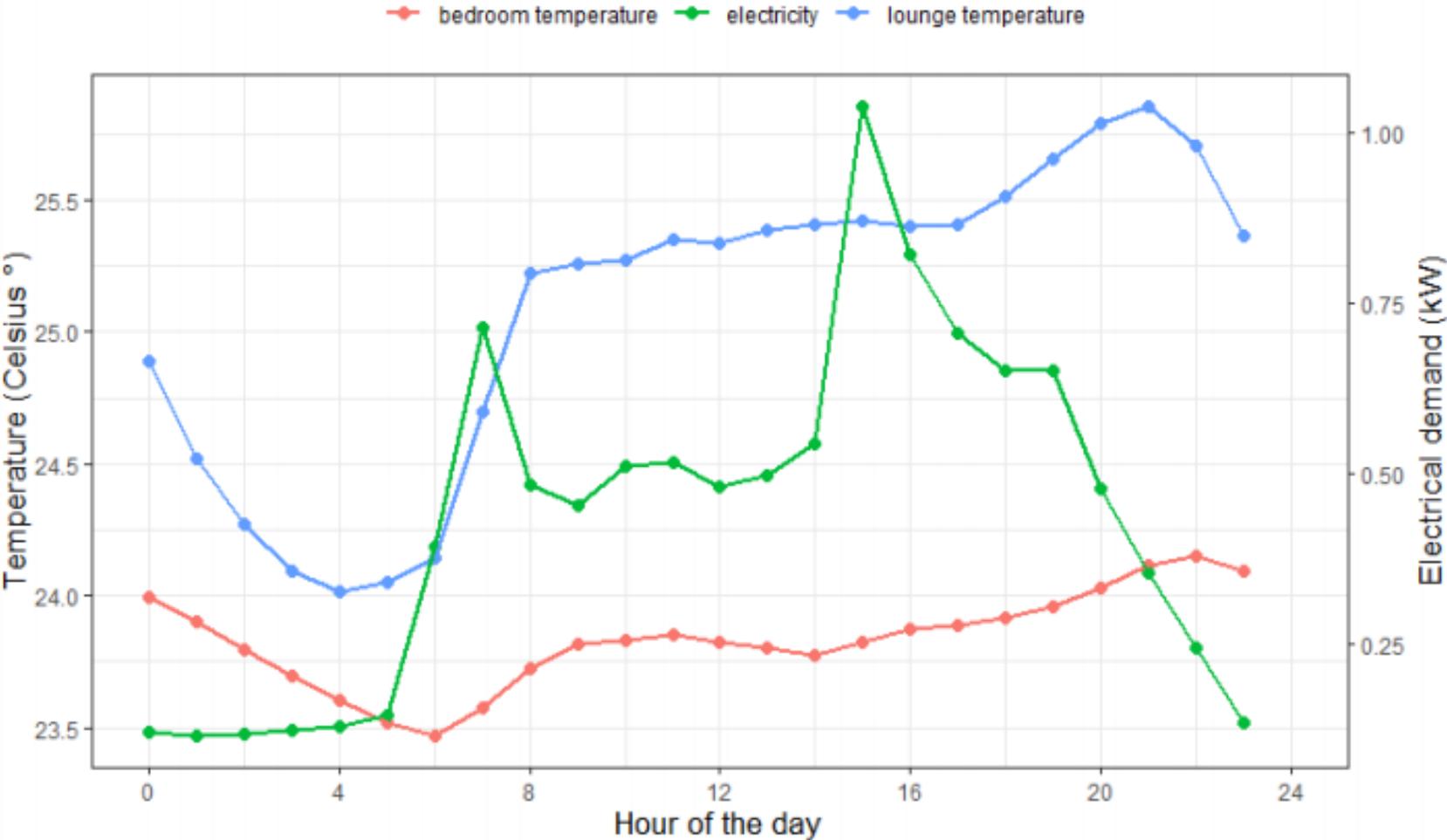
\*All costs based on estimates, actual cost may differ.

## Appendix 2: Floor Plan



Appendix 3: Monitoring Data

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# Agenda Item 7



**South  
Cambridgeshire**  
District Council

<b>Report to:</b>	Climate and Environment Advisory Committee 23 November 2021
<b>Lead Cabinet Member:</b>	Cllr Bridget Smith
<b>Lead Officer:</b>	Bode Esan

---

## Zero Carbon and Doubling Nature Action Plan

### Executive Summary

1. This report presents the Climate and Environment Advisory Committee with a progress review on the Zero Carbon and Doubling Nature Action Plan 2020-25 at end of Q2 of the 2021-22 financial year for review and comment.

### Recommendations

2. It is recommended that CEAC notes the progress review of the Zero Carbon and Doubling Nature Action Plan 2020-25 at end of Q2 of the 2021-22 financial year.

### Reasons for Recommendations

3. The progress update has been brought to CEAC to allow the committee to fulfil its role advising Cabinet on policies, actions and resources required to deliver on the Council's climate change and environmental ambitions and providing updates on progress towards achieving agreed targets and outcomes.

### Details

4. A progress update on the Zero Carbon Action Plan at the end of the 2020-21 financial year was presented to CEAC on 13 July along with a revised plan for 2021-22, incorporating doubling nature actions and renamed accordingly the Zero Carbon and Doubling Nature Action Plan 2020-25 (ZCDNAP). The document at Appendix 1 provides an update of progress of the ZCDNAP (2021-22 revision) at the end of Q2.

The ZCDNAP is in three sections.

