



To Members of the **CLIMATE EMERGENCY COMMITTEE**

Members are hereby summoned to attend a meeting of the **CLIMATE EMERGENCY COMMITTEE** to be held on **MONDAY 18 OCTOBER 2021 at 7.00 PM** in **THE EXHIBITION ROOM, HOLMFIRTH CIVIC HALL**, to transact the following business:

**- AGENDA – (A)**

**Welcome**

**7.00 pm**

Introduction and welcome to all from the Committee Chair.

The Chair welcomes any members of the public present.

**Public Question Time**

Prior to the commencement of the business session of the Committee, there will be an open session lasting 15 minutes, for members of the public to speak to Members.

**2122 26**      **Public Bodies (Admission to Meetings) Act 1960 amended by the Openness of Local Government Bodies Regulations 2014 on 6 August 2014**      **7.15 pm**

Local (Parish and Town) **HOLME VALLEY PARISH COUNCIL** meetings can now be recorded. This meeting is being recorded by the Clerk in video format for the [HOLME VALLEY PARISH COUNCIL YouTube Channel](#).

**2122 27**      **To receive apologies and approve reasons for absence**      **7.16 pm**

**2122 28**      **To receive Members' and Officers' personal and disclosable pecuniary interests in items on the agenda**      **7.17 pm**

**2122 29**      **To consider written requests for new DPI dispensations**      **7.18 pm**

**2122 30**      **To consider whether items on the agenda should be discussed in private session**      **7.19 pm**

- any recording by members of the public to be halted during such items; co-opted members to move to a waiting room

**2122 31**      **To confirm the Minutes of the Previous Meeting**      **7.20 pm**

- To note the Minutes of the **CLIMATE EMERGENCY COMMITTEE** meeting held on **19<sup>th</sup> JULY 2021 2122 12 TO 2122 25** inclusive; approved by full **HOLME VALLEY PARISH COUNCIL 11/10/21**. **(B)**

**2122 32**      **To consider any applications from the public to be members of the Committee**      **7.23 pm**

In line with the **CLIMATE EMERGENCY COMMITTEE's Terms of Reference** at the meeting **19/07/21** 9 members of the public were co-opted. This leaves one final place as a Committee Member available for a member of the public. Should any member of the public attending the meeting wish to put themselves forward the Committee may consider this application or any others the Committee is made aware of.

# HOLME VALLEY PARISH COUNCIL

## CORRESPONDENCE

2122 33

To consider supporting a Tree Policy put forward by KIRKBURTON PARISH COUNCIL

7.26 pm

The Chairman of **HOLME VALLEY PARISH COUNCIL** requests that the **CLIMATE EMERGENCY COMMITTEE** considers the Tree Policy commended by **KIRKBURTON PARISH COUNCIL** and set out below as per the email thread provided as (c) with a view to advising **HOLME VALLEY PARISH COUNCIL** as to any further steps needed.

The policy regards making the following requests of **KIRKLEES COUNCIL**:

1. That they consider best use in terms of biodiversity and carbon sequestration of all land that they identify as areas for mitigating the climate and ecological crisis.
2. That Kirklees wholeheartedly adopts this policy and uses it to guide all decisions, particularly when considering planning applications.
3. Sets targets to increase the stock of both native and climate resilient trees, hedgerows and woodland on Council land, and work with partners to set and achieve similar targets across the Kirklees district.
4. Keeps account of tree felling the Council sanctions and ensures that it is more offset in terms of carbon and biodiversity.
5. Deters individuals and developers from harming trees with TPOs or any other environmental or historic designation by acting promptly to reports of imminent felling, taking immediate enforcement action and putting pressure on others, such as the Forestry Commission and central Government to do the same.
6. Values and strives to protect all existing trees in Kirklees, bearing in mind that a ten-year-old tree captures about 4 times more carbon than a sapling; older trees are in general better at sequestering carbon than younger ones and one veteran oak has more biodiversity than a thousand 100-year-old oaks.
7. Works with partners to manage all existing woodlands and hedgerows to encourage natural regeneration and understorey development and ensure their long-term survival.
8. Creates and conserves areas of unimproved, semi natural or priority habitats; retains and protect areas of naturally regenerating trees and shrubs and avoids planting trees on these areas, unless it enhances their value in terms of biodiversity and carbon sequestration.
9. Takes positive steps to protect threatened species of wildlife within Kirklees
10. Stipulates that a minimum stand-off distance for all new development in the vicinity of existing woodland is created - 20 m or more from the end of the gardens, and does more to prevent tipping of garden waste and encroachment by householders.
11. Takes positive steps to protect threatened species and raise awareness within our communities of the value of all our trees (even young ones) in terms of landscape, amenity, wildlife habitat and carbon capture

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## REVIEW OF PROGRESS

**2122 34**      **To consider the impact of the Big Green Week Event on 25<sup>th</sup> September 2021**      **7.30 pm**

CEC to report

**2122 35**      **To receive reports from the 6 sub-groups focusing on key actions taken including progress towards targets**      **7.35 pm**

In line with the **CLIMATE EMERGENCY COMMITTEE's Terms of Reference** each of the 6 sub-groups formed according to the main themes of the ***Climate Emergency Action Plan*** will report on key actions taken since meeting on **19<sup>th</sup> JULY**.

- Sub-group 1 – Agriculture, Food, Environment and Land Use: *land use mapping, engaging farmers and landowners*
- Sub-group 2 – Energy and Buildings: *home energy efficiency measures, energy Savings Booklet, audit of Parish council buildings, renewables*
- Sub-group 3 – Economy and Business
- Sub-group 4 – Waste: *recycling; minimising waste*
- Sub-group 5 – Transport and Travel: *(public transport promotion, electric vehicles, walking, cycling)*; to include updates on:
  - i. 'If it's not far, leave the car' campaign.
  - ii. 'Living Streets' – walking to school initiative  
[Walk to School | Living Streets](#)
  - iii. 'Charge My Street' – community benefit society that installs and operates community EV chargepoints.  
[chargemystreet.co.uk](http://chargemystreet.co.uk) | [EV charge point community benefit society](#)
- Sub-group 6 – Mobilisation: *climate action, Climate Emergency Co-ordinator to report*

**2122 36**      **To consider items for publicity**      **7.45 pm**

The **PUBLICATIONS & COMMUNICATIONS COMMITTEE 14/09/21 item 2122 27 Press coverage** has directed officers of the HOLME VALLEY PARISH COUNCIL to add an agenda item in all meetings asking Members what events or news from the meeting they wish to publicise via the press, website and/or Facebook.

## **BUDGETARY ITEMS – CURRENT POSITION, GRANT REQUESTS FOR 2021-22 AND FUTURE PRIORITIES FOR 2022-23**

**2122 37**      **CLIMATE EMERGENCY COMMITTEE Expenditure Against Budget**      **7.48 pm**

**TO NOTE:** The expenditure against budget report for the year-to-date. **(D)**

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## BUDGETARY ITEMS – 2021-22 TO CONSIDER AND SEND ON WHERE APPROPRIATE TO FINANCE AND MANAGEMENT 22-11-2021

**2122 38** To consider grant proposal arising from Holmfirth Civic Hall Energy Audit Report (energy) **(E)** **7.53 pm**

Under the **Scheme of Delegation** a **FULL COUNCIL** resolution is needed to approve the full £6,000 and also a virement from CEC energy budget line to **FINANCE AND MANAGEMENT** grants for £1,000 of the total amount. Therefore the **CLIMATE EMERGENCY COMMITTEE** may wish

**TO CONSIDER:** a proposal to recommend to **FINANCE AND MANAGEMENT COMMITTEE 22/11/21** the award of a grant of up to £6000 for Holmfirth Civic Hall to action key recommendations regarding lighting and heating from the **Energy Audit Report**. The report was commissioned by the **CLIMATE EMERGENCY COMMITTEE**.

**TO CONSIDER:** a proposal to recommend to **FINANCE AND MANAGEMENT COMMITTEE 22/11/21** that it recommends to **FULL COUNCIL 13/12/21** a grant of £5,000 from general reserves plus a virement of £1,000 from CESC energy budget line to **FINANCE AND MANAGEMENT** grant budget line to fund the HVC Energy Audit Report grant proposal.

**2122 39** To consider funding request for Holme Valley cargobike pilot scheme (transport) **8.03 pm**

To consider papers submitted to support funding for EPiKS Holme Valley cargobike pilot scheme **(F)**

### FURTHER ACTIONS FOR 2021-22 INCLUDING POSSIBLE FUNDING ALLOCATIONS FROM WITHIN CLIMATE EMERGENCY COMMITTEE BUDGET FOR 2021-22

**2122 40** To consider allocating funds for the roll out of the 'If it's not far, leave the car' campaign in Honley (transport) **8.07 pm**

To consider the allocation of up to £1000 to roll out the 'If it's not far, leave the car' campaign in Honley.

**2122 41** To consider funding request for a Cycling Feasibility Study (transport) **8.11 pm**

Verbal report from Chair supported by **(G)**

**2122 42** To consider progress on bike racks across the valley (transport) **8.15 pm**

To consider actions and funding needed to progress the provision of bike racks across the valley

To consider providing financial support to businesses and community groups wishing to install cycle stands on their premises

**2122 43** To consider project and funding for River Holme Connections riverside cycleway (transport) **8.19 pm**

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To consider allocating £5000 to part-fund the creation of a riverside cycleway.

**2122 44 To consider the provision of ChargeMyStreet Community EV chargepoints (transport) 8.22 pm**

To consider actions and funding needed 2021-22 to progress the provision of EV chargepoints across the valley.

To consider rolling over EV kerbside pilot project funding to 2022-23.

To consider possible funding needed 2022-23.

**2122 45 To consider allocating monies for the Living Streets in schools project (transport) 8.27 pm**

To consider the allocation of up to £2000 for the 'Living Streets' in schools project. This is based on a maximum 50% uptake which may prove to be overly optimistic.

**2122 46 To consider focus of CEC over Autumn/Quarter 3 and looking ahead to the Spring/Quarter 4 (mobilisation) 8.30 pm**

To consider key focus and possible associated costs

**2122 47 To consider progress on land use mapping (land use) 8.35 pm**

To consider actions and funding needed to progress the mapping of land use across the valley.

**2122 48 To consider progress regarding the creation of further allotments (land use) 8.36 pm**

To consider actions and funding needed to progress the creation of further allotments. At the previous meeting **CLIMATE EMERGENCY COMMITTEE** Members supported increasing the provision of allotments and community growing projects in the Holme Valley:

- 1) by petitioning Kirklees HOLME VALLEY PARISH COUNCIL to allow re-purposing of small parcels of unused recreational land in the Valley.
- 2) by asking landowners to allow repurposing of parcels of land for rental as allotments.
- 3) by the Parish HOLME VALLEY PARISH COUNCIL purchasing additional land for the purpose of increasing allotments.

Cllr Sheard to feed back on any progress made in identifying sites and possible community orchard idea.

**2122 49 To consider actions and funding needed regarding recycling and waste reduction (energy) 8.40 pm**

To consider actions and funding needed to progress recycling and waste reduction across the valley.

**2122 50 To consider actions and funding needed to progress engagement with local businesses (economy and business) 8.42 pm**

To consider actions and funding needed to progress engagement with local businesses regarding The Climate Emergency.

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**2122 51**      **To consider actions and funding needed to progress the management of waste (waste)**      **8.44 pm**

To consider actions and funding needed to progress the management of waste to reflect The Climate Emergency.

**2122 52**      **To consider Honley Library Energy Audit Report proposal to earmark funds 2022-23 (energy) (E)**      **8.45 pm**

To receive verbal report from Cllr Andy Wilson and Mr Steve Barker meeting with *Friends of Honley Library* discussing audit recommendations.  
To consider earmarking funds in 2022-23 budget to aid implementation of recommendations.

**2122 53**      **To receive report regarding Yorkshire Motorsport Festival – plans to offset carbon footprint through creation of a community orchard**      **8.50 pm**

The Chair to give a verbal report on the meeting of 11-10-21 held with Yorkshire Motorsport Festival organisers and the organisers' ideas for offsetting carbon emissions through the creation of a community orchard.

**2122 54**      **To consider budget for 2022-23 to recommend to FINANCE AND MANAGEMENT COMMITTEE**      **8.55 pm**

**Terms of reference 4.6.2** states that:

The **CLIMATE EMERGENCY COMMITTEE** shall be delegated to make decisions on behalf of the **HOLME VALLEY PARISH COUNCIL** in the following matters:

- Approval of expenditure on items included in the approved **CLIMATE EMERGENCY COMMITTEE** budget up to the amount specified in the budget.
- To assemble and submit to **FINANCE AND MANAGEMENT COMMITTEE**, estimates of income and expenditure for each financial year in respect of services of this committee no later than 30th October each year.

The following matters are reserved to **HOLME VALLEY PARISH COUNCIL** for decision, but the **CLIMATE EMERGENCY COMMITTEE** may make recommendations:

- The **CLIMATE EMERGENCY COMMITTEE's** budget each financial year.
- Any funding required outside of, or above, the set budget in any given financial year.

To consider the budget for 2022-23 with reference to any decisions taken for earlier agenda items. A proforma **(H)** may be used to support the discussions.

**Close 9.00 pm**

Please note that timings on the agenda are given for guidance of the Chairman and the **HOLME VALLEY PARISH COUNCIL CLIMATE EMERGENCY COMMITTEE** only and should not be taken as the time at which discussion of a particular item will commence. The **CLIMATE EMERGENCY COMMITTEE** Committee may agree to defer (in whole or part) any items on the Agenda, if necessary.

*Jen McIntosh*

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Papers prepared for circulation 12/10/2021

# HOLME VALLEY PARISH COUNCIL

Mrs Jen McIntosh  
Clerk

Holme Valley Parish HOLME VALLEY PARISH COUNCIL  
Holmfirth Civic Hall,  
Huddersfield Road,  
HOLMFIRTH HD9 3AS  
Telephone: 01474 687460

## MINUTES OF THE CLIMATE EMERGENCY STANDING COMMITTEE MEETING HELD ON MONDAY, 19<sup>th</sup> JULY 2021

Those present:

Chairman: Cllr R Hogley

Councillors: M Blacka, M Bustard, P Davies, A Wilson

Co-opted Members: F Bennett, G Bradley, A Colwill, J Queening, M Tulley

Climate Emergency Co-ordinator: Michelle Brown

Officer: R McGill, Deputy Clerk

### Welcome

### Public Question Time

Councillor Hogley welcomed Councillors and members of the public to this first meeting of the Holme Valley Parish Council Climate Emergency Standing Committee 2021-22. Councillor Hogley introduced herself as the new Chair of the Committee, thanked Councillors for her election, and welcomed Cllr Mark Bustard (Holmfirth Central), Cllr Andy Wilson (Upperthong) and Cllr Mary Blacka (Scholes) as new Members of the Committee. Councillor Bustard and Councillor Wilson, as recently elected Members of the Council, introduced themselves to the Committee.