5. Section 1 lists actions intended to reduce GHG emissions from the Council's own estate and operations. The Council's Zero Carbon Strategy includes a target of a 45% reduction in GHG emissions on our own estate and operations by 2025 relative to a 2018-19 baseline. Progress towards this target will be reported with the annual GHG Emissions accounts at the end of the financial year.
6. Section 2 lists actions intended to contribute to the aspiration of halving GHG emissions in the wider district relative to a 2018-19 baseline, further divided into sub-sections:
  - Housing
  - Commercial Sector
  - Travel
  - Waste and Recycling and
  - Cross-cutting
7. Section 3 lists actions intended to contribute to the aspiration to double nature in the district.
8. A RAG rating is provided for each action, with the action marked green where progress is on track for completion by the expected date; amber where progress is continuing but a delay to the expected completion date has been agreed; and red where progress has stalled.

## **Implications**

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

### **Financial**

10. Financial resources for the actions in the Zero Carbon and Doubling Nature Action Plan have been assigned through the Council's usual budgetary processes.

### **Staffing**

11. Staffing for the actions in the Zero Carbon and Doubling Nature Action Plan have been assigned through the Council's usual processes.

### **Climate Change**

12. The action plan sets out the actions the Council is taking to mitigate climate change.

## **Consultation responses**

13. The action plan has been the subject of internal consultation.

## **Alignment with Council Priority Areas**

### **Being green to our core**

14. The action plan sets out the actions the Council is taking to mitigate climate change and double nature.

## **Background Papers**

Zero Carbon Strategy report to Full Council, 21 May 2020

<https://scambsmoderngov.co.uk/documents/s116330/200521%20Zero%20Carbon%20Strategy%20Report%20to%20Council%20FINAL.pdf>

Doubling Nature Strategy report to Cabinet, 03 February 2021

[https://scambsmoderngov.co.uk/documents/s120629/210203%20Cabinet%20Doubling%20Nature%20Strategy\\_.pdf](https://scambsmoderngov.co.uk/documents/s120629/210203%20Cabinet%20Doubling%20Nature%20Strategy_.pdf)

Zero Carbon and Doubling Nature Action Plan report to CEAC, 13 July 2021

<https://scambsmoderngov.co.uk/documents/s122603/210713%20ZC%20and%20DN%20Action%20Plan%20report%20to%20CEAC.pdf>

## **Appendix**

Zero Carbon and Doubling Nature Action Plan 2020-25 Progress Update at 30 September 2021

### **Report Author:**

Siobhan Mellon, Development Officer, Climate and Environment  
Telephone: (01954) 713395

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## Zero Carbon and Doubling Nature Action Plan 2020-25 (2021-22 revision )

Ref	Action	Business Plan 2020-25 (2020-21 revision) reference, where relevant	Service	Expected completion date	Progress at 30 September 2021	Progress at 31 Mar 2022	RAG rating - R for Red, A for Amber, G for Green
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### 1. Actions to reduce GHG emissions from the Council's own estate (not inc housing) and operations

<b>Fleet</b>							
1.1	Implement depot changes to prepare for electric refuse collection vehicle (eRCV) charging	C4) Continue to transition to electric recycling and waste vehicles, including hte investigation of on-site solar panel energy generation	Climate, Environment & Waste	31-Mar-21	Charging points for an additional two eRCVs are in progress and will be completed by the time the two new vehicles are delivered. These will reach the limit of 3 eRCVs which can be charged under our current arrangements which use electricity from the grid.		G
1.2	Procure five eRCVs to replace diesel version (ongoing)		Climate, Environment & Waste	ongoing	A further two Electric RCVs have now been ordered and are expected to be delivered in January 2022 and March 2022. Further eRCVs will be considered for 2022-23 as recharging options allow.		G
1.3	Develop a new solar pv array to supply low carbon electricity to power these vehicles.		Climate, Environment & Waste	31-Mar-21	A meeting looking at options to install a 1MW solar array was held in October with Energy Services Provider, Bouygues. We are awaiting further information from Bouygues on options following that meeting.		G
<b>South Cambridgeshire Hall</b>							
1.4	Complete retrofit of Cambourne office	C3) Retrofit our Council Commercial Propety including South Cambs Hall with renewable energy generation and energy efficiency measures	Climate, Environment & Waste	31-Dec-21	<ul style="list-style-type: none"> <li>• Project mobilisation commenced March 2021 and on track to be completed at the end of Q4.</li> <li>• Ground source heat pump has been installed, boreholes are being drilled.</li> <li>• A more efficient building management system has been installed</li> <li>• Phase one to three of the LED lighting works have been completed. Phase four of the 7 phases commences Monday 25th October.</li> </ul>		G
<b>Small sites (85 sites, including gas and electricity for heating and lighting in communal rooms and communal areas in blocks of flats)</b>							
1.5	Install solar PV array to Elm Court sheltered housing scheme, Over	C1) In response to global climate crisis e will continue to work towards a zero carbon future by 2050	Housing	31-Mar-22	The project to install solar PV to Elm Court has been delayed due to staffing issues but is now moving forward. As well as solar PV, additional improvements including insulation, LED lighting, EV charging points and battery storage are being considered.		A
1.6	Review community rooms and other small sites to identify and deliver opportunities for carbon reduction		Housing	31-Mar-22	<ul style="list-style-type: none"> <li>• 10 remote heating monitors and controls have been fitted in communal rooms, 2 more than at end of Q1. Planning to install another 15 - delayed due to product supply issues.</li> <li>• A project is underway to investigate the potential for green energy measures at Elm Court Sheltered Housing scheme (at Over).</li> <li>• Wider project work exploring energy efficiency measures on sheltered sites has been on hold during the pandemic due to communal room closures. This will be taken off hold in coming months as communal rooms re-open. Covid-19 infection rates will continue to be monitored before deciding when to commence face-to-face consultation with residents.</li> </ul>		A
<b>Waterbeach Depot Office</b>							
n/a	Action completed in 2020-21		Finance	n/a			G
<b>Footway lights</b>							
1.7	Install energy saving LED fittings in all council owned streetlights	C6) Upgrade our stock of 1,800 streetlights to LED, which will reduce energy consumption and save Parish Councils money	Waste & Environment	31-Mar-22	<ul style="list-style-type: none"> <li>• 5 standard lights have works remaining relating to the initial footway lighting upgrade phase of the project.</li> <li>• Costs and plans are currently being obtained and developed in relation to the upgrade of ornate lights.</li> <li>• Discussions are taking place around plans to upgrade lights that are located on HRA land.</li> </ul>		A
<b>Business mileage</b>							

1.8	Investigate options to reduce carbon emissions from business mileage including salary sacrifice electric car scheme for staff	C1) In response to global climate crisis we will continue to work towards a zero carbon future by 2050		31-Mar-22	• A report has been submitted to LT for consideration, outlining options. This will be progressed in Q3/Q4.	A
<b>Further actions to reduce GHG emissions from resource use (not currently included in GHG emissions accounts)</b>						
1.9	With a view to enabling the elimination of paper agendas and reports for Council and committee meetings, explore options for overcoming technical difficulties which are preventing some Members from accessing the ModGov app, and through this, electronic agendas.	D5) Council and committee meetings will be run paper-free wherever possible	Transformation	ongoing	• 3C ICT have stated that they do not have the capacity to deliver the technical fixes (in conjunction with Civica) required to get the paperless Mod.Gov system working as intended to provide Members with access to electronic documentation on any device. • Cabinet (and approximately 5 other Members) are operating fully paperless at this point in time. We now need to wait for Civica ModernGov to implement a new form of authentication between themselves and 3C ICT back-end services to fix our issues, this is estimated for the end of 2021. • We continue to encourage councillors to move paperless in the meantime, but this currently requires a fairly high level of technical ability.	A
<b>2. Actions contributing to our aspiration of a 50% reduction in GHG emissions from the district as a whole by 2030</b>						
<b>Housing</b>						
<b>In the Council's housing stock</b>						
2.1	Commission a Stock Condition Survey including an audit of energy efficiency of existing housing stock relative to zero carbon target	B4) Improve the energy efficiency of existing Council housing to reduce carbon impact and running costs	Housing	31-Mar-22	• It is still our intention to undertake a stock condition survey. This will follow the procurement of our new Repairs and Maintenance Contract which will commence in June 2022. • We have received the survey results of our Net Zero project and we are working with the project group to agree retrofit works, consult with residents and set a time frame for commencement. This is likely to be in December/January. Once the renewable technologies are installed performance will be monitored and will help inform a wider programme of retrofit works across the Council stock of properties.	A
2.2	Approve a work programme for insulation measures over the next four years to narrow the gap on the zero carbon target		Housing	31-Dec-21	• This work programme will be informed by the Net-Zero project and stock condition survey referred to in the update for measure B4) above. • We will also continue to carry out improvements works, fit renewable technologies and improve insulation to our poorest performing properties when they become vacant. Examples include fitting Internal Wall Insulation Systems to non traditional style properties.	G
2.3	Produce an Asset Management Plan			31-Mar-22	• The Asset Management Plan has been presented to Leadership Team on 25th October and is now being taken through the committee process and will be presented to Cabinet in January.	A
2.4	In our Ermine Street Housing Company, analyse the EPCs of the acquired properties, (generally D and above) and aim to introduce measures to improve the ratings by at least one level)			ongoing	ESH will in addition to EPC analysis wil develop an Asset Management Strategy to ensure energy performance is improved.	G
<b>In private housing</b>						
2.5	Continue to work with partners, including through the Cambridgeshire Energy Partnership, to find ways of supporting and encouraging home energy work, including exploring options for funding and delivering energy efficiency projects for our residents.	n/a	Waste & Environment	ongoing	We are continuing to work with neighbouring Cambridgeshire LAs and with the Greater SE Energy Hub to make the most of opportunities for fully and part-funded low carbon energy efficiency work for low income households through the Government's Green Homes Grants LA Delivery schemes.	A
2.6	Oversee delivery of Cambridgeshire Solar Together group-buying scheme for solar pv and batteries in South Cambs	Ongoing objective: Provide information and advice to help businesses to understand the benefits of generating their own energy, improving their energy efficiency, increasing water and waste recycling	Waste & Environment	31-Dec-21	This Cambridgeshire-wide project to deliver a collective solar PV purchasing scheme is managed by Cambs County Council on behalf of the participating Cambridgeshire local authorities. The update from Cambs County Council on 29/09/21 indicated that 359 installations had been completed in South Cambs but that due to continuing delays with delivery of solar panels and batteries, completion of all installations has been delayed and is now expected in December.	G