Five members of the public were present at the meeting. All had been co-opted Members of the Climate Emergency Standing Committee 2020-21.

### **2122 12 Public Bodies (Admission to Meetings) Act 1960 amended by the Openness of Local Government Bodies Regulations 2014 on 6 August 2014**

Local (Parish and Town) Council meetings can now be recorded. The Officer was recording the meeting in audio format for upload to the Council's YouTube channel. No-one else present wanted additional provision to record the meeting.

### **2122 13 To accept apologies for absence**

Apologies were tendered by Cllr Gould.

**RESOLVED:** Cllr Gould's apology was approved by the Committee.

Co-opted Members from 2020-21, - Steve Barker, Cath O'Halloran and Caroline Anstey, - sent apologies and expressed an interest in continuing to be co-opted Members of the Committee. Cllr Sheard was not present.

### **2122 14 To receive Members' and Officer's personal and disclosable pecuniary interests in items on the agenda**

None were received.

### **2122 15 To consider written requests for new DPI dispensations**

None had been received.

### **2122 16 To consider whether items on the agenda should be discussed in private session**



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**RESOLVED:** No items to be heard in private session.

## **2122 17 To confirm the Minutes of the Previous Meeting**

**RESOLVED:** The Minutes of the Climate Emergency Standing Committee meeting held on 24 May 2021, numbered 2122 01 – 2122 11 inclusive were approved.

## **2122 18 To elect a new Vice Chair of the Committee**

**RESOLVED:** Cllr Mary Blacka was elected as Vice Chair of the Standing Committee.

## **2122 19 To elect co-opted Members to the Committee, up to a maximum of ten**

**RESOLVED:** Caroline Anstey, Steve Barker, Andrew Colwill, Frances Bennett, Greta Bradley, Alison Morgan, Cath O'Halloran, John Queening, Matthew Tulley were co-opted onto the Climate Emergency Standing Committee for the year 2021-22.

There is one further place still open for a member of the public to become a co-opted Member. Any candidates should attend subsequent meetings of the Committee.

## **2122 20 Climate Emergency Standing Committee Expenditure Against Budget**

- (1) The Deputy Clerk/RFO reported on the expenditure against budget by the Committee for the year to date. The Deputy Clerk/RFO reported that the Committee might need to reshuffle its budgets over the year with virements between the budget lines as the Community Mobilisation budget is potentially too low if the Climate Emergency Co-ordinator role is re-commissioned.

**NOTED:** The Committee noted the Expenditure Against Budget report for year-to-date.

**NOTED:** The Committee further noted the Deputy Clerk/RFO's report that virements might be needed later in the year to better reflect the expenditure split of the Committee's budget.

**NOTED:** The Committee noted that there was some expenditure that was pending for ongoing projects.

- (2) The Climate Emergency Co-ordinator asked Councillors to consider approving expenditure of £600 on a carbon calculator for the Holme Valley Climate Action website.

**RESOLVED:** The Committee approved expenditure of £600 on a carbon calculator for the Holme Valley Climate Action website.

- (3) The Climate Emergency Co-ordinator reported on plans for a Great Big Green Week Pop-up Event, and asked Members to approve expenditure of £950 on the event, - in part, for the Fair and Funky smoothie-maker bike hire, design of posters, events licence and insurance as required.

**RESOLVED:** Expenditure up to £1000 was approved for the event.

**RESOLVED:** It was resolved that Saturday 25<sup>th</sup> September would be the date for the event.

The Climate Emergency Co-ordinator would be engaging with local businesses, especially the Co-op, and community groups like the Tech to develop the event. She was also applying for the temporary events licence.

## 2122 21 Mobilisation Sub-Group

The Climate Emergency Co-ordinator reported on aspects of her work co-ordinating the ongoing action planning:

- The water-fountain had been covered by a report in the Holme Valley Review.
- Repair Cafés had been held successfully.
- Co-working on an active transport campaign with Art Week had taken place.
- The website now had more and more content including a climate quiz, videos from members about electric vehicles, information about land use and the energy audits.
- The group had greater social media presence across Facebook and Twitter.
- The energy booklet was available to download.

The Climate Emergency Co-ordinator was keen to credit group Members for their hard work pursuing outcomes of the Climate Emergency Action Plan.

## 2122 22 Climate Emergency Sub-groups to feed back

### Energy, Housing, Buildings

Frances Bennett reported that the building audits of Holmfirth Civic Hall and Honley Library were complete, and a meeting was taking place to review the findings.

Mmbr Steve Barker had sent in an email report on this subgroup's work. Steve reported that the Civic Hall and Honley Library were both fully engaged in the process. These documents could be uploaded to the website to allow local people to gauge the level of depth and detail in the audit. The Chair reported that other community facilities, like village halls, might benefit from reviewing the audits, and engaging with recommendations, so sharing the reports would be a good idea.

**RESOLVED:** Ward Councillors would share the audits as they see fit with community facilities within their own wards. This would help Councillors to connect better to their communities.

The final version of the Energy Savings booklet had been published to the website. The Chair spoke very positively about the booklet, its content and tone, and hoped that other Council Committees and Councillors would see wider benefit in its publications. She hoped that there would be opportunities to share such productions more widely.

### Transport/Travel (public transport promotion, electric vehicles, walking, cycling)

Member Cath O'Halloran was absent and so a report was given by Greta Bradley on the work of the sub-group. The first report was on the Yorkshire Motorsport Festival which some Members had attended. Greta Bradley complimented Matthew Tulley, of Zero Carbon Yorkshire who had hosted a stand at the event, saying that he had had many positive engagements with a number of members of the public in what might have been a hostile environment. The stand had been designed to attract people interested in cars, - showing an electric VW camper and a history of the development of motor vehicles, - but then counterbalanced this with statistics and charts regarding CO<sub>2</sub> production and a prognosis for the earth if things don't change. Matthew reported talking to 83 people and collecting 20+ email addresses. Greta reported that he created a lot of "stop-and- think" moments amongst attendees.

Greta further reported on Art Week, saying that a scheme to encourage people to walk between fringe events during the festival was well-received, and was successful in raising consciousness. Unfortunately, she reported, they did not get a school involved. A Walk to School Day had been

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planned as part of the Duke of Edinburgh Active Transport Award but this did not happen because of the pandemic and lockdown. Nevertheless, students were very receptive and engaged especially with the If It's Not Far, Leave the Car project and took a number of posters. The Climate Emergency Co-ordinator showed the posters which encouraged changes of behaviour, - walking or cycling rather than taking the car. Another aspect of the If It's Not Far Leave the Car scheme was to include the amount of steps between villages and Holmfirth to engage with people keen on fitness. Cllr Bustard said he could share some learning and information regarding his experience promoting active transport in London. Cllr Bustard was asked to join the Transport sub-group.

The Chair asked about the progress of the bike-racks project. Greta Bradley reported that this was not being pursued at the moment because Kirklees were planning to include the project within the Holmfirth road-scheme development plan.

### Waste/Consumption (recycling; minimising waste)

Sub-group Member John Queening reported that a waste and recycling group meeting was to be held the day after so there may be more to say following that. The Repair Café was hopefully going to become better utilised once restrictions are lifted. A project with Fair Trader about using the shop as a community hub recycling centre had been compromised by the contact leaving but it was hoped that this might be restarted. Another project with the High School about "upcycling" clothing had been successful and had had a display in the Market Hall. Encouraging engagement from young people was considered very important.

Kirklees Council had recently published its waste strategy, and new initiatives were planned for managing the recycling of food waste and more intensive recycling. John hoped that there was greater engagement with the community in terms of community-based recycling of materials outside of the scope of current household recycling regimes and encouraging a circular economy. Other projects, - like the reusable cups for festivals/events, - had stalled inevitably due to the lockdown. Cllr Davies reported from the perspective of Kirklees Council and emphasised its aim to recycle more waste more effectively and also on a waste-to-energy plan being developed to create district heating systems. Part of the problem for local government was a lack of clarity with regard to the national government's future plans.

The Chair asked about the possibility of reviving online on the group's Committee's website an update of the HOTT Recycling Directory for specialist recycling centres for items like yoghurt pots, foil and so on. The Climate Emergency Co-ordinator said she would be happy to develop the resource once she had an editable copy of the original Directory.

The Chair further asked about a project at Hepworth School for a RIDAN food-waste composter and was told that there was still a funding shortfall and the project had stalled. Cllr Hogley encouraged Members to try and re-start the project, and suggested they come back to the Committee to discuss possible funding.

The Chair also commented on a recycling initiative in the Co-op in Holmfirth, - recycling soft plastics like crisp packets, - and encouraged Committee Members to publicise and promote it and other similar niche recycling centres. Cllr Hogley asked that the Climate Emergency Co-ordinator enquire about the destination of these soft plastics collected at the Co-op. Huddersfield

### Agriculture, Food, Environment, Land Use, Business Economy (land-use mapping; engaging farmers and landowners)

Member Andrew Colwill reported that the land-use survey is still ongoing. A biodiversity survey has been undertaken on Cuddy's Farm which it is hoped will give some fresh ideas. Neighbouring farms have been asked to undertake self-surveys of their land use. University departments were also involved.

The Chair complimented the sub-groups on all their work and encouraged Councillors to get

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involved.

There was discussion of the role of the Climate Emergency Standing Committee in terms of working with aligned community groups, perhaps encouraging the co-working of community groups with similar focuses or at least ensuring they are complementary in their visions.

## **2122 23      Sharing of Holme Valley Parish Council content on the climate emergency**

The Climate Emergency Co-ordinator reported that a number of other local Councils have inquired about using Holme Valley Parish Council-produced content in their own work on the climate emergency. Members considered arrangements for the sharing of Holme Valley Parish Council's content with other local Councils.

**RESOLVED:** Members resolved that other Councils could rebrand Holme Valley Parish Council-produced content using their own crests and logos. The Parish Council would like an acknowledgment from Councils that they are using content adapted from Holme Valley Parish Council appended to the content. The Climate Emergency Co-ordinator would note on the website where other groups had been assisted by the Holme Valley Parish Council Climate Emergency Committee.

Cllr Davies also reported that Cllr Greaves was establishing partnership-working with the West Yorkshire Combined Authority.

Cllr Blacka said that she was very impressed by the work undertaken by the Committee and hoped that there would be more interlinked working within the Parish Council and its other Committees. She suggested a presentation to full Council on progress. She also hoped that there might be more engagement events with the general public where people "signed up" to the action plan. The Climate Co-ordinator wanted to make sure that the underlying materials (website, YouTube, social media, publications) were sufficiently high quality before committing to broadcasting the message more concertedly.

Cllr Hogley suggested holding a stand at Honley Show and the Climate Emergency Co-ordinator said she would look into this.

## **2122 24      Local Provision of Allotments**

Unfortunately, the Members involved in this project were not present.

The Chair reported that Committee members would like the provision of allotments and community growing projects in the Holme Valley to increase which might be achieved through different approaches, for example:

- 1) by petitioning Kirklees Council to allow re-purposing of small parcels of unused recreational land in the Valley.
- 2) by asking landowners to allow repurposing of parcels of land for rental as allotments.
- 3) by the Parish Council purchasing additional land for the purpose of increasing allotments.

Cllr Hogley reported that Cllr Sheard was liaising with another Councillor who has experience of buying land and that Councillor is looking into opportunities for purchasing land for potential allotment sites. Cllr Hogley further reported on Cinderhills Community Garden which is a Kirklees-led initiative to encourage local people to use this public growing space. Local people were invited to an open day at the Garden. The Bright Green Community Trust supported this initiative. There was discussion of a similar community garden in New Mill started with land provided by the church. Member John Queening asked for information on the sort of land that

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was being sought. The need for connective-working with and mutual-support from other similar activist groups was highlighted.

Cllr Blacka suggested that the Committee should work with “less-favoured” parts of the Parish including reaching out to, for example, the populations of larger housing estates.

**2122 25**

## **Yorkshire Motorsport Festival 1hr 56mins**

**NOTED:** Members noted the letter sent by the Deputy Clerk on behalf of the Committee to the organisers of the Festival.

**NOTED:** Members noted that the Parish Council is to hold an Extraordinary Meeting of Council 26 July 2021 to discuss the Motorsport Festival and the Parish Council’s involvement therewith.

Members gave feedback on the Yorkshire Motorsport Festival related to environmental measures outlined by Yorkshire Motorsport Festival organisers. The Climate Emergency Co-ordinator read from a letter from the Motorsport Festival organisers. The organisers reported that the Festival, as held, was a smaller event than planned due to the pandemic. The organisers were still assessing the Festival’s carbon footprint and were to work with the Parish Council about its offsetting. The organisers reported that litter-collection had met Motorsport UK guidelines and the race cars involved in the hill climb were tested to ensure they met legal exhaust-noise limits.

The Chair reminded the Committee of what the Motorsport Festival organisers said they were going to do from an environmental perspective, namely:

- recycle up to 85% waste; litter-pickers leaving the site as it was found;
- active encouragement of vendors using recyclable containers; avoiding single-use products; use of wooden biodegradable cutlery;
- Park-and-ride served by electric buses;
- Low-emission generators to power the festival;
- Use of local contractors and suppliers to support the local economy;
- Traffic-management company to alleviate congestion.

Cllr Bustard reported that none of the targets met industry standards of robustness regarding good practice. He said that an event of this size should be delivered to at least a minimum standard. Given that the planned event for years ahead was expected to be much larger, industry guidelines and standards needed to be met in future.

Mmbr Matthew Tulley reported on his thoughts on the event as he had witnessed it. The litter-picking had been managed well. He reported on a survey that Zero Carbon Yorkshire had done to assess the distance travelled by people attending. This representative sample of 83 people had driven 3000 miles. Matthew said that the carbon footprint of the visitors to the Festival could be calculated from that once the overall number of Festival attendees was known. The organisers had said they intend to offset the carbon footprint. Matthew reported that Zero Carbon Yorkshire, which is a charity, could undertake offsetting the carbon and were available to do so if required. Matthew Tulley would meet with Cllr Bustard to make a calculation of the carbon footprint.

There was a discussion regarding how a similar approach might be needed to all large-scale local events.

The Climate Emergency Co-ordinator said that it was important to remind local people that the Parish Council had little authority to stop or control events such as the Motorsport Festival.

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Cllr Wilson felt that it was important to review practice at the recent Festival to foster better future practice. He felt that two environmental issues stood out in terms of complaints received, - the issues of exhaust noise of the race cars and access/road closures.

The Chair said that it is important that the Parish Council's approach is about trying to make things work better rather than trying to stop events from happening. The Climate Emergency Co-ordinator reported that all locally-held festivals impacted on residents' access.

The Chair thanked Members for their contributions to the discussion.

**Close 9:15pm**

.....  
Chairman



## Email received from the Clerk, Kirkburton Parish Council 23-9-21

Hello Everyone

At a recent meeting Kirkburton PC looked into the issue of how trees were dealt with by Kirklees Council, and how they fitted into other Kirklees' policies. The Parish Council asked Kirklees if it would adopt the following measures in respect of trees across the Borough.