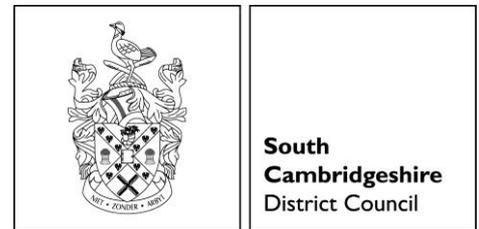
2.7	Work with partners to provide home surveys, advice, free insulation and other home energy measures for households in fuel poverty		Housing	Apr-22	The scheme is aimed at those in fuel poverty, meeting a basic eligibility criteria for a minimum of 1 aspect based on income, Health, Vulnerability for both Social housing tenants & private sector residents across the District of South Cambridgeshire. This is a referral service delivered by the Council's partners Green Energy Switch, specialist home energy advisors provide a range of services free of charge on energy saving measures insulation, fuel debt advice fuel tariff switching providing & installing small energy saving measures eg LED lightbulbs, radiator reflectors, draughtproofing measures & much more. The scheme is into its second year and been received well & promoted through SCDC media platforms to reach those most in need that would benefit from the services during times of need and increasing fuel prices.		G
<b>Commercial Sector</b>							
2.8	Install solar pv to 270 Science Park	C3) Retrofit our Council Commercial Property including South Cambs Hall with renewable energy generation and energy efficiency measures		31-Mar-22	Work is currently underway on solar PV installation however, wider issues have been identified as part of this work which may require a full re-roofing. If the latter transpires to be the case, there may be a delay to solar PV installation in its entirety		
2.9	Undertake energy efficiency and generation audits of other Council owned commercial properties			31-Mar-22	• General ongoing greening business improvement work is happening on all commercially owned assets.		
2.10	Our Business Support team will continue to help local businesses access information, advice and funding on how to increase energy efficiency, generate their own energy, and improve water efficiency and recycling rates.	Ongoing: Provide information and advice to help businesses to understand the benefits of generating their own energy,		ongoing	Action ongoing as per previous update		
<b>Travel</b>							
2.11	Continue to work alongside partners including the Cambs County Council, GCP and CAPCA to deliver projects that will enhance sustainable transport including cycling provision.	C Ongoing objective: Promote walking, cycling and public transport improvements through planning and by working with local communities and partners		ongoing	Sustainable transport and cycling provision continue to be an area of focus for responses by the Communities Team to all stages of planning application. The Team liaises with CAPCA over the combined Authority's Community Transport responsibilities within major sites. The SCDC S106 Officer works with Communities Team Development Officers to make provision for Community Transport in smaller (non-major) sites. The Council's Active Travel Toolkit is being reviewed with a view to it forming part of the Cambridgeshire and Peterborough Local Transport Plan.		G
2.12	Identify and deliver opportunities to install publicly accessible electric vehicle charge points in priority locations, working with partners	C1) In response to global climate crisis we will continue to work towards a zero carbon future by 2050	Climate, Environment & Waste	31-Mar-22	• Work on this has started, with a broad approach and next steps agreed at a meeting on 13th October. An additional Climate & Environment Project Officer has started in post and is working on this project.		G
2.13	Install EVCPs at South Cambs Hall for use by staff and visitors	C3) Retrofit our Cambourne office with renewable energy generation and energy efficiency measures	Policy, performance & projects	31-Mar-22	• EV Charge Points - Not started, dependent on completion of borehole drilling before solar panel work begins - in line with programme		G
<b>Waste and Recycling</b>							
2.14	Increase collection facilities for clothing and small electrical items	C Ongoing Objective - Reduce waste and raise awareness by promoting recycling	Waste & Environment	Mar-22	Funding has been successfully secured for the expansion of recycling points for small electrical items and site reviews are underway to suitable sites for this and for textiles.		A
2.15	Continue to support waste reduction events at community level including Repair Cafes	C8) Improve recycling and reduce waste at community events	Waste & Environment	Dec-21	There has been an ongoing commitment to help those running events and decrease waste via events guide, see below. We have also tried to maximise the amount of waste we capture for recycling by supporting recycling litter picking at a community levels, with 11 events this summer.		G
2.16	Promote the guide and resource toolkit to improve recycling and reduce waste at small community events		Waste & Environment	Completed	This guide has been created and is available on-line. We will continue to promote it.		G
2.17	Plan and implement campaigns to minimise waste, eg Love Food, Hate Waste and Refill campaigns	C9) Run an information campaign to help reduce the amount of food waste in the black bin	Waste & Environment	September and 21 and March 22	3 waste reductions campaign have now been delivered. Plastic free July Campaign, promoting avoidance of plastic, Remember you reusables campaign and the launch a discount scheme to encourage use of washable nappies.		G
2.18	Extend the trial separate collection of food waste. If successful at diverting food from landfill, roll out.		Waste & Environment	Nov-21	The 3rd phase of the trial has now been extended to another 5,000 properties. with collection starting in november 2021. The rest of the year will be reviewing the scheme to feed into future prep and plans with the national waste strategy		G
<b>Cross-cutting actions</b>							
	<b>Through Planning</b>						