The reason I am emailing you is to request your Town or Parish Council to support Kirkburton's actions. I should be grateful if you would please include it on your next agenda.

Thank you  
Angela (Clerk)

### Background:

In 2019 Kirklees Council declared a climate emergency and said they would consider the environmental impact of all their decisions.

In 2020 they updated their policy for council owned trees and woodlands.

And they said they would plant more trees.

Kirkburton Parish Council asked Kirklees Council to declare that they will also strive to conserve all existing trees in Kirklees and create and enhance areas of high biodiversity as these can be of greater value in terms of carbon sequestering potential and wildlife conservation than newly planted trees.

Thousands of Kirklees trees are threatened by housing, highways, industrial and commercial developments while many have already been felled since a climate emergency was declared by the council. We ask that Kirklees Council commits to working with partner organisations to protect our existing trees, prioritises their conservation and raises awareness of their value in gardens, on our streets and in our parks, farmland and other green spaces.

The Parish Council asked Kirklees Council:

1. That they consider best use in terms of biodiversity and carbon sequestration of all land that they identify as areas for mitigating the climate and ecological crisis.
2. That Kirklees wholeheartedly adopts this policy and uses it to guide all decisions, particularly when considering planning applications.
3. Sets targets to increase the stock of both native and climate resilient trees, hedgerows and woodland on Council land, and work with partners to set and achieve similar targets across the Kirklees district.
4. Keeps account of tree felling the Council sanctions and ensures that it is more offset in terms of carbon and biodiversity.
5. Deters individuals and developers from harming trees with TPOs or any other environmental or historic designation by acting promptly to reports of imminent felling, taking immediate enforcement action and putting pressure on others, such as the Forestry Commission and central Government to do the same.

6. Values and strives to protect all existing trees in Kirklees, bearing in mind that a ten-year-old tree captures about 4 times more carbon than a sapling<sup>[i]</sup>; older trees are in general better at sequestering carbon than younger ones<sup>[ii]</sup> and one veteran oak has more biodiversity than a thousand 100-year-old oaks.<sup>[iii]</sup>
7. Works with partners to manage all existing woodlands and hedgerows to encourage natural regeneration and understorey development and ensure their long-term survival.
8. Creates and conserves areas of unimproved, semi natural or priority habitats; retains and protect areas of naturally regenerating trees and shrubs and avoids planting trees on these areas, unless it enhances their value in terms of biodiversity and carbon sequestration.
9. Takes positive steps to protect threatened species of wildlife within Kirklees
10. Stipulates that a minimum stand-off distance for all new development in the vicinity of existing woodland is created - 20 m or more from the end of the gardens, and does more to prevent tipping of garden waste and encroachment by householders.
11. Takes positive steps to protect threatened species and raise awareness within our communities of the value of all our trees (even young ones) in terms of landscape, amenity, wildlife habitat and carbon capture

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<sup>[i]</sup> <http://urbanforestrynetwork.org/benefits/air%20quality.htm>

<sup>[ii]</sup> <https://www.pacificforest.org/ee-old-trees-store-more-carbon-more-quickly-than-younger-trees/>

<sup>[iii]</sup> <sup>[iii]</sup> <https://www.nationaltrust.org.uk/features/ancient-trees-ganda>







# Energy Audit Report



Holme Valley Parish Council

holme valley  
**climate action.**  
partnership



Energy Audit Report  
Holmfirth Civic Centre  
and

Honley Library

19<sup>th</sup> July 2021 v1.0

Author: Barry Paschali  
PASCHALI Energy & Environmental Consultancy  
4100 Park Approach  
Thorpe Park  
Leeds, LS15 8GB  
Tel: 0113 397 0404  
Email: [barry.paschali@paschali.co.uk](mailto:barry.paschali@paschali.co.uk)  
Web: [www.paschali.co.uk](http://www.paschali.co.uk)

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## Document Control

<b>Identification</b>	
<b>Client</b>	Holme Valley Climate Action Partnership Limited
<b>Document Title</b>	Energy Audit Summary Report for Holmfirth Civic Centre and Honley Library
<b>Reference</b>	HVPC/Energy Audit HCC & HL

<b>Company Name</b>	<b>PASCHALi EEC</b>	<b>Holme Valley Climate Action Partnership Limited</b>
<b>Contact Name</b>	Barry Paschali	Stephen Barker
<b>Position</b>	Director – Lead Assessor	
<b>Address</b>	4100 Park Approach  Leeds LS15 8GB	Holme Valley Climate Action Partnership Holmfirth Civic Hall Holmfirth HD9 3AS
<b>e-mail</b>	barry.paschali@paschali.co.uk	
<b>Websites</b>	www.paschali.co.uk	www.holmevalleyparishcouncil.gov.uk

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Version	Date	Author	Reason for Issue/Summary of Changes	Status
0.3	09.07.21	PASCHALi	For internal review and comment	Draft
0.5	16.07.21	PASCHALi	Incorporation of comments	Draft
1.0	19.07.21	PASCHALi	Client Issue	Final

## Executive Summary

### Background Information

In response to Climate Change and support of their Climate Emergency Action Plan, Holme Valley Climate Action Partnership Limited engaged PASCHALi to carry out energy and carbon audits on the Holmfirth Civic Centre and Honley Library.

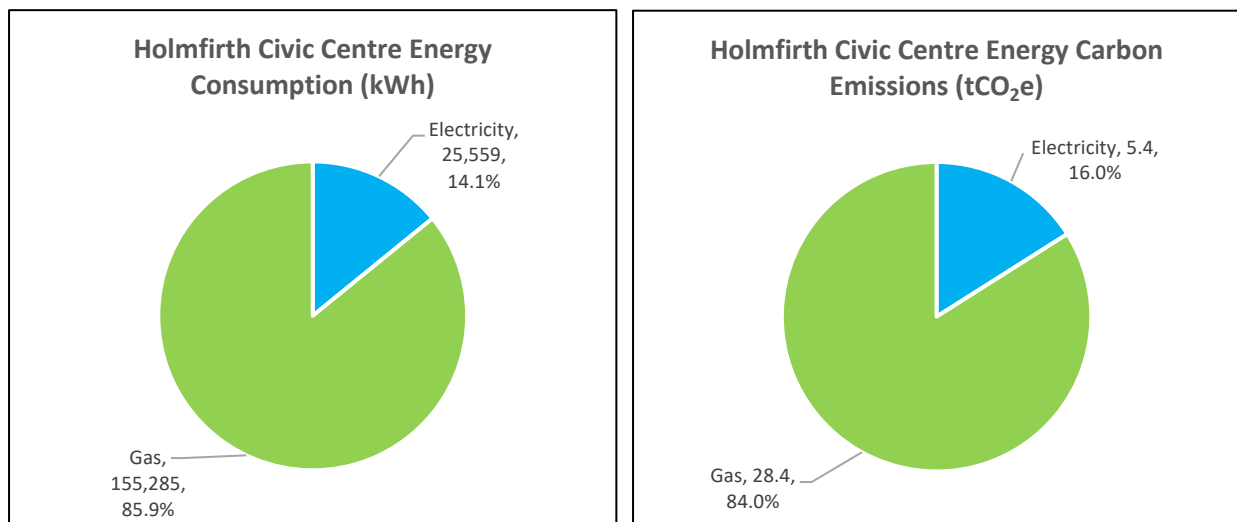
### Audit Process

The energy and carbon audit process included the establishment of total annual energy consumption and cost, the physical review of each building envelope and the energy consuming equipment within it, calculation of representative energy profiles and the identification of various energy saving and energy generation opportunities.

### Holmfirth Civic Centre Total Energy Consumption and Carbon Emissions

The overall total annual energy consumption for the Holmfirth Civic centre was calculated to be 180,844 kWh and 33.8 tCO<sub>2</sub>e.

The following two pie charts show the energy consumption profile by energy source in kWh and tCO<sub>2</sub>e.



### Holmfirth Civic Centre Summary of Energy Saving and Generation Opportunities

The following two tables provide a summary of the energy saving and feasible generation opportunities identified at the Holmfirth Civic Centre:

Table 1. Summary of the identified Holmfirth Civic Centre energy saving opportunities

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Carry out a deep retrofit of the building	£6,663	16.9	37.5
Upgrade existing lighting to modern LED type with PIR/motion and daylight controls	£2,037	2.1	1.9
Replace existing DHWS with point of use electric system	£726	2.9	2.8
Upgrade existing roof insulation (15% saving in heating)	£690	2.5	4.3
Carry out Air Pressure Test on the building, draught proof and replace fire doors	£460	1.6	10.9
Implement a behaviour change programme	£382	1.0	6.3

Upgrade existing heating controls to provide remote access	£345	1.2	1.4
Install a timer on Zip hot water boiler	£263	0.3	0.2
Install secondary glazing on appropriate windows within Grade II listed part of the site.	£115	0.4	21.7

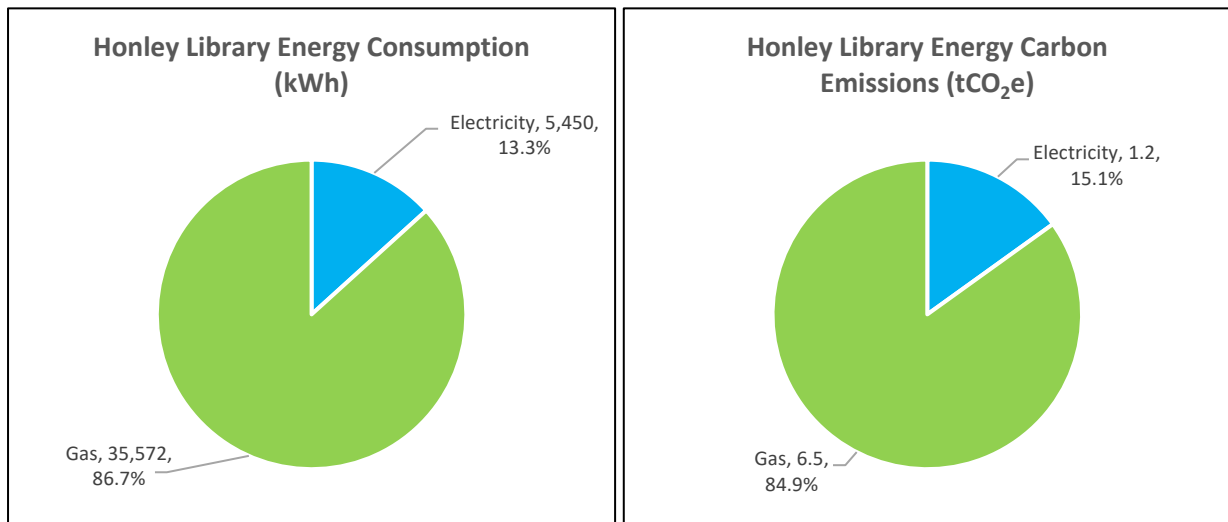
Table 2. Summary of the identified Holmfirth Civic Centre energy generation opportunities

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Solar Photovoltaic Electricity and Thermal Generation <b>with</b> Battery Storage	£5,407	8.2	15.6

### Honley Library Total Energy Consumption and Carbon Emissions

The overall total annual energy consumption for the Honley Library was calculated to be 41,022 kWh and 7.7 tCO<sub>2</sub>e.

The following two pie charts show the energy consumption profile by energy source in kWh and tCO<sub>2</sub>e.



### Honley Library Summary of Energy Saving and Generation Opportunities

The following two tables provide a summary of the energy saving and feasible generation opportunities identified at the Honley Library:

Table 3. Summary of the identified Honley Library energy saving opportunities

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Carry out a deep retrofit of the building	£1,092	3.8	45.8
Upgrade existing lighting to modern LED type with PIR/motion and daylight controls	£220	0.3	4.5
Upgrade heating controls to provide remote access	£187	1.0	1.9
Install roof insulation (if appropriate)	£187	1.0	13.4
Carry out Air Pressure Test on the building, draught proof and replace fire doors	£156	0.8	12.8
Install double glazed windows	£125	0.7	72.3

Implement a behaviour change programme	£38	0.1	6.7
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Table 4. Summary of the identified Honley Library energy generation opportunities

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Solar Photovoltaic Electricity and Thermal Generation <b>without</b> Battery Storage	£361	1.3	9.4

### Holmfirth Civic Centre Conclusions and Recommendations

1. Natural gas is the most significant energy source accounting for 85.9% of the site's energy consumption, 84.0% of the carbon emissions and 60.1% of the energy costs. Electricity accounts for 14.1% of the site's consumption, 16.0% of the carbon emissions and 39.9% of the energy costs.
2. Heating, DHWS, Lighting and Heating pumps and Plant account for 97.0% of the site's energy consumption, 96.6% of the carbon emissions and 91.6% of the energy costs. The remaining 3.0% of energy consumption, 3.4% of carbon emissions and 8.4% of energy costs are attributable to tea boilers, the lift, small power and other.
3. A significant proportion of the natural gas energy invoices for the reporting period were estimated readings. Recommend readings are regularly taken and provided to the current energy supplier to provide accurate measurement of the site's consumption.
4. The energy saving opportunities of upgrading appropriate lighting to LED, upgrading the roof insulation, replacing existing DHWS with an electric point of use system, installing secondary glazing, draught proofing and carrying a behaviour change programme have a total undiversified savings of 63,980 kWh, £5,017 and 11.9 tCO<sub>2</sub>e with a payback of 3.9 years.
5. As an alternative to item 4 above, a deep retrofit of the centre was also considered. Annual savings of up to 90,422 kWh, £6,663 and 16.9tCO<sub>2</sub>e could be achieved with a payback of 37.5 years.
6. A combined solar photovoltaic electricity and thermal generation system with battery storage would generate circa 20,593 kWh of electricity and 20,892 kWh of heat annually. This would provide savings of £5,407 and 8.2 tCO<sub>2</sub>e with a payback of 15.6 years.
7. Further energy generation and other opportunities have been provided in Appendix A and B.

### Honley Library Conclusions and Recommendations

1. Natural gas is the most significant energy source accounting for 86.7% of the site's energy consumption, 84.9% of the carbon emissions and 57.1% of the energy costs. Electricity accounts for 13.3% of the site's consumption, 15.1% of the carbon emissions and 42.9% of the energy costs.
2. Heating, DHWS, Small Power and Lighting for 95.7% of the site's energy consumption, 95.0% of the carbon emissions and 86.0% of the energy costs. The remaining 4.3% of energy consumption, 5.0% of carbon emissions and 14.0% of energy costs are attributable to kettles, other white goods and other sources.
3. Issues with current heating controls is likely to have caused the non-evident relationship between heating degree days and outside air temperature. Review of heating controls is recommended to ensure appropriateness for the site.
4. The energy saving opportunities of upgrading appropriate lighting to LED, upgrading the heating controls, installing insulation, double glazing, draught proofing and implementing a

behaviour change programme have a total annual undiversified savings of 20,661 kWh, £912 and 3.8 tCO<sub>2</sub>e with a payback of 16.6 years.

5. As an alternative to the energy saving opportunities identified in point 4 above, a deep retrofit was considered. This would generate annual savings of up to 20,511 kWh, £1,092 and 3.8 tCO<sub>2</sub>e with a payback of 45.8 years.
6. A combined solar photovoltaic electricity and thermal generation system without a battery storage would generate circa 642 kWh of electricity and 6,526 kWh of heat annually. This would provide savings of £361 and 1.3 tCO<sub>2</sub>e with a payback of 9.4 years.
7. Further energy generation and other opportunities have been provided in Appendix C and D.



## 1.0 Background

Holme Valley Parish Council recognises that Climate Change poses a substantial risk that will likely have a detrimental impact on future generations if left unmanaged. The Council's response to Climate Change includes:

1. The establishment of Holme Valley Climate Change Action Partnership Limited (HVCAP)
2. The implementation of the Holme Valley Parish Council's Climate Emergency Action Plan which commits the Council to become carbon neutral by 2030.

In support of the above, PASCHALi were engaged by HVCAP to carry out energy and carbon saving audits on the Holmfirth Civic Centre and the Honley Library. To ensure a harmonious approach, the principles of BS EN 16247 were followed. The findings of the report will support HVCAP with the development of their roadmap to achieving carbon net zero.

The energy and carbon saving audits were undertaken on 8<sup>th</sup> June 2021. Weather conditions were clear and dry.

## 2.0 Audit Process

### 2.1 Energy and carbon audit description

The aims of the energy and carbon audit(s) are:

1. To carry out an Energy Analysis and establish the total annual energy consumption and cost.
2. To review where possible:
  - a. The thermal performance of the building envelope such as insulation, window type, draft proofing, thermal insulation, and general air leakage performance.
  - b. Existing energy consuming equipment - including their type, age and operation.
3. Establish representative energy profiles
4. Identify ways to reduce energy and carbon emissions through physical and behavioural opportunities.

### 2.2 Energy audit methodology

In agreement with the Client the following methodology and information was used for the energy and carbon audit:

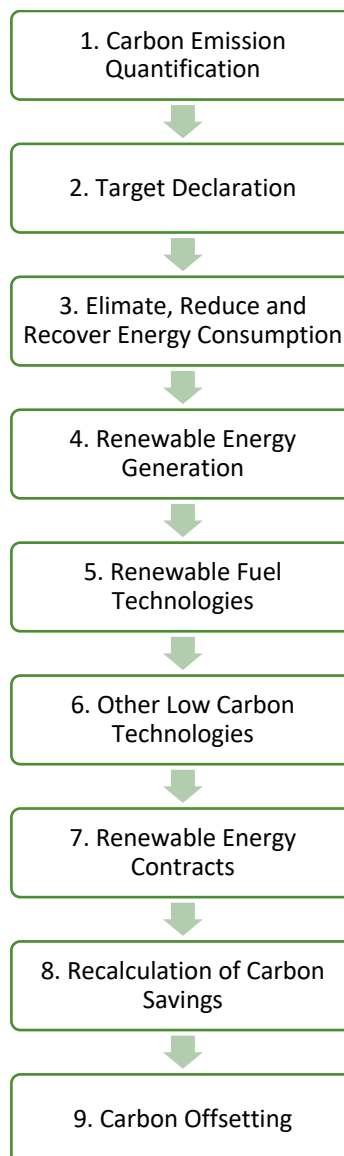
1. Actual utility consumption & cost recorded by the client for their internal reporting purposes.
2. BEIS 2020 CO<sub>2</sub>e conversion factors were applied to energy kWh consumption to calculate carbon emissions.
3. The Energy Consumption reference period and the physical audit reference period was agreed to be the 12 months from 1<sup>st</sup> February 2019 to 31<sup>st</sup> January 2020. This was to take into account normal working conditions prior to the Covid-19 pandemic.
4. The energy audits followed the principles of BS EN 16247.
5. No unusual conditions were reported during the reference period.
6. The energy saving opportunities identified are indicative and require further detailed analysis if they become the preferred option. Capital costs and savings are indicative only and are based on PASCHALi's knowledge. No contractor quotations were sought or obtained.
7. Payback calculations have been used as the method of cost analysis.
8. The cumulative impact of each energy saving opportunity has not been considered. It is recommended that this is reviewed at a later date once the list of energy saving opportunities has been prioritised.

### 3.0 Roadmap to Net Zero

The demand for organisations to demonstrate carbon emission reduction and management has significantly increased in the last decade, examples of this can be seen by the introduction of regulations such as the CRC Energy Efficiency Scheme, Streamlined Energy and Carbon Reporting (SECR) and Energy Savings Opportunity Scheme (ESOS). This increased demand has seen organisations commit to becoming carbon neutral i.e. by using a variety of methods and processes their resulting net carbon emissions equate to zero. Examples of such organisations include Kingspan, Rolls Royce, Microsoft, Amazon, Google, Aldi UK and Ireland, Sky and GSK UK.

Currently there is not an approved standard (ISO or other) available that organisations can implement to achieve and demonstrate carbon neutrality. Organisations can self-declare and then verify through third party organisations; however, the methodologies, requirements and boundaries used by these third parties vary.

A Publicly Available Specification (PAS) 2060:2014, published by the BSI Standards Limited, is now available and provides a framework on how organisations can demonstrate carbon neutrality. This PAS is working towards becoming an International Standard (ISO) and is accepted in the industry as a good framework for organisations becoming carbon neutral. Following the principles of this PAS, PASCHALi have developed a methodology which can be followed to help HVCAP achieve and demonstrate Carbon Neutrality. The process is outlined below:



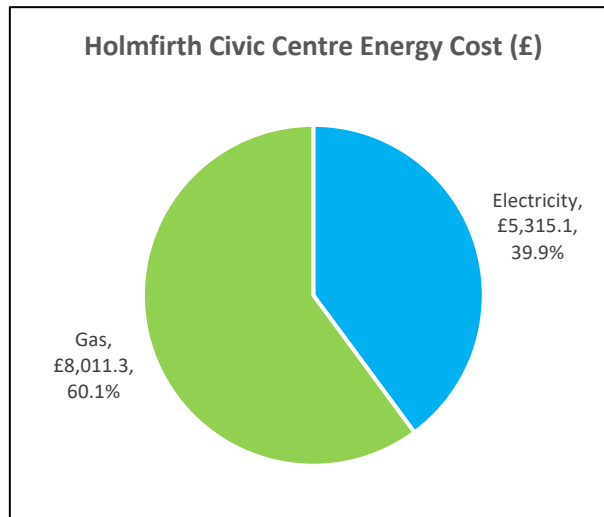
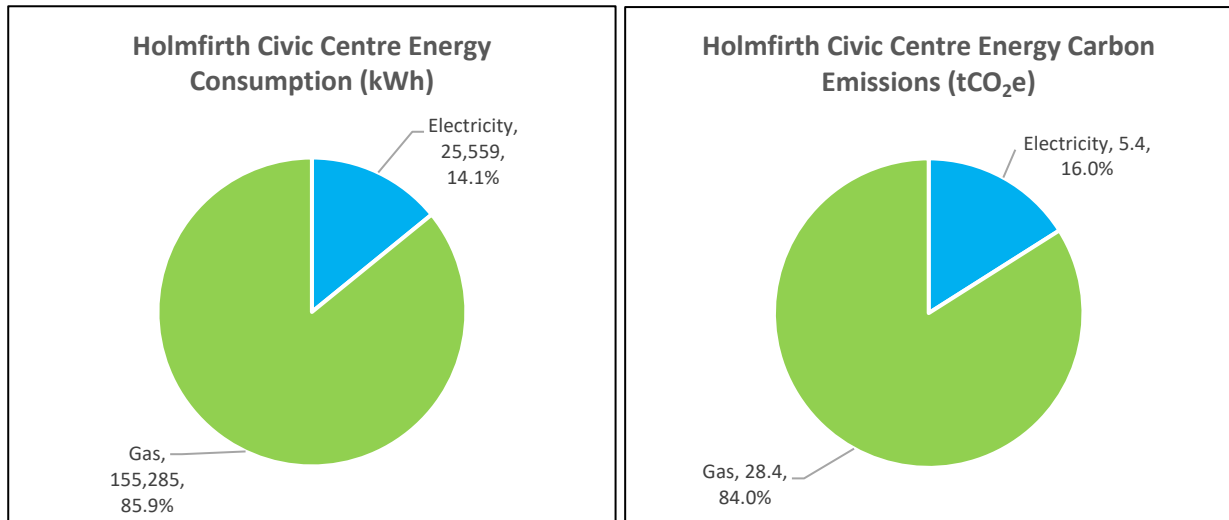
## 4.0 Analysis of Total Energy Consumption

An overall energy analysis was undertaken to identify the consumption, costs and carbon emissions for Holmfirth Civic Centre and Honley Library. The below tables and bar charts show individual breakdowns of energy, carbon and cost for each site:

### 4.1 Holmfirth Civic Centre

Table 5. Holmfirth Civic Centre energy, carbon, and cost summary

Energy Source	kWh Consumption	Carbon Emissions (tCO <sub>2</sub> e)	Cost (£)	% of Total Consumption	% of Total Carbon emissions	% of Total Cost
Electricity	25,559	5.4	£5,315.13	14.1%	16.0%	39.9%
Gas	155,285	28.4	£8,011.26	85.9%	84.0%	60.1%
<b>TOTAL</b>	<b>180,844</b>	<b>33.9</b>	<b>£13,326.39</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

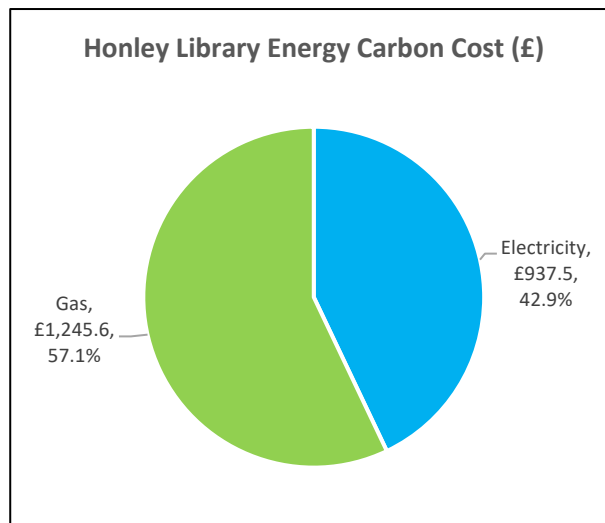
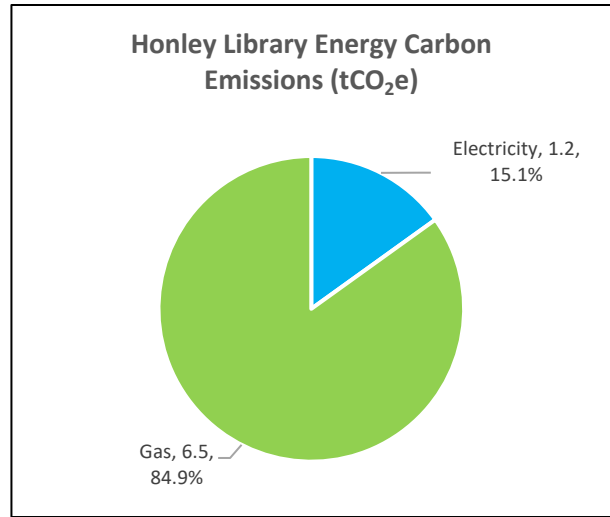
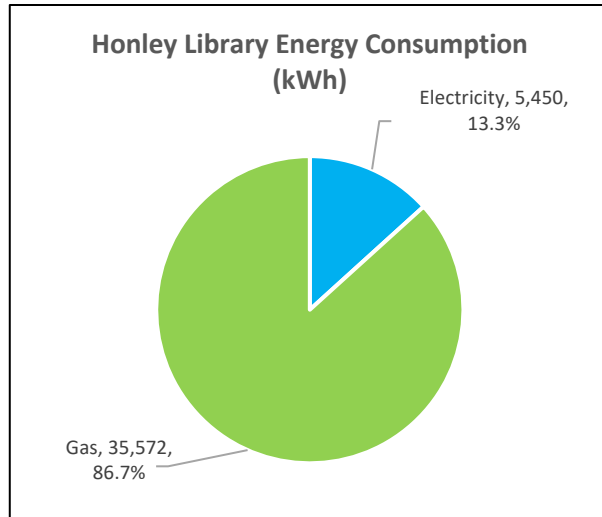


Natural gas is the most significant energy source accounting for 85.9% (155,285 kWh) of energy consumption, 84.0% (28.4 tCO<sub>2</sub>e) of energy carbon emissions and 60.1% (£8,011.3) of energy costs. Electricity accounts for 14.1% (25,559 kWh) of energy consumption, 16.0% (5.4 tCO<sub>2</sub>e) of energy carbon emissions and 39.9% (£5,315.1) of energy costs.

## 4.2 Honley Library

Table 6. Honley Library energy, carbon, and cost summary

Energy Source	kWh Consumption	Carbon Emissions (tCO <sub>2</sub> e)	Cost (£)	% of Total Consumption	% of Total Carbon emissions	% of Total Cost
Electricity	5,450	1.2	£937.47	13.3%	15.1%	42.9%
Gas	35,572	6.5	£1,245.63	86.7%	84.9%	57.1%
<b>TOTAL</b>	<b>41,022</b>	<b>7.7</b>	<b>£2,183.10</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



Natural gas is the most significant energy source accounting for 86.7% (35,572 kWh) of energy consumption, 84.9% (6.5 tCO<sub>2</sub>e) of energy carbon emissions and 57.1% (£1,245.6) of energy costs. Electricity accounts for 13.3% (5,450 kWh) of energy consumption, 15.1% (1.2 tCO<sub>2</sub>e) of energy carbon emissions and 42.9% (£937.5) of energy costs.