2.19	Progress planning policies related to net zero carbon and wider climate change policies as part of the work on the North East Cambridge Area Action Plan		Planning	Ongoing	The Draft North East Cambridge Area Action Plan includes a net zero carbon buildings policy as well as wider policies related to the role of new development in responding to the climate emergency, giving consideration to issues such as flood risk, water availability and overheating. The draft Area Action Plan will be considered by Councillors towards the end of 2020.		G
2.20	Progress planning policies related to net zero carbon and wider climate change policies as part of work on the Greater Cambridge Local Plan Preferred Options consultation and work on the draft plan		Planning	Ongoing	The Greater Cambridge Local Plan - First Proposals document includes a net zero carbon buildings policy as well as wider policies related to the role of new development in responding to the climate emergency. The document has now been considered by Councillors and approved for full public consultation, which will take place between November and December 2021		G
<b>By supporting community action</b>							
2.21	Deliver a third round of funding through our Zero Carbon Communities grant scheme, awarding grants totalling £100,000 to community-based projects	C5) Support Parish Council and community group projects to reduce reliance on fossil fuels, move toward the zero-carbon target and help double nature through habitat enhancement, advisory support for community land acquisition, local green space designation and tree-planting	Waste & Environment	31-Mar-22	A third round of funding has awarded 15 projects a total of £98,796. Funding awarded to projects is in the process of being distributed. Projects will reduce communities' reliance on fossil fuels, through improvements to heating and lighting and help to enhance habitats and biodiversity through tree planting. All projects also provide educational benefits on zero carbon strategies for local communities. Continued advisory support is provided to projects. (Comment provided by Eleanor Haines)		G
<b>3 Actions contributing to our aspiration to double nature</b>							
<b>Through Planning</b>							
3.1	Progress planning policies related to doubling nature as part of wider work on green infrastructure on the Greater Cambridge Local Plan Preferred Options consultation and work on the draft plan.		Planning	Ongoing	<ul style="list-style-type: none"> <li>The First Proposals Local Plan is being published for consultation in Autumn 2021. This includes 14 strategic scale green infrastructure strategic initiatives identified in the Greater Cambridge Green Infrastructure Opportunity Mapping Final Report being published alongside the Local Plan. Most of the strategic initiatives support habitat enhancement and creation. These have been developed drawing on discussion with Natural Cambridgeshire partners and Natural England.</li> <li>In addition, the First Proposals includes a proposed policy requirement for 20% biodiversity net gain.</li> </ul>		G
3.2	Draft and adopt a Greater Cambridge Biodiversity Supplementary Planning Document (SPD) to update and strengthen guidance in the SCDC Biodiversity SPD (2009)			28-Feb-22	Drafted, public consultation complete, amendments to document and themes from consultation currently underway, revised timeline for adoption now is Feb 2022, anticipating no further delays to the publication of Environment Bill / Act.		G
3.3	Publish at least one case study to promote good practice in securing benefits to biodiversity through development			31-Dec-21	Already identified one case study from Cambridge, but are looking for more, likely will come in time.		G
<b>By supporting community action</b>							
3.4	Review and relaunch the Wildlife Enhancement Grant scheme	C5) Support Parish Council and community group projects to reduce reliance on fossil fuels, move toward the zero-carbon target and help double nature through habitat enhancement, advisory support for community land acquisition, local green space designation and tree-planting		31-Dec-21	Various conversations underway. Community Chest have amended their grants guidance to incorporate the WES funding and are taking on the management of the WES funding for the time being.		G
3.5	Provide six free trees to every parish			31-Mar-22	Applications to the 6 Free Trees project have now closed and applicants have been sent instructions for ordering the trees. 72 Parish Councils have applied and 169 trees have been ordered so far. We have started to receive photos from tree planting events and plan to share these during Tree week at the end of November.		G
3.6	Explore options for delivering support for parish councils and community groups to create and deliver Local Nature Recovery Plans			31-Mar-22	Local nature recovery plans will be supported by funding for projects aimed at increasing biodiversity, which will be made available to community groups through the Community Chest, (see 3.4 above).		G
3.7	Continue to support volunteers to play an active role in conserving and enhancing their local trees and woods through our role as registered Tree Warden network co-ordinator for this area with the Tree Council.	Ongoing objective: strengthen the ability for local communities to deliver on local environmental ambitions and priorities included in the Zero Carbon and Doubling Nature strategies.	Planning		This work has been ongoing during Q1Q2. Tree Warden position currently vacant.		A
3.8	Run a second Climate and Environment fortnight of online events highlighting successful community action and inspiring and encouraging further action.			31-Mar-22	A second fortnight of online events will take place early in 2022 to be planned from January 2022.		G
<b>On our own estate and through our operations</b>							

3.8	Add a step to the Housing Estates Inspection process to identify and take forward opportunities for tree-planting and other wildlife-friendly initiatives in appropriate locations.			completed	The new Housing Estates Inspection process, which includes a step for identifying locations for tree-planting is now in place but has not resulted in many opportunities for tree-planting or wildflower strips. Other ways to identify these areas are mpw being explored. These include through informal estates inspections and in collaboration with parish councils and community groups.		A
3.9	Complete the audit of trees on Council-owned housing estates and undertake recommended maintenance work			31-Mar-22	Two of four sections of the Tree Audit have now been completed. The third is due in November and the final one by the end of Q4. Urgent maintenance work has been completed or is in train. Less urgent work has been incorporated into a three year programme of tree surgery work.		G
3.1	Identify appropriate locations and set up three pilot schemes to establish wildflower strips or patches on Council housing estate land.			31-Mar-22	See 3.8 above		A
3.11	Review management of awarded watercourses appearing in the 2021 Chalk Streams Report and agree action if and where possible to improve biodiversity.			31-Mar-22	Principal Operations Manager (Environmental Ops) met with Rob Mungovan in the summer and did a tour of the chalk streams in the Bassingbourn and Shepreth area. Budget has been approved for Rob to prepare a report with options for improving management of these streams for biodiversity. The completed report is expected by the end of the year.		G
<b>By working with partners</b>							
3.12	Work with Highways England to ensure positive environmental legacy from A428 Improvement works			31-Mar-22	We are awaiting an update from Highways England on progress of a bid to the Carbon Theme of the Environmental Legacy Fund.		A

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# Agenda Item 8



23 November 2021

**REPORT TO:** Climate and Environment Advisory Committee

**LEAD CABINET MEMBER:** Cllr Bridget Smith

**LEAD OFFICER:** Head of Shared Waste Services and Environment

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## Zero Carbon Communities (ZCC) programme update

### Executive Summary

1. The purpose of this report is to provide the Committee with information on the progress of the Zero Carbon Communities (ZCC) programme and Six Free Trees project for review and comment.

### Key Decision

2. This is not a key decision. The report is provided to the Committee to support their role promoting and facilitating the Zero Carbon Communities network, sharing information, guidance and best practice for parish councils and local community groups wanting to help shift towards a zero-carbon lifestyle.

### Recommendations

3. The committee is invited to review the update and highlight any issues of concern and actions recommended to address these.