## 5.0 Energy – Physical Audits

### 5.1 Building Energy Audit – Holmfirth Civic Centre

This naturally ventilated building is located in the centre of Holmfirth and consists of 3 floors and cellar. The site comprises two halls, receptions rooms, exhibition room, club room, two kitchens and amenities. These rooms and kitchens can be hired by the public for events. The site was reported to operate during the following times:

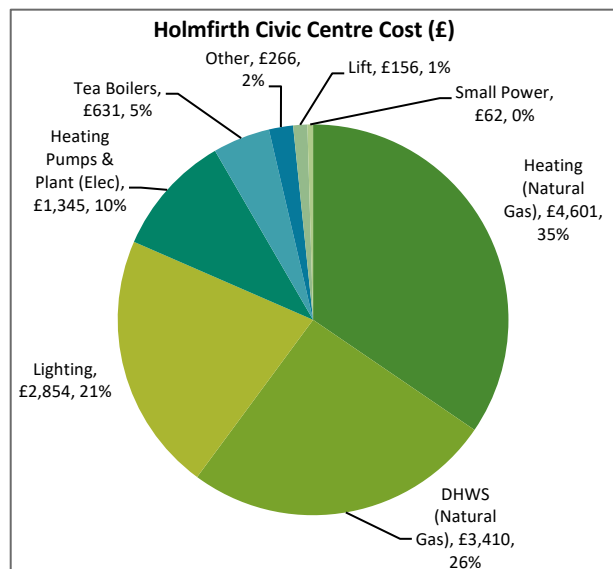
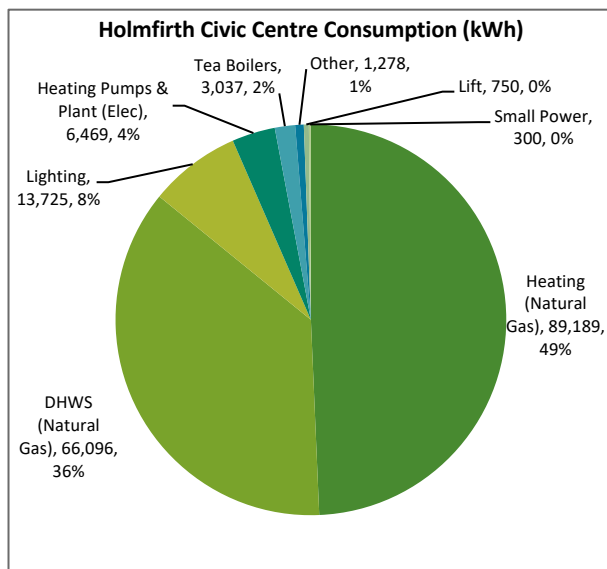
Table 7. Holmfirth Civic Centre operating times

Days of the Week	Civic Centre Staff	Available Hiring Times
Monday to Thursday	09:30hrs to 14:30hrs	16:00hrs to 22:00hrs
Friday	09:30hrs to 14:30hrs	-
Saturday	-	08:00hrs to 16:00hrs
Sunday	-	17:00hrs to 22:00hrs (once a month)

Taking the above into consideration and the additional information obtained from the physical on-site audit, the following energy profile was calculated:

Table 8. Holmfirth Civic Centre energy profile

Utility	Use	Consumption (kWh)	Cost (£)	Carbon Emissions (tCO <sub>2</sub> e)	% of site consumption	% of site cost	% of carbon emissions (tCO <sub>2</sub> e)
Electricity	Lighting	13,725	£2,854	2.9	7.6%	21.4%	8.6%
	Heating Pumps & Plant (Elec)	6,469	£1,345	1.4	3.6%	10.1%	4.1%
	Tea Boilers	3,037	£631	0.6	1.7%	4.7%	1.9%
	Other	1,278	£266	0.3	0.7%	2.0%	0.8%
	Lift	750	£156	0.2	0.4%	1.2%	0.5%
	Small Power	300	£62	0.1	0.2%	0.5%	0.2%
	<b>Total Elec</b>	<b>25,559</b>	<b>£5,315</b>	<b>5.4</b>	<b>14.1%</b>	<b>39.9%</b>	<b>16.0%</b>
Gas	Heating	89,189	£4,601	16.3	49.3%	34.5%	48.2%
	DHWS	66,096	£3,410	12.1	36.5%	25.6%	35.7%
	<b>Total Gas</b>	<b>155,285</b>	<b>£8,011</b>	<b>28.4</b>	<b>85.9%</b>	<b>60.1%</b>	<b>84.0%</b>
<b>Total</b>		<b>180,844</b>	<b>£13,326</b>	<b>33.8</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## 5.2 Building Energy Audit – Honley Library, Honley

This is a naturally ventilated building based in the centre of Honley and comprises a library, plant room and staff amenities. The site was reported to operate during the following times:

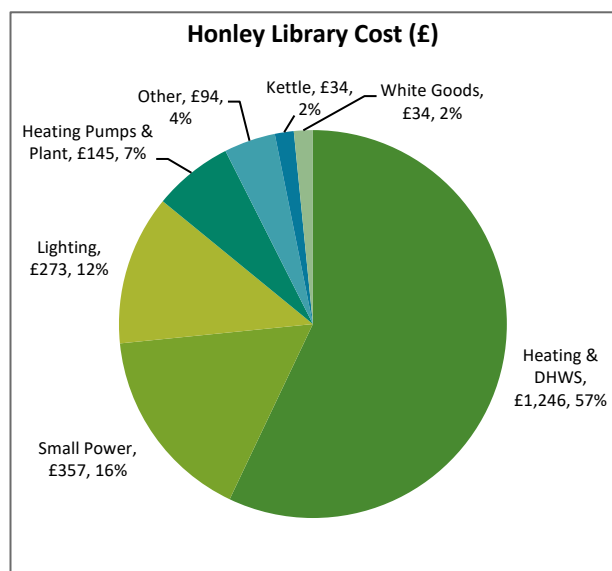
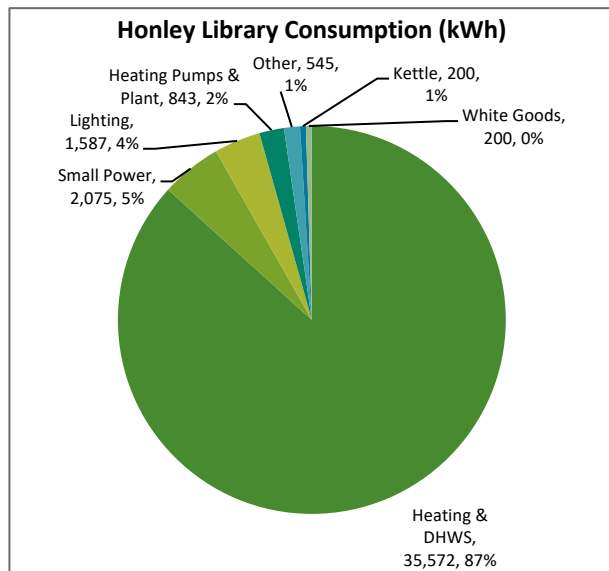
Table 9. Honley Library operating times

Days of the Week	Opening Times
Monday & Friday	13:00hrs to 17:00hrs
Tuesday	13:00hrs to 18:00hrs
Wednesday & Saturday	10:00hrs to 13:00hrs
Thursday & Sunday	Closed

Taking the above into consideration and the additional information obtained from the physical on-site audit, the following energy profile was calculated:

Table 10. Honley Library Energy Profile

Utility	Use	Consumption (kWh)	Cost (£)	Carbon Emissions (tCO <sub>2</sub> e)	% of site consumption	% of site cost	% of carbon emissions (tCO <sub>2</sub> e)
Electricity	Small Power	2,075	£357	0.44	5.1%	16.4%	5.7%
	Lighting	1,587	£273	0.34	3.9%	12.5%	4.4%
	Heating Pumps & Plant	843	£145	0.18	2.1%	6.6%	2.3%
	Other	545	£94	0.12	1.3%	4.3%	1.5%
	Kettle	200	£34	0.04	0.5%	1.6%	0.6%
	Other White Goods	200	£34	0.04	0.5%	1.6%	0.6%
	<b>Total Elec</b>		<b>5,450</b>	<b>£937</b>	<b>1.2</b>	<b>13.3%</b>	<b>42.9%</b>
Gas	Heating & DHWS	35,572	£1,246	6.5	86.7%	57.1%	84.9%
	<b>Total Gas</b>	<b>35,572</b>	<b>£1,246</b>	<b>6.5</b>	<b>86.7%</b>	<b>57.1%</b>	<b>84.9%</b>
<b>Total</b>		<b>41,022</b>	<b>£2,183</b>	<b>7.7</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



### 5.3 Degree Day Analysis

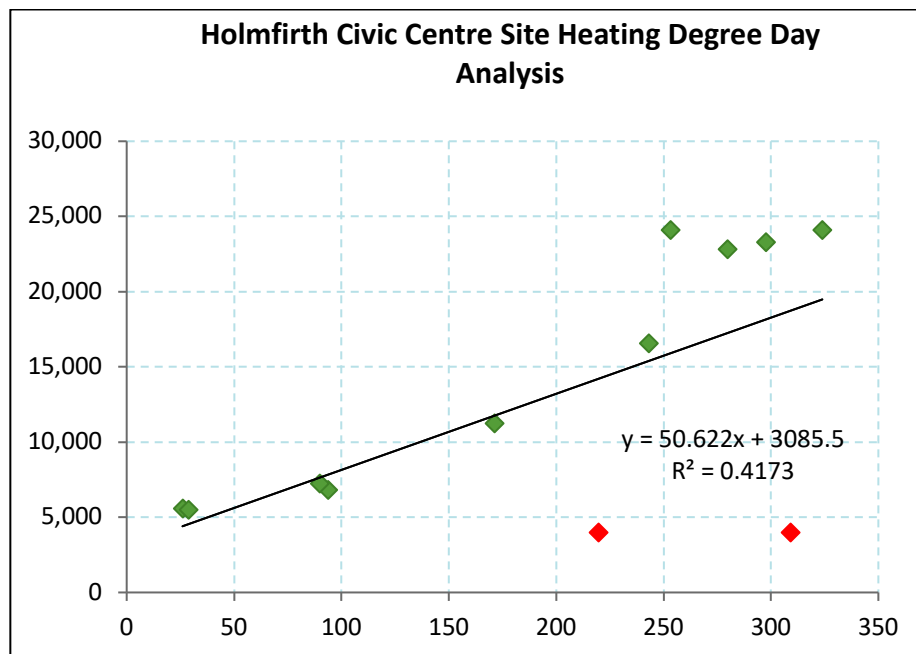
Degree days are used by the energy industry to calculate the effect of outside air temperature on building energy consumption and performance. They are a way of normalising year to year variations of outside temperature. Two-degree days measurements are commonly used. They are:

1. Heating degree days measure how much (in degrees), and for how long (in days) outside air temperature was **lower** than a specific base temperature.
2. Cooling degree days measure how much (in degrees), and for how long (in days), outside air temperature was **higher** than a specific base temperature.

A heating degree day analysis was undertaken for both sites. The following two graphs summarise the main findings.

A cooling degree day analysis was deemed inappropriate as both sites are naturally ventilated and therefore highly unlikely to demonstrate a correlation between energy and cooling degree days.

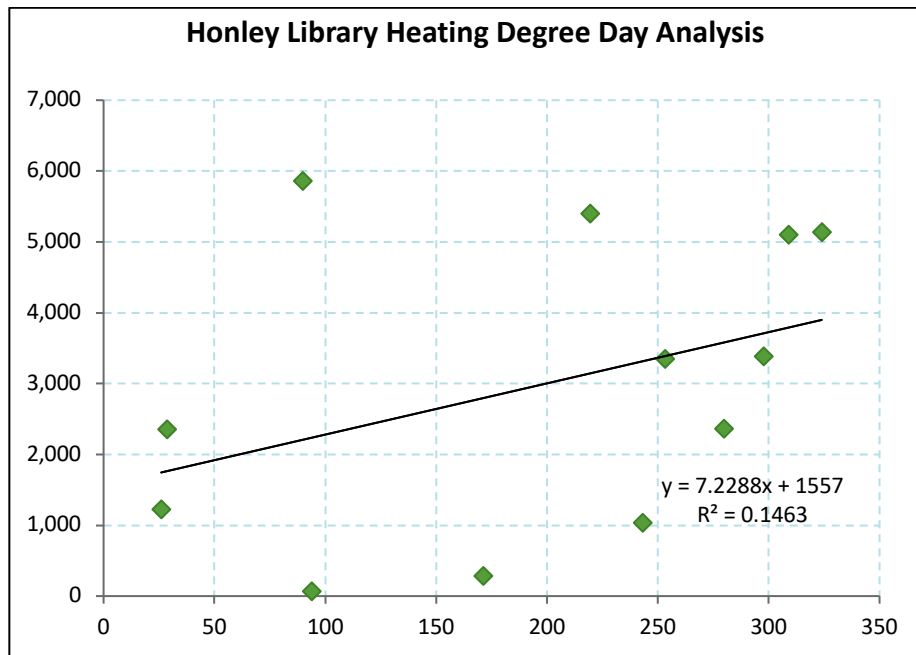
#### 4.3.1 Holmfirth Civic Centre Heating Degree Day Analysis



On inspection of the provided gas bills, it appears that a significant proportion of the invoices in the reporting year were estimated by the energy supplier and an actual reading was provided in Oct-19. Therefore, this has affected the results of the heating degree day analysis. It is recommended that regular meter readings are taken by site and provided to the energy supplier to ensure that accurate bills and consumption is regularly recorded.

The above heating degree day analysis demonstrates a weak relationship between heating degree days and outside air temperature. On closer review it is clear that there are two potentially spurious points in Oct and Nov 2019 (highlighted in red on the above graph) that are affecting the heating degree day results. If these two points are excluded from the analysis, then the relationship between heating degree days and outside air temperature is more significant, giving a  $R^2$  of 0.93.

### 5.3.2 Honley Library Heating Degree Day Analysis



The above chart shows that there is no evident relationship between heating degree days and outside air temperature. This could be due to the site's reported issues with controlling temperature settings. Further review is recommended to determine whether the existing controls are suitable for use.



## 6.0 Energy and Carbon Saving Opportunities

### 6.1 Holmfirth Civic Centre

Following the physical audit of the Holmfirth Civic Centre, energy saving and generation opportunities were explored to determine their appropriateness for the site. The following sections provide an overview of the main findings.

#### 6.1.1 Lighting

The existing lighting varied throughout the site, between LED, Fluorescent and Halogen/Metal Halide types. Circa 85 nr internal light fittings were observed on-site, circa 55 are non-LED types used for general and stage lighting. Controls were observed to be manual switching. As lighting accounts for circa 54% of the overall electricity consumption it would be beneficial to upgrade them to more efficient LED type with appropriate PIR/motion and lighting controls. Pictures of some of the observed lighting are shown below:



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 11. Holmfirth Civic Centre Energy Saving Opportunities Summary - Lighting

Opportunity	Electricity savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Upgrade lighting to LED type	8,759.9	1.9	£1,822	£3,315	1.8
Additional motion and daylight controls on new LED light fittings	1,031.7	0.2	£215	£634	3.0
<b>TOTAL</b>	<b>9,791.6</b>	<b>2.1</b>	<b>£2,036</b>	<b>£3,960</b>	<b>1.9</b>

### 6.1.2 Heating system

The site’s heating provision is supplied by three Wessex 100 modular boilers to three main zones: Main Hall, Lesser Hall, and Reception. Site reported to manually adjust the boiler timing weekly to account for the projected heating demand. To provide stricter control of the system, consider upgrading the controls to allow remote access and adjustment. Pictures of the boilers and controls are shown below:



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 12. Holmfirth Civic Centre Energy Saving Opportunities Summary - Heating

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Upgrade heating controls	6,689	1.2	£345	£500	1.4
<b>TOTAL</b>	<b>6,689</b>	<b>1.2</b>	<b>£345</b>	<b>£500</b>	<b>1.4</b>

### 6.1.3 Domestic Hot Water Service (DHWS)

The domestic hot water service (DHWS) is provided by an 11.7 kW direct gas fired boiler located in the plant room adjacent to the lesser hall, please see a picture below of the direct gas fired boiler used for DHWS.