### Details

#### Zero Carbon Communities Grant Scheme

4. Proposals for a ZCC grant were recommended by the Climate & Environment Advisory Committee (4 Feb 2019) and the Grants Advisory Committee (29 Mar 2019) and approved by Cabinet on 01 May 2019. The funds are taken from the Renewables Reserve (business rates retained from commercial renewable energy projects in the district).

5. The ZCC grant supports parish councils and community groups to run projects which engage communities and reduce reliance on fossil fuels. Applications are invited for a £1,000 - £15,000 share of the £100,000 total annual grant fund.
6. The grant is a key mechanism by which the Council can pursue their Green to our Core agenda and deliver the community-focussed actions in the Zero Carbon Action Plan. The prime objective is the successful completion of at least 7 projects which deliver community engagement on climate change mitigation and reduced CO2 emissions.

#### *Round 1*

7. In its first year, the ZCC grant welcomed projects which engaged communities and contributed to the aim of becoming zero carbon by 2050. 42 applications were received, 19 of which were awarded funding totalling £120,959.
8. 11 projects from Round 1 are completed, and 'End of Project' reports continue to be received.
9. Given the impact of COVID-19, 4 projects have been granted extensions or adapted due to social distancing rules. All projects have started - **Appendix A** provides an overview of the progress of each project, with a RAG (red, amber, green) status given to their progress.
10. Project successes have been shared through social media, the website, the South Cambs quarterly magazine and our ZCC quarterly newsletter. Externally, the grant has attracted media attention including BBC Radio Cambridgeshire and the Cambridge Independent newspaper. Publicity material has been provided (by working alongside the Communications department) to allow applicants to promote the Council's work.
11. The ZCC programme featured as a case study in a national Local Government Association webinar on engaging communities on climate change, held on 26th February 2021.

#### *Round 2*

12. Round 2 of the ZCC grant, launched in 2020, received applications for the themes of cycling, community building and tree planting. 45 eligible projects applied in total.
13. In November 2020, 17 successful projects were selected and awarded between £1,000 to £15,000. A total of £94,660 was allocated to successful projects.
14. An overview of the projects funded through Round 2 can be seen in **Appendix B**.
15. All Round 2 projects are due to be completed by the end of December 2021. Where projects have been completed and project reports already received, this is noted.

#### *Round 3*

16. Round 3 launched in May 2021. Projects could apply to two main themes: community buildings and nature, which each comprised 40% of the total grant fund, or to a general

theme for exceptional projects which comprised 20% of the total grant fund. 27 eligible applications were received.

17. 15 applicants were successful, and total of £98,796 was funded to projects. A summary of the funding distribution by theme can be seen below.

Community Building	5	£52,495
Nature	7	£24,900
Other	3	£21,401

18. A grant of £15,000 was rejected by the Tithe Barn Trust after receiving funding from another source. A grant of £4,000 was withdrawn from Foxton Village Hall as the proposed improvements had already been installed.

19. A summary of the projects funded in Round 3 can be seen in **Appendix C**.

20. As a result of unusual circumstances in Round 3 of the ZCC Grant scheme, £25,544 remains unallocated. Options for the unallocated grant will be presented to the Grants Advisory Committee on 26 November for recommendation to the lead Cabinet Member for Finance. CEAC will be invited to attend this meeting.

#### *Energy Surveys*

21. Round 2 of the ZCC grant scheme included energy surveys, funded separately from the main grant. Following a procurement exercise, PECT (Peterborough Environment City Trust) were appointed to deliver these. The total number of surveys to be delivered through this scheme is 25. 10 surveys were completed during Round 2 and an additional 15 surveys of community buildings around South Cambridgeshire are due to be completed.

22. Each survey costs £790 + VAT making the total expenditure for the Free Energy Survey Scheme since its launch £19,750 + VAT.

### **6 Free Trees Scheme**

#### *Project Overview*

23. The scheme began in 2019/2020 to help deliver the council's Doubling Nature Strategy by providing three free trees to every parish in the district with the aims to:

- sequester carbon;
- help biodiversity; and
- increase health and wellbeing of residents.

#### *3 Free Trees Scheme*

24. Through the 3 Free Trees scheme, parish councils could apply for a £60 voucher for three free trees from one of 7 participating garden centres to purchase trees and the

supporting equipment required. 54 parish councils accepted the offer, and 162 trees were planted.

### *6 Free Trees Scheme*

25. This year, the 6 Free Trees scheme has been launched which offers 6 free trees to each parish council in South Cambridgeshire. Parish councils could apply online to receive a purchase order form to complete and send to our participating nursery. Instead of 6 free trees, parish councils could opt for 1 larger tree rather than 6 smaller ones. The scheme has received 72 applications from parish councils so far. Applications closed on the 27<sup>th</sup> October. Purchase orders for 208 trees of varying sizes have been received so far.

### ***ZCC Workshops, Newsletters and Climate and Environment fortnight of events.***

#### *Project Overview*

26. The ZCC Workshops, Newsletters and Climate and Environment Fortnight of Events aim to:

- enhance community engagement;
- raise awareness around the ZCC programme, green businesses, sustainable initiatives; and
- promote the council's Zero Carbon and Doubling Nature strategies.

#### *ZCC Workshops*

27. A series of monthly events has been launched entitled "ZCC Green Connect". Each session includes a talk by a guest speaker, a short Q+A and a series of breakout sessions whereby people are split into smaller groups and encouraged to introduce themselves and discuss selected questions. The first of these took place on 9<sup>th</sup> November 2021 on the topic of "COP26 – What it means for South Cambridgeshire?".

#### *ZCC Newsletter*

28. The ZCC newsletter is a quarterly e-bulletin. The next newsletter will be published on 1<sup>st</sup> December 2021.

#### *Climate and Environment Fortnight of Events*

29. A successful climate and environment fortnight of events was conducted in February 2021. There are plans in place to hold another fortnight of events in February 2022.

### **Implications**

30. In the writing of this report, the following financial, legal, staffing, risk, equality and diversity, climate change, and other issues were considered. These are as follows:

#### ***Financial***

31. The awarded funding falls within the Council's proposed budget for 2021-22.

## ***Legal***

32. Funding agreements with grant recipients will be drawn up in accordance with templates approved by the legal team. Funding agreements will allow variation or recovering of the grant in specific circumstances.

## **Effect on Council Priority Areas**

33. The Zero Carbon Communities grant scheme has attracted significant interest. All the aims below from the SCDC Business plan 2019-24, will be furthered by one or more of the projects recommended for funding.

## ***Growing local businesses and economies***

34. Investing in renewable technologies.
35. Allowing local businesses to expand sustainably.

## ***Being green to our core***

36. Supporting community groups to promote behavioural change and reduce their reliance on fossil fuels.
37. Helping communities to secure grants to fund green projects.
38. Protecting and enhancing the district's heritage and environment.

## ***A modern and caring Council***

39. Funding community and voluntary groups that benefit local people.
40. Promoting innovation by funding new green technologies.

## **Background Papers**

Climate and Environment Advisory Committee Meeting Monday, 4 February 2019

<http://moderngov/ieListDocuments.aspx?CIId=1095&MIId=7489>

Grants Advisory Committee Meeting Friday, 29 March 2019

<http://moderngov/ieListDocuments.aspx?CIId=1096&MIId=7487&Ver=4>

Cabinet, on 01 May 2019

<http://moderngov/ieListDocuments.aspx?CIId=293&MIId=7365&Ver=4>

Grants Advisory Committee Meeting Friday, 27 November 2020  
<http://moderngov/ieListDocuments.aspx?CId=1096&MId=7968&Ver=4>

Grants Advisory Committee Meeting, Friday 26 February 2021  
[Agenda for Grants Advisory Committee on Friday, 26 February 2021, 10.00 a.m. \(moderngov.co.uk\)](#)

Climate and Advisory Committee Meeting, Tuesday 9 March 2021  
[Agenda for Climate and Environment Advisory Committee on Tuesday, 9 March 2021, 2.00 p.m. \(moderngov.co.uk\)](#)

Grants Advisory Committee, Friday 24<sup>th</sup> September 2021  
[Agenda for Grants Advisory Committee on Friday, 24 September 2021, 1.30 p.m. \(moderngov.co.uk\)](#)

## **Appendices**

**Appendix A** – Overview of Round 1 project progress.

**Appendix B** – Overview of Round 2 funded projects.

**Appendix C** – Overview of Round 3 funded projects.

## **Report Author:**

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**Appendix A** – Overview of Round 1 project progress.

Project	Project Description	Project Progress	Amount funded (£)	Project Status
Restore HI Trees: the Woodland and Wildlife in the Green Gateway to Histon & Impington	Restoring the woodland and wildlife green gateway to Histon and Impington destroyed by the A14 expansion.	850 trees planted. Hope to do a community planting event winter 2021.	6,500	A
Eco Eats: campaign & festival	Series of events encouraging sustainable eating through a Festival Fortnight programme and an Eco Eats recipe book.	Delivery of VEGFEST festival encouraging a climate diet and successful promotion at the Fen Edge Festival.	2,520	A
Cambourne Community Towards Zero Carbon	Tree and hedge planting around Cambourne Cricket Pitch as well as community involvement with school.	1,200 trees and shrubs planted Feb 20 helped by residents and pupils from Cambourne Village College.	2,538	G
Net Zero Now	Training programme to allow community leaders to deliver carbon reduction activities.	12 individuals have completed the mostly – online training programme in Summer 21.	15,000	G
Orchard Park Shared Electric Cargo Trike Project	Purchase an electric cargo trike for use by Orchard Park residents and local non-profit groups.	Successful uptake of trike usage by families and community minimising car usage.	5,000	G
E-Bikes in the Abingtons	Introduction of Electric Bikes and an e-bike loan hub in partnership with CET.	E-bikes delivered, and launch completed proving popular.	2,055	G
Gamlingay Eco Community Group	Monthly pop-up shop offering plastic-free household products for free trials then purchases	Stall held at Gamlingay Village show but challenges to pop-up shop due to COVID.	2,129	A
Food Our Future	Campaign to raise awareness around climate-friendly diets through a programme of 34 events, talks and stalls.	6 stalls held, visits to 6 villages, 250 visitors across all ages, 5.97	15,000	G

		tonnes food saved from waste and continued campaigning.		
Living Food Bank - Climate Cafes	Link local people to build local vegetable plots as living food banks.	Fruit trees ordered, heritage seeds planted, and tools and plants donated.	4,150	A
Whittlesford Tree Planting	Plant 80 trees to absorb carbon, increase biodiversity and inspire residents.	Some trees planted including Hornbeam – update expected.	3,611	A
Waterbeach cycle stands	Installation of 6 bike stands in 3 locations to encourage villagers to cycle rather than drive to village.	Objective exceeded, installing 8, instead of 6 stands.	1,200	G
Wilbraham Woodlands	Plant 6 trees in the village.	Trees to be planted end of the year with the addition of their own cultivated oaks.	1,000	G
Melbourn Community Young Person's Refill Project	Install 6 water bottle refill stations and educate students about the dangers of plastic pollution.	All water stations installed and continued engagement with pupils on green initiatives.	6,000	G
Teversham Cycle Plan	Purchase of 4 E-bikes, 4 bike lockers and 4 cycle stands in Teversham to encourage cycling to work.	Residents using Bizbikes and leaving them locked to stands. Organised parish cycle event.	14,477	G
Ickleton Village Hall - Energy Saving Lighting Project	Replace all current lighting in village hall with Low Energy equivalents.	All lighting in hall converted to LED strip lighting and motion sensors fitted in toilets and changing rooms.	8,387	G
Fen Ditton Parish Council	Installation of drinking water fountains and a cycle rack.	Cycle racks installed and water fountain expected to be installed by end of the year.	1,500	A
Meldreth Station Cycle Park and Cycle Repair Cafe	Installation of double story cycle rack (30 bikes), CCTV cameras and establishment of cycle repair café.	Cycle racks installed. Cycle repair café on hold due to COVID.	6,500	A