It is understood that the domestic hot water service is supplied to all kitchen and welfare facilities. Due to the limited day usage and usage being dependent on the hiring of space, there is potential to change the current DHWS to an electric point of use system. This will reduce the heat loss through unnecessary distribution through the existing secondary circulation system.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 13. Holmfirth Civic Centre Energy Saving Opportunities Summary - DHWS

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Install alternative electric point of use DHWS	16,524	2.9	£726	£2,000	2.8
<b>TOTAL</b>	<b>16,524</b>	<b>2.9</b>	<b>£726</b>	<b>£2,000</b>	<b>2.8</b>

Presented savings take into account increases in electricity consumption, cost and carbon emissions.

### 6.1.4 Building Fabric - Windows

It was reported that a proportion of the windows within the Grade II listed part of the building have secondary glazing installed. Additional natural gas savings can be generated from installing secondary glazing on remaining appropriate windows. Please find below a picture of a window that could be secondary glazed.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 14. Holmfirth Civic Centre Energy Saving Opportunities Summary – Building Fabric (Windows)

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Install secondary glazing on appropriate windows	2,230	0.4	£115	£2,500	21.7
<b>TOTAL</b>	<b>2,230</b>	<b>0.4</b>	<b>£115</b>	<b>£2,500</b>	<b>21.7</b>

### 6.1.5 Building Fabric - Roof insulation

Due to access restrictions, the roof insulation could not be inspected. However, if the insulation is limited and can be improved then a saving of between to **10% to 15%** on heating gas consumption is likely achievable. It is recommended that a specialist is engaged to assess the roof insulation and accurately determine the saving potential.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 15. Holmfirth Civic Centre Energy Saving Opportunities Summary – Building Fabric (Roof Insulation)

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
If able, install additional roof insulation	8,919 to 13,378	1.6 to 2.5	£460 to £690	£3,000	4.3 to 6.5
<b>TOTAL</b>	<b>8,919 to 13,378</b>	<b>1.6 to 2.5</b>	<b>£460 to £690</b>	<b>£3,000</b>	<b>4.3 to 6.5</b>



### 6.1.5 Building Fabric – Air Infiltration

Although an air pressure test was not carried out as part of this assessment, due to age and type of building there is potential for significant air leakage which will likely cause an increase in gas heating usage. It is recommended that an air pressure test is carried out to determine the extent of air leakage and using the results to carry out draught proofing and replacement of old fire doors.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 16. Holmfirth Civic Centre Energy Saving Opportunities Summary – Building Fabric (Air Infiltration)

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Conduct Air Pressure Test on the building, draught proof and replace fire doors.	8,919	1.6	£460	£5,000	10.9
<b>TOTAL</b>	<b>8,919</b>	<b>1.6</b>	<b>£460</b>	<b>£5,000</b>	<b>10.9</b>

### 6.1.6 Hot Water Zip Boilers

It was noted that the kitchen operates a Zip water boiler for the provision of boiling water. It does not appear to have timer controls installed and is constantly left on. Please see a picture of the Zip boiler below.

Energy savings can be achieved by installing timer controls on the Zip boiler to switch it off when it is not needed e.g., weeknights and weekends.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 17. Holmfirth Civic Centre Energy Saving Opportunities Summary – Hot Water Zip Boilers

Opportunity	Electricity Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Install timer controls on existing Zip Boiler	1,264	0.27	£263	£50	0.2
<b>TOTAL</b>	<b>1,264</b>	<b>0.27</b>	<b>£263</b>	<b>£50</b>	<b>0.2</b>

### 6.1.7 Behaviour Change Programme

To support and enhance existing internal procedures, consider implementing a behaviour change programme. As three staff operate on site, consider engaging other Holme Valley Parish Council sites to encourage and support energy saving opportunities in other areas. Savings shown below are an estimate of what could potentially be achieved at the Holmfirth Civic Centre only.

Table 18. Holmfirth Civic Centre Energy Saving Opportunities Summary – Behaviour Change Programme

Opportunity	Energy Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Implement a behaviour change Programme	5,184	1.0	£382	£2,400	6.3
<b>TOTAL</b>	<b>5,184</b>	<b>1.0</b>	<b>£382</b>	<b>£2,400</b>	<b>6.3</b>

### 6.1.8 Entire Building Envelope – Deep Retrofit

As an alternative to opportunities 6.1.1 to 6.1.7, consideration could also be given to undertaking a deep retrofit of the entire building. This is a whole building analysis and construction process which will take into consideration often high up-front cost opportunities such as windows and HVAC plant that have much longer pay-backs. Savings of up to 50% on energy and carbon emissions can be achieved from undertaking this opportunity.

Table 19. Holmfirth Civic Centre Energy Saving Opportunities Summary – Deep Retrofit

Opportunity	Energy Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Deep Retrofit	90,422	16.9	£6,663	£250,000	37.5
<b>TOTAL</b>	<b>90,422</b>	<b>16.9</b>	<b>£6,663</b>	<b>£250,000</b>	<b>37.5</b>

### 6.1.9 Renewable Generation Opportunities

Multiple renewable generation opportunities were assessed against community impact, ease of installation and applicability. They were then categorized into Green (feasible), Amber (further investigation required) and Red (not feasible). The following sections provides a summary of the generation potential and carbons savings from green and amber opportunities as well as an explanation of why some opportunities were not feasible (red).

#### 6.1.9.1 Feasible Renewable Generation Opportunities (Green)

Table 20. Holmfirth Civic Centre Energy Generation Opportunities Summary – Feasible

Opportunity	Energy Generation & Usage (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Savings & Incentives (£)	Capital Costs (£)	Payback (yrs)
Solar Photovoltaic Electricity Generation - Without Battery Storage (25% usage and 75% sold back to the grid)	25% use = 5,223 75% Grid= 15,669  Total 20,892	1.1	£1,635	£42,480	26.0
Solar Photovoltaic Electricity Generation -With Battery Storage (100% usage)	100% use = 20,892	4.4	£4,345	£66,480	15.3
Solar Photovoltaic Electricity & Thermal Generation-With Battery Storage (100% usage)	Elec = 20,892 Thermal = 20,593	8.2	£5,407	£84,400	15.6

#### 6.1.9.2 Further Investigation Required Renewable Generation Opportunities (Amber)

Table 21. Holmfirth Civic Centre Energy Generation Opportunities Summary – Further Investigation Required

Opportunity	Energy Generation & Usage (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Savings (£)	Capital Costs (£)	Payback (yrs)
Wind – VAWT (Vertical Axis -With Battery Storage (100% usage))	17,890	3.8	£3,721	£74,000	19.9
Heat Pump – Air Source	115,202	19.4	£584	£27,500	47.1
Heat Pump – Ground source Vertical (Borehole)	115,202	19.4	£584	£51,500	88.1
High Efficiency Storage Heaters	115,202	2.0	-£16,528	£10,000	N/A
Underfloor Heating	108,002	6.6	£1,857	£22,500	12.1
Solar Thermal Generation	20,593	3.8	£1,062	£6,265	5.9



### 6.1.9.3 Not Feasible Renewable Generation Opportunities (Red)

Table 22. Holmfirth Civic Centre Energy Generation Opportunities Summary – Non-Feasible

Type	Opportunity	Rationale
Electricity	Hydro	<ol style="list-style-type: none"> <li>1. Planning permission and complex surveys and impact studies will be required</li> <li>2. Insufficient water head to generate enough energy to be worthwhile.</li> </ol>
	Tidal/Wave	<ol style="list-style-type: none"> <li>1. No local access to tidal waters nearby.</li> </ol>
	Anaerobic Digestion	<ol style="list-style-type: none"> <li>1. Limited space for equipment</li> <li>2. Lack of guaranteed fuel source</li> <li>3. Potential to release offensive odours</li> </ol>
Thermal	Heat Pump – Ground Source Horizontal	<ol style="list-style-type: none"> <li>1. Available ground area is insufficient for a horizontal system.</li> <li>2. The borehole type system is very disruptive, geological assessments and surveys will need to be carried out.</li> </ol>
	Heat Pump – Water Source	<ol style="list-style-type: none"> <li>1. Holme river is circa 100m distance from site. In addition, multiple buildings and car parks are in between the civic centre and the river. There would likely to be significant disruptions if this generation measure was installed.</li> </ol>
	Geothermal – High Grade Heat	<ol style="list-style-type: none"> <li>1. No significant source of heat below the site reported.</li> </ol>
	Biomass	<ol style="list-style-type: none"> <li>1. Insufficient space for equipment</li> </ol>
Hybrid	Combined Heat and Power (CHP)	<ol style="list-style-type: none"> <li>1. Insufficient space for equipment</li> </ol>
Energy Storage	Flywheel	<ol style="list-style-type: none"> <li>1. Not suitable for current site usage as it is a short-term energy storage solution.</li> </ol>
	Gravitational	<ol style="list-style-type: none"> <li>1. No suitable sites nearby e.g., mine shafts</li> </ol>
	Pumped Hydro	<ol style="list-style-type: none"> <li>1. No suitable sites nearby e.g., mine shafts</li> </ol>

### 6.1.8.4 Other Low Carbon Solutions - Hydrogen

There are a number of studies and projects in the UK testing out whether replacing natural gas with hydrogen is safe, how much it would cost, and how disruptive the process would be. We recommend that when the results of these studies are officially released then the viability of using hydrogen as an alternative fuel source is considered. Early results show that upgrading equipment to safely operate with hydrogen gas will likely have a significant cost with paybacks greater than 10 years.

## 6.2 Honley Library

Following the physical audit of the Honley Library, energy saving and generation opportunities were explored to determine their appropriateness for site. The following sections provide an overview of the main findings.

### 6.2.1 Lighting

The existing lighting throughout the site was observed to be T8 Fluorescent tube type with manual controls. In addition, the site has roof lights that provide internal space with natural daylight. Consideration should be given to the replacement of artificial lighting with modern energy efficient LED type with Motion/PIR and daylight controls. Below are pictures of the existing lighting and roof lights. Specialists should review the lighting design of the site prior to any installation to ensure that recommended LED replacements are fit for purpose.

In support of this opportunity, we have drafted a lighting brief to support any quotes for upgrading of lighting installations (please see Appendix E for further details).



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 23. Honley Library Energy Saving Opportunities Summary - Lighting

Opportunity	Electricity Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Upgrade lighting to LED type	1,203.8	0.26	£207	£900	4.3
Additional motion and daylight controls on new LED light fittings	76.6	0.02	£13	£90	6.8
<b>TOTAL</b>	<b>1,280.4</b>	<b>0.3</b>	<b>£220</b>	<b>£990</b>	<b>4.5</b>

### 6.2.2 Heating and Domestic Hot Water Service

The site’s heating provision and Domestic Hot Water Service (DHWS) is supplied by a Remeha 45s Quinta Ace condensing boiler. The boiler is controlled by a Satchwell DC1100 Optimiser/Compensator. The boiler and controls are located in an adjacent room, only accessible from the outside. Site reported that controls are adjust manually.

To provide stricter control of the system, consider upgrading the controls to allow remote access and adjustment. Pictures of the heating system and controls have been provided below.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 24. Honley Library Energy Saving Opportunities Summary - DHWS

Opportunity	Gas savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Upgrade heating controls	5,336	1.0	£187	£350	1.9
<b>TOTAL</b>	<b>5,336</b>	<b>1.0</b>	<b>£187</b>	<b>£350</b>	<b>1.9</b>

### 6.2.3 Behaviour Change Programme

To support and enhance existing internal procedures, consider implementing a behaviour change programme. Consider engaging other Holme Valley Parish Council sites to encourage and support energy saving opportunities in other areas. Savings shown below are an estimate of what could potentially be achieved at the Honley Library only.

Table 25. Honley Library Energy Saving Opportunities Summary – Behaviour Change

Opportunity	Energy Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Implement a behaviour change Programme	706	0.13	£38	£250	6.7
<b>TOTAL</b>	<b>706</b>	<b>0.13</b>	<b>£38</b>	<b>£250</b>	<b>6.7</b>

### 6.2.4 Building Fabric – Roof Insulation

Due to access restrictions, the roof insulation could not be inspected. However, if the insulation is limited and can be improved then a saving of up to 20% on heating gas consumption is likely achievable. It is recommended that a specialist is engaged to assess the roof insulation and accurately determine the saving potential.



The below table provides a summary of the potential savings (energy, carbon, and cost) and likely payback period:

Table 26. Honley Library Energy Saving Opportunities Summary – Roof Insulation

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
If able, install additional roof insulation	5,336	1.0	£187	£2,500	13.4
<b>TOTAL</b>	<b>5,336</b>	<b>1.0</b>	<b>£187</b>	<b>£2,500</b>	<b>13.4</b>

### 6.2.5 Building Fabric – Windows

The windows observed on-site were single-pane wooden framed types. Additional gas savings can be generated from installing double glazed windows on appropriate windows. Please see below a picture of a window that could be double glazed.



Table 27. Honley Library Energy Saving Opportunities Summary – Windows

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Install double glazing on appropriate windows	3,557	0.7	£125	£9,000	72.3
<b>TOTAL</b>	<b>3,557</b>	<b>0.7</b>	<b>£125</b>	<b>£9,000</b>	<b>72.3</b>



### 6.2.6 Building Fabric – Air Infiltration

Although an air pressure test was not carried out as part of this assessment, due to age and type of building there is potential for significant air leakage which will likely cause an increase in gas heating usage. It is recommended that an air pressure test is carried out to determine the extent of air leakage and using the results to carry out draught proofing.



Table 28. Honley Library Energy Saving Opportunities Summary – Air infiltration

Opportunity	Gas Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Conduct Air Pressure Test on the building and draught proof	4,446	0.8	£156	£2,000	12.8
<b>TOTAL</b>	<b>4,446</b>	<b>0.8</b>	<b>£156</b>	<b>£2,000</b>	<b>12.8</b>

### 6.2.7 Entire Building Envelope – Deep Retrofit

As an alternative to opportunities 6.2.1 to 6.2.6, consideration could also be given to undertaking a deep retrofit of the entire building. This is a whole building analysis and construction process which will take into consideration often high up-front cost opportunities such as windows and HVAC plant that have much longer pay-backs. Savings of up to 50% on energy and carbon emissions can be achieved from undertaking this opportunity.

Table 29. Honley Library Energy Saving Opportunities Summary – Deep Retrofit

Opportunity	Energy Savings (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Avoided Costs (£)	Implementation Costs (£)	Payback (yrs)
Deep Retrofit	20,511	3.8	£1,092	£50,000	45.8
<b>TOTAL</b>	<b>20,511</b>	<b>3.8</b>	<b>£1,092</b>	<b>£50,000</b>	<b>45.8</b>

### 6.2.8 Renewable Generation and Other Opportunities

Multiple renewable generation opportunities were assessed against community impact, ease of installation and applicability. They were then categorized into Green (feasible), Amber (further investigation required) and Red (not feasible). The following sections provide a summary of the generation potential and carbons savings from green and amber opportunities as well as an explanation of why some opportunities were not feasible (red).

#### 6.2.8.1 Feasible Renewable Generation Opportunities (Green)

Table 30. Honley Library Energy Generation Opportunities Summary – Feasible

Opportunity	Energy Generation & Usage (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Savings (£)	Capital Costs (£)	Payback (yrs)
Solar Photovoltaic Electricity Generation - Without Battery Storage (50% usage and 50% sold back to the grid)	50% use = 642.5 50% Grid= 642.5  <i>Total 1,285</i>	0.14	£133	£2,650	19.7
Solar Photovoltaic Electricity & Thermal Generation Without Battery Storage (50% usage and 50% sold back to the grid)	Elec = 50% use = 642.5 50% Grid= 642.5  Heat= 6,526	1.3	£361	£3,400	9.4

#### 6.2.8.2 Further Investigation Required Renewable Generation Opportunities (Amber)

Table 31. Honley Library Energy Generation Opportunities Summary – Further Investigation Required

Opportunity	Energy Generation & Usage (kWh)	Emissions Savings (tCO <sub>2</sub> e)	Savings (£)	Capital Costs (£)	Payback (yrs)
Wind – VAWT (Vertical Axis) Without Battery Storage (50% usage and 50% sold back to the grid)	10% use = 1,789 90% Grid= 16,103  <i>Total 17,892</i>	0.4	£871	£50,000	57.4
Heat Pump – Air Source	27,462	4.6	-£148	£8,500	N/A
Heat Pump – Ground Source Vertical (Borehole)	27,462	4.6	-£148	£32,500	N/A
High Efficiency Storage Heaters	27,462	0.5	-£3,522	£6,000	N/A
Underfloor Heating	25,746	1.6	£301	£5,000	16.6
Solar Thermal Generation	6,526	1.2	£229	£2,266	9.9

#### 6.2.8.3 Not Feasible Renewable Generation Opportunities (Red)

Table 32. Honley Library Energy Generation Opportunities Summary – Non-Feasible

Type	Opportunity	Rationale
Electricity	Solar Photovoltaic Electricity Generation -With Battery Storage	1. Due to potential size of system plus current site usage, the incorporation of battery storage is not practicable at this time.

	Hydro	<ol style="list-style-type: none"> <li>1. Planning permission and complex surveys and impact studies will be required</li> <li>2. Insufficient water head to generate enough energy to be worthwhile.</li> </ol>
	Tidal/Wave	<ol style="list-style-type: none"> <li>1. No local access to tidal waters nearby.</li> </ol>
	Anaerobic Digestion	<ol style="list-style-type: none"> <li>1. Limited space for equipment</li> <li>2. Lack of guaranteed fuel source</li> <li>3. Potential to release offensive odours</li> </ol>
Thermal	Heat Pump – Ground Source	<ol style="list-style-type: none"> <li>1. Available ground area is insufficient for a horizontal system.</li> <li>2. The borehole type system is very disruptive, geological assessments and surveys will need to be carried out.</li> </ol>
	Heat Pump – Water Source	<ol style="list-style-type: none"> <li>1. No suitable water source located nearby.</li> </ol>
	Geothermal – High Grade Heat	<ol style="list-style-type: none"> <li>1. No significant source of heat below the site reported.</li> </ol>
	Biomass	<ol style="list-style-type: none"> <li>1. Insufficient space for equipment</li> </ol>
Hybrid	Combined Heat and Power (CHP)	<ol style="list-style-type: none"> <li>1. Insufficient space for equipment</li> </ol>
Energy Storage	Flywheel	<ol style="list-style-type: none"> <li>1. Not suitable for current site usage as it is a short-term energy storage solution.</li> </ol>
	Gravitational	<ol style="list-style-type: none"> <li>1. No suitable sites nearby e.g., mine shafts</li> </ol>
	Pumped Hydro	<ol style="list-style-type: none"> <li>1. No suitable sites nearby e.g., mine shafts</li> </ol>

#### 6.2.8.4 Other Low Carbon Solutions - Hydrogen

There are a number of studies and projects in the UK testing out whether replacing natural gas with hydrogen is safe, how much it would cost, and how disruptive the process would be. We recommend that when the results of these studies are officially released then the viability of using hydrogen as an alternative fuel source is considered. Early results show that upgrading equipment to safely operate with hydrogen gas will likely have a significant cost with paybacks greater than 10 years.



## 7.0 Energy Saving Opportunities Summary

### 7.1 Holmfirth Civic Centre

Energy saving and generation opportunities identified for the site are shown in more detail in Appendix A & B. Below are two tables summarising the cumulative energy saving and generation opportunities.

#### Identified Energy Saving Opportunities:

Table 33. Holmfirth Civic Centre Energy Opportunities Summary

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Carry out a deep retrofit of the building	£6,663	16.9	37.5
Upgrade existing lighting to modern LED type with PIR/motion and daylight controls	£2,037	2.1	1.9
Replace existing DHWS with point of use electric system	£726	2.9	2.8
Upgrade existing roof insulation (15% saving in heating) <sub>2</sub>	£690	2.5	4.3
Carry out Air Pressure Test on the building, draught proof and replace fire doors	£460	1.6	10.9
Implement a behaviour change programme	£382	1.0	6.3
Upgrade existing heating controls to provide remote access	£345	1.2	1.4
Install a timer on Zip hot water boiler	£263	0.3	0.2
Install secondary glazing on appropriate windows within Grade II listed part of the site.	£115	0.4	21.7

#### Notes:

1. The potential cumulative impact of implementing multiple energy saving opportunities (diversity) has not been considered.
2. Roof insulation savings potential of 15% has been shown. This needs to be confirmed by inspection by an appropriate specialist.

#### Identified Energy Generation Opportunities:

Table 34. Holmfirth Civic Centre Energy Generation Summary

Opportunity	Annual Saving & incentives (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Solar Photovoltaic Electricity and Thermal Generation with Battery Storage <sub>1</sub>	£5,407	8.2	15.6

#### Notes:

1. Solar electricity and thermal generation with battery storage saving has been presented in the summary table.

## 7.2 Honley Library

Energy saving and generation opportunities identified for the site are shown in more details in Appendix C and D. Below are two tables summarising the cumulative energy saving and generation opportunities.

### Identified Energy Saving Opportunities:

Table 35. Honley Library Energy Opportunities Summary

Opportunity	Annual Saving (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Carry out a deep retrofit of the building	£1,092	3.8	45.8
Upgrade existing lighting to modern LED type with PIR/motion and daylight controls	£220	0.3	4.5
Upgrade heating controls to provide remote access	£187	1.0	1.9
Install roof insulation (if appropriate)	£187	1.0	13.4
Carry out Air Pressure Test on the building, draught proof and replace fire doors	£156	0.8	12.8
Install double glazed windows	£125	0.7	72.3
Implement a behaviour change programme	£38	0.1	6.7

#### Notes:

- The potential cumulative impact of implementing multiple energy saving opportunities (diversity) has not been considered.

### Identified Energy Generation Opportunities:

Table 36. Honley Library Energy Generation Summary

Opportunity	Annual Saving & Incentives (£)	Carbon Saving (tCO <sub>2</sub> e)	Payback (Years)
Solar Photovoltaic Electricity and Thermal Generation without Battery Storage <sub>1</sub>	£361	1.3	9.4

#### Notes:

- Solar electricity and thermal generation without battery storage saving has been presented in the summary table.

## 8.0 Renewable (Green) Energy Contracts

Organisations can source renewable energy contracts from certain energy suppliers. Companies pay a premium to confirm that the energy sourced has been generated through renewable means. Energy suppliers prove that the energy purchased by the organisation meets the renewable energy criteria by obtaining certificates through the following schemes:

1. Renewable Energy Guarantees of Origin (REGO's) – Renewable electricity generation
2. Green Gas Certificates (GGC's) – Biomethane generation and insertion into the Gas Network

The amount and type of renewable energy sourced will affect the amount of associated carbon emissions produced. The renewable energy mix information is held by the chosen energy supplier with who the renewable energy contract was secured. In addition, only a certain number of supplies could potentially be deemed suitable for these types of renewable energy contracts. This is heavily dependent on the energy purchasing strategy implemented by HVCAP.

Certain energy providers offer energy contracts deemed low carbon however, the majority of these are generated using nuclear power. This type of energy contract is often referred to as "Blue".

Renewable (Green) Energy Contracts could become part of an organisation's pathway to carbon zero and further review is recommended.

## 9.0 Generation of Capital

### 9.1 Value Added Tax (VAT)

VAT is currently set at 20%, however for registered charities this is reduced to 5% on fuel and power if it is used for non-business activities. The 15% saving could be used to support energy saving and generation technologies.

### 9.2 Grants

We are aware of some specific sources of funding currently available which could be used to support the HVCAP net zero strategy. These are subject to strict eligibility criteria, and it is recommended that further investigation is carried out for appropriateness.

### 9.3 Internal of Price of Carbon

Many organisations, in support of their Climate Change impact reduction strategies, use an internal price of carbon in their emissions calculations. This theoretical cost per tonne aims to incorporate the impacts of Climate Change in all relevant future purchasing by giving key stakeholders a financial understanding of how the organisation is responding to specific Climate Change issues. Example companies to implement this include Microsoft, Unilever, ASDA and Disney.

If used, this internal price of carbon could generate funds to support energy saving and generation technologies.

## 10.0 Carbon Offsetting

Carbon offsetting is a process where organisations invest in carbon reducing projects (not on-site) as a way of compensation for the amount of carbon emissions they have produced. These schemes vary throughout the world and can be verified through third-party certifications such as The Gold Standard. Carbon Offsetting may also vary depending on the chosen scheme.

Carbon offsetting could become part of an organisation's pathway to carbon zero and further review is recommended.

## 11.0 Overall Conclusions and Recommendations

### 11.1 Holmfirth Civic Centre

1. The most significant energy source at the Holmfirth Civic Centre is natural gas which accounts for 85.9% (155,285 kWh) of consumption, 84.0% (28.4 tCO<sub>2</sub>e) of carbon emissions and 60.1% (£8,011.3) of energy costs. Electricity accounts for 14.1% (25,559 kWh) of consumption, 16.0% (5.4 tCO<sub>2</sub>e) of carbon emissions and 39.9% (£5,315.1) of energy costs.
2. The information obtained from the physical energy and carbon audit was used to calculate an energy profile for the site. It showed the most significant energy consumers being:
  - i. Heating accounting for circa 49.3% (89,189 kWh) of the site's energy consumption, 48.2% (16.3 tCO<sub>2</sub>e) of the site's carbon emissions and 34.5% (£4,601) of the site's energy costs.
  - ii. DHWS which accounted for circa 36.5% (66,096 kWh) of the site's energy consumption, 35.7% (12.1 tCO<sub>2</sub>e) of the site's carbon emissions and 25.6% (£3,410) of the site's energy costs.
  - iii. Lighting accounts for 7.6% (13,725 kWh) of the site's consumption, 8.6% (2.9 tCO<sub>2</sub>e) of the site's carbon emissions and 21.4% (£2,854) of the site's energy costs.
  - iv. Heating Pumps and Plant (Elec) account for 3.6% (6,469 kWh) of site's energy consumption, 4.1% (1.4 tCO<sub>2</sub>e) of the site's carbon emissions and 10.1% of the site's energy costs.
  - v. The remaining 3.0% (5,365 kWh) of the site's energy consumption, 3.4% (1.2 tCO<sub>2</sub>e) of the sites carbon emissions and 8.4% (£1,116) of the site energy costs are attributable to Tea Boilers, Lift, Small Power and Other.
3. The degree day analysis showed a good relationship between outside air temperature and natural gas consumption. However, a significant proportion of the natural gas invoices provided were based on estimate readings. It is recommended that meter readings are regularly taken and provided to the current energy supplier to ensure accurate natural gas measurements are captured and recorded. This will be needed to show the impact of implemented energy saving solutions.
4. The identified energy and carbon saving opportunities of upgrading appropriate lighting to LED type, upgrading roof insulation, replacing existing DHWS with an electric point of use system, installing roof insulation, draught proofing, replacing fire doors, installing timers on zip boilers and carrying out a behaviour change programme could generate savings of circa 63,980 kWh, £5,018 and 11.9 tCO<sub>2</sub>e with a payback of 3.9 years. We would recommend engaging appropriate specialists to confirm savings and costs.
5. Deep retrofit was also considered as an alternative to the other energy solutions. Savings of up 90,422 kWh, £6,663 and 16.9 tCO<sub>2</sub>e could be achieved with a payback of 37.5 years.
6. A good number of energy generation and saving technologies were reviewed and considered as part of this energy and carbon audit - see Appendix B for further details. A feasibility assessment was carried out and showed solar photovoltaic energy generation as a viable option. Assessment of the available roof space shows that a combined solar photovoltaic electricity and thermal solution with battery storage would generate savings of £5,407, 20,892 kWh of electricity and 20,593 kWh of heat, 8.2 tCO<sub>2</sub>e in carbon emissions with a payback of 15.6 years. We recommend that a solar photovoltaic specialist is engaged to confirm saving potential.

## 11.2 Honley Library

1. The most significant energy source at the Honley Library is natural gas which accounts for 86.7% (35,572 kWh) of consumption, 84.9% (6.5 tCO<sub>2</sub>e) of carbon emissions and 57.1% (£1,245.6) of energy costs. Electricity accounts for 13.3% (5,450 kWh) of consumption, 15.1% (1.2 tCO<sub>2</sub>e) of carbon emissions and 42.9% (£937.5) of energy costs.
2. The information obtained from the physical energy and carbon audit was used to calculate an energy profile for the site. It showed that most significant energy consumers being:
  - i. Heating and DHWS accounts for circa 86.7% (35,572 kWh) of the site's energy consumption, 84.9% (6.5 tCO<sub>2</sub>e) of the site's carbon emissions and 57.1% (£1,246) of the site's energy costs.
  - ii. Small Power accounts for circa 5.1% (2,075 kWh) of the site's energy consumption, 5.7% (0.4 tCO<sub>2</sub>e) of the site's carbon emissions and 16.4% (£357) of the site's energy costs.
  - iii. Lighting accounts for 3.9% (1,587 kWh) of the site's consumption, 4.4% (0.3 tCO<sub>2</sub>e) of the site's carbon emissions and 12.5% (£273) of the site's energy costs.
  - iv. The remaining 4.3% (1,788 kWh) of the site's energy consumption, 5.0% (0.4 tCO<sub>2</sub>e) of the sites carbon emissions and 14.0% (£307) of the site energy costs are attributable to heating pumps and plant, kettles, other white goods, and other.
3. The degree day analysis did not show an evident relationship between outside air temperature and natural gas consumption. This could be due to the sites reported issues with controlling temperature. Recommend a further review of the heating controls is carried out to determine their appropriateness for the current site use.
4. The identified energy and carbon saving opportunities of upgrading appropriate lighting to LED type, upgrading heating controls to provide remote access, installing roof insulation, draught proofing, installing secondary glazing and implementing a behaviour change programme have a total annual undiversified savings of circa £912, 20,661kWh 3.8 tCO<sub>2</sub>e with a payback of 16.6 years. We would recommend engaging appropriate specialists to confirm savings and costs.
5. Deep retrofit was also considered as an alternative to the other energy solutions. Savings of up 20,511 kWh, £1,484 and 3.8 tCO<sub>2</sub>e could be achieved with a payback of 33.7 years.
6. A good number of energy generation and saving technologies were reviewed and considered as part of this energy and carbon audit See Appendix D for further details. A feasibility assessment was carried out and showed solar photovoltaic energy generation as a viable option. Assessment of the available roof space shows that a combined solar photovoltaic electricity and thermal solution without battery storage would generate savings of £361, 642 kWh of electricity and 6,526 kWh of heat, 1.3 tCO<sub>2</sub>e in carbon emissions with a payback of 9.4 years. We recommend that a solar photovoltaic specialist is engaged to confirm saving potential.

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## Appendix A – Holmfirth Civic Centre Energy and Carbon Saving Opportunity Schedule

### Notes:

1. The potential cumulative impact of implementing multiple energy saving opportunity (diversity) has not been considered.

Ref.	Resource	Opportunity	Energy Savings (kWh/yr)	Carbon Savings (tCO <sub>2</sub> e)	Cost Savings (£/yr)	Implementation Cost (£)	Payback (yrs)
Op 1	All	Carry out a deep retrofit of the Holmfirth Civic Centre. Savings of up to 50% in energy consumption and carbon emissions could potentially be realised	90,422	16.9	£6,663	£250,000	37.5
Op 2	Lighting	Consider upgrading appropriate lighting with LED type.	8,760	1.9	£1,822	£3,315	1.8
Op 3	Heating	Due to access restrictions, the roof insulation could not be inspected. If this insulation is limited and can be improved, then between 10% to 15% saving in heating natural gas consumption could be realised. Recommend a specialist is engaged and inspection of the roof insulation is undertaken to accurately determine the saving potential.	8,919 to 13,378	1.6 to 2.5	£460 to £690	£3,000	4.3 to 6.5
Op 4	DHWS	Review Direct Gas Fired DHWS with a view to replace point of use with electric alternative. This will reduce the energy losses from continually cycling hot water. This solution is based on discussed usage, where hot water was needed for amenity provision at certain times during the day. Cost savings factor in the increased energy consumption from electric DHWS point of use.	16,524	2.9	£726	£2,000	2.8

Op 5	Heating	Carry out an air pressure testing on the Holmfirth Civic Centre to determine the extent to which air is lost through leaks in the building fabric. Dependent on the results, carry out draught proofing and replacement of fire doors to reduce air leaks. If significant losses are being experienced, then up to 10% in gas heating savings could potentially be realised.	8,919	1.6	£460	£5,000	10.9
Op 6	Greener Working	Renew the Greener Working Campaign to reduce waste energy consumption and encourage environmentally friendly behaviour from staff and clients.	5,184	1.0	£382	£2,400	6.3
Op 7	Heating	Review existing heating controls with a view to provide remote access in order to review and adjust settings according to demand. Savings are based on potential savings from heating being accidentally left on when not needed.	6,689	1.2	£345	£500	1.4
Op 8	Zip Boilers	Install timers on all hot water zip boilers.	1,264	0.3	£263	£50	0.2
Op 9	Lighting	Consider installing motion and daylight sensors on Recommended LED light fittings. These calculations assume a reduction of 1 hour per day in office and meeting room lighting consumption is achievable.	1,032	0.2	£215	£645	3.0
Op 10	Heating	In the Grade II listed part of the building, consider continuing the window upgrade programme by installing secondary glazing on circa 5nr remaining windows. A conservative 2.5% reduction in existing heating consumption has been estimated.	2,230	0.4	£115	£2,500	21.7



## Appendix B – Holmfirth Civic Centre Renewable and Other Opportunities Schedule

Summary of Feasibility Assessment					1=Poor, 3=Neutral, 5=Excellent			Green - Feasible Amber – Feasible Red – Not Feasible
Type	Category	Advantages	Disadvantages	Cost (£)	Community Impact	Ease of Installation	Applicability	
Electricity	Solar Photovoltaic	<ol style="list-style-type: none"> <li>1. Payback time within 10 to 15 years is a realistic prospect.</li> <li>2. Solar panels are a developed and proven technology.</li> <li>3. Energy generation is predictable to a certain degree.</li> </ol>	<ol style="list-style-type: none"> <li>1. Restrictions on solar panel installation due to parts of the building being listed - can't be visible from roadside.</li> <li>2. UK climate is not entirely suited to significant solar generation.</li> <li>3. Intermittent generation - no energy generated at night and very little in the winter months. Alternative energy source is still required, and storage would be very beneficial.</li> <li>4. Feasibility regarding size, positioning and costs needs to be verified due to size of system.</li> </ol>	High	3	4	5	
	Wind – HAWT (Horizontal Axis)	<ol style="list-style-type: none"> <li>1. Outward demonstration of council's commitment to being green.</li> <li>2. Developed and proven technology.</li> <li>3. Energy generation is predictable to a certain degree.</li> </ol>	<ol style="list-style-type: none"> <li>1. Unlikely to be feasible due to site space constraints.</li> <li>2. Planning permission, complex surveys and impact studies will be required.</li> <li>3. Intermittent generation. Alternative energy source is still required, and storage would be very beneficial.</li> </ol>	Medium to High	2	2	3	

	Wind – VAWT (Vertical Axis)	<p>1. More efficient in lower wind speeds and in turbulent air (roadside), i.e. better suited for town centres.</p> <p>2. Can be viewed as a futuristic/artistic installation.</p> <p>3. More flexibility in mounting. Various models of VAWT can be mounted on roofs, poles, walls or the ground.</p>	<p>1. More expensive than a HAWT</p> <p>2. Unlikely to be feasible due to site space constraints.</p> <p>3. Planning permission and complex surveys and impact studies will be required.</p> <p>4. Still a developing technology, may be out of date in a short period.</p>	High	3	3	4	
	Hydro		<p>1. Planning permission and complex surveys and impact studies will be required.</p> <p>2. Insufficient water head to generate enough energy to be worthwhile.</p>	-	-	-	-	
	Tidal/Wave		<p>1. No appropriate water source nearby.</p>	-	-	-	-	
	Anaerobic Digestion	<p>1. Potential for fuel source from local farms.</p>	<p>1. Limited space for the equipment.</p> <p>2. Lack of guaranteed fuel source.</p> <p>3. Potential to release offensive odours.</p>	-	-	-	-	

<b>Heating</b>	Heat Pump – Air Source	<ol style="list-style-type: none"> <li>1. Can provide heating and DHWS.</li> <li>2. Reduces or removes the site’s reliance on gas.</li> </ol>	<ol style="list-style-type: none"> <li>1. More expensive than current gas system to operate.</li> <li>2. Renewable Heat Incentive (RHI) payments have ended.</li> <li>3. 35-40kW heat output required for winter months, resulting in it being oversized for the majority of the year.</li> </ol>	Medium	3	4	5	
	Heat Pump – Ground Source Horizontal		<ol style="list-style-type: none"> <li>1. Available ground area is insufficient.</li> </ol>	-	-	-	-	
	Heat Pump – Ground Source Vertical	<ol style="list-style-type: none"> <li>1. Vertical (borehole) ground source heat pumps provide an alternative where horizontal space is limited.</li> <li>2. The visual impact on the surface is minimal.</li> <li>3. Less dependent on the external climate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Excavating a borehole can add significant capex costs to the project. The greater the heating requirement, the longer and deeper the borehole will need to be.</li> <li>2. Ground surveys will be required to ensure the geology below is suitable for borehole(s).</li> <li>3. Likely to be more expensive than current gas system to operate.</li> <li>4. Renewable Heat Incentive (RHI) payments have ended for non-domestic installations.</li> </ol>	Medium to High	2	2	2	
	Heat Pump – Water Source		<ol style="list-style-type: none"> <li>1. Circa 100m and several buildings and car parks between the civic centre and Holme river. Significant disruption would be caused.</li> </ol>	-	-	-	-	

	High Efficiency Storage Heaters	<p>1. These highly efficient electric storage heaters will reduce or remove the site's reliance on gas.</p> <p>2. Would allow the site to take advantage of off-peak electricity prices.</p>	1. At current energy rates, the storage heaters would be more expensive than the current gas system to operate.	Low	3	5	4	
	Underfloor Heating	1. More efficient method of heating than gas central heating.	1. Would require significant work to install - floors would have to be pulled up.	Low-Medium	3	2	4	
	Geothermal		<p>1. No significant source of heat below site.</p> <p>2. Not a cost-effective way to heat this building.</p>	-	-	-	-	

	Solar - Thermal	<p>1. Payback time within 10 to 15 years is a realistic prospect.</p> <p>2. Circa 243m2 of useable roof area facing a South-East direction.</p> <p>3. Solar panels are a developed and proven technology.</p> <p>4. Energy generation is predictable to a certain degree."</p> <p>5. Increase carbon reduction compared to Solar PV.</p> <p>6. The most appropriately sized system will only take up one roof and provide the centre with 33% of their hot water requirements.</p>	<p>1. Restrictions on solar panel installation due to parts of the building being listed - can't be visible from roadside.</p> <p>2. UK climate is not entirely suited to significant solar generation.</p> <p>3. Most heat generated in the summer whereas it will be needed mostly in the winter.</p>	Low	3	4	5	
	Biomass		1. Insufficient space for the equipment.	-	-	-	-	

<b>Hybrid (Electricity and Heating)</b>	CHP		1. Insufficient space for the equipment.	-	-	-	-	
	Solar Photovoltaic Electricity and Thermal	<p>1. Allows the generation of electricity and heat from a single source.</p> <p>2. Despite increased capital costs, potential to reduce payback period versus just PV or thermal.</p> <p>3. Battery storage allows for maximum use of the generated energy. Based on current incentives and tariff rates, this is the most competitive option.</p>	<p>1. Developing combined technology.</p> <p>2. The two processes may impact each other's efficiency, reducing potential output.</p> <p>3. Higher capital costs and more difficult installation.</p>	High	3	3	5	
<b>Energy Storage</b>	Flywheel		1. Not suitable for current site use.	-	-	-	-	
	Gravitational		1. No suitable sites.	-	-	-	-	
	Pumped Hydro		1. No suitable sites.	-	-	-	-	

Energy Saving and Incentive Summary of Green (feasible) and Amber (further investigation required)

Type	Category	Potential Output use by site (kWh)	Carbon Saving (tCO <sub>2</sub> e)	Capital Costs (£)	Annual Savings and Incentives (£)	Payback (yrs)
<b>Electricity Generation</b>	Solar Photovoltaic – <b>Without</b> Battery Storage	5,223	1.1	£42,480	£1,635	26.0
	Solar Photovoltaic – <b>With</b> Battery Storage	20,892	4.4	£66,480	£4,345	15.3
	Wind – VAWT (Vertical Axis) – <b>Without</b> Battery Storage	8,945	1.9	£50,000	£2,174	23.0
	Wind – VAWT (Vertical Axis) – <b>With</b> Battery Storage	17,892	3.8	£74,000	£3,721	19.9
<b>Heating</b>	Heat Pump – Air Source	115,202	19.4	£27,500	£584	47.1
	Heat Pump – Ground Source Vertical (Borehole)	115,202	19.4	£51,500	£584	88.1
	High Efficiency Storage Heaters	115,202	2.0	£10,000	-£16,528	N/A
	Underfloor Heating	108,002	6.6	£22,500	£1,857	12.1
	Solar Thermal	20,593	3.8	£6,265	£1,062	5.9
<b>Hybrid</b>	Solar Photovoltaic Electricity and Thermal – <b>Without</b> Battery Storage	Elec – 5,223 Heat - 20,593	4.9	£60,400	£2,697	22.4
	Solar Photovoltaic Electricity and Thermal – <b>With</b> Battery Storage	Elec – 20,892 Heat - 20,593	8.2	£84,400	£5,407	15.6

## Appendix C – Honley Library Energy and Carbon Saving Opportunity Schedule

### Notes:

1. The potential cumulative impact of implementing multiple energy saving opportunity (diversity) has not been considered.

Ref.	Resource	Opportunity	Energy Savings (kWh/yr)	Carbon Savings (tCO <sub>2</sub> e)	Cost Savings (£/yr)	Implementation Cost (£)	Payback (yrs)
Op 1	All	Carry out a deep retrofit of the Honley Library. Savings of up to 50% in energy consumption and carbon emissions could potentially be realised	20,511	3.8	£1,092	£50,000	45.8
Op 2	Lighting	Consider upgrading appropriate lighting with LED type with PIR/motion and daylight control.	1,204	0.26	£207	£900	4.3
Op 3	Heating	Upgrade existing heating controls to provide remote access. Not only would this save on gas consumption, but also provide easier access to onsite staff and prevent the need to go into the external boiler room in order to adjust temperature settings. A conservative 10% saving has been used to calculate potential energy cost reduction.	5,336	1.0	£187	£350	1.9
Op 4	Heating	Due to access restrictions, the roof insulation could not be inspected. If this insulation is limited and can be improved, then up to 20% saving in heating natural gas consumption could be realised. Recommend a specialist is engaged and inspection of the roof insulation is undertaken to accurately determine the saving potential.	5,336	1.0	£187	£2,500	13.4



Op 5	Heating	Carry out an air pressure testing on Honley Library to determine the extent to which air is lost through leaks in the building fabric. Dependent on the results, carry out draught proofing. If significant losses are being experienced, then between 5% and 10% in gas heating savings could potentially be realised.	4,446	0.8	£156	£2,000	12.8
Op 6	Heating	Replace single glazed windows with double glaze type.	3,557	0.7	£125	£9,000	72.3
Op 7	Greener Working	Renew the Greener Working Campaign to reduce waste energy consumption and encourage environmentally friendly behaviour from staff and clients.	706	0.13	£38	£250	6.7
Op 8	Lighting	Consider installing PIR and daylight sensors controls. These calculations assume a reduction of 2 hour per day in lighting consumption is achievable and based on installed LEDs	77	0.02	£13	£90	6.8

## Appendix D – Honley Library Renewable and Other Opportunities Schedule

Summary of Feasibility Assessment					1=Poor, 3=Neutral, 5=Excellent