Papworth Trust: OWL Bikes Carbon Footprint Project	Pop-up bike shops and safe cycling and repair workshops outreaching to local communities across South Cambridgeshire	Pop-up bike shops and repair cafes held.	13,392	G
Street Focus - enabling communities to get more out of new developments	Create website showing planning applications enabling local people to suggest changes to cycling infrastructure.	Site now ready to launch and is expected when data is updated.	10,000	G
Total awarded			120,959	

### Table Legend

Box Shading	Project Status
R	Project has not started.
A	Project is underway.
G	Project has been completed.

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## Appendix B – Overview of Round 2 funded projects

Project	Project Description	Project Progress	Amount funded (£)
Babraham Parish Council	Creation of a 'Forest Garden' for growing edible and usable produce.	Forest designed and trees ordered with plans to plant in place.	9,835
St John the Evangelist Parish Church, Waterbeach	Install air source heat pump, solar PV and an energy monitor in Church room.	Contract with Eco-Installer for supply – awaiting planning decision.	15,000
Milton Cycling	Provision of high-quality cycle parking stands in Milton.	Are in the process of installing cycle stands across various businesses.	15,000
Barrington Parish Council	Creation of a 'Forest Garden' with 6 East Anglian trees, 10 bushes and other herbs and shrubs.	Project report pending.	2,037
Eltisley Parish Council	Planting of 3000 native trees on 2.5 hectares of land spanning 3 fields.	Plan change – now to establish wildflower areas on 4 verges to be carried out professionally.	5,043
Gamlingay Parish Council	Increase tree canopy over next 10 years.	Plan now to move it onto old primary school field. Waiting on finalisation of this as public space.	5,726
Little Wilbraham and Six Mile Bottom Parish Council	Plant 5 trees, create paths at the recreational ground and plant vegetation on the village verges.	Project report pending.	1,080
Sawston Parish Council	Tree consultancy to develop planting guides for 12 green spaces across Sawston and to support planting event.	Project report pending.	2,792
Northstowe Horticultural Association	Community garden and orchard (35 trees) for local residents.	Delay due to flooding so project on hold.	5,800
Fowlmere Parish Council	Install 14 cycle stands in 4 key locations in the village to encourage cycling.	Project report pending.	2,690
Little Shelford Community Orchard and Woodland Project (SCOWP)	Clear and prepare one acre of ground at Blennie's Patch, planting of 200 hedgerow whips, 9 apple trees and 9 hardwood trees.	Planted apple tree, several small oaks, three silver birch trees and put up birdboxes.	3,165
Camcycle	Create, publish and distribute cycle parking policy/guide to	Project report pending.	2,000

	support those installing cycle parking.		
Great Shelford Parish Council	Plant 8 mature trees in new play area and employ a tree consultant to develop planting guide.	Project report pending.	5,750
Willingham Parish Council	To install infrared panels in the village hall.	Panels have been installed	13,142
Cottenham Parish Council	Installation of cycle stands at 2 community spaces, north and south of the village.	Project report pending.	1,550
Great Abington Parish Council	Commercial share-bike scheme providing a station close to the village centre.	Project report pending.	3,050
Foxton Parish Council	To create seedbed for drought resistant wildflower species.	Project report pending.	1,000
<b>Total</b>		<b>97,242</b>	<b>94,660</b>

## Appendix C – Overview of Round 3 funded projects

Project	Project Description	Amount Funded (£)
Shepreth Parish Council with Shepreth Village Hall Committee	12 solar panels and battery storage.	9,495
Girton Parish Council	Installation of infrared heating panels at the Pavilion.	15,000
West Wickham Village Hall	Replace electric heating system with infrared heating panels.	9,000
Willingham Parish Council	Develop two wildflower meadows.	4,161
Cambridge Past Present and Future	Coppicing and restoration of two acres woodland. Planting of 50 native hedgerow whips to create deadwood habitats.	3,521
Little Shelford Community Orchard and Woodland Project	Plant 11 fruit trees, 24 larger native trees, more hedgerows and at least two more cuts of wildflower meadow.	1,780
Great Shelford Parochial Charities	Landscape 6 acres of land by planting 22 mature native trees and 2,000 bulbs.	4,610
Fen Ditton Parish Council	Plant 400 hedgerow whips and 33 trees on 3 areas of land.	3,000
Headway Cambridgeshire	Planting and maintenance of 40 organic apple trees and hedges to create a Community Orchard.	5,000
Linton Parish Council	Create a Community Orchard central to the village by planting 38 native trees.	2,828
Cambridge Sustainable Food CIC	A variety of events including 4 live cookery demos at the Fen Edge Festival, Disco South and Climate Diet Assembly and other workshops promoting a Climate Friendly diet.	8,541
Bassingbourn-cum-Kneesworth Climate Emergency Group	Build and maintain a website along with community engagement to educate and engage parishioners.	2,860
Northstowe Horticultural Association	To purchase and install a community building to be used as a community space and a storage space for equipment.	10,000

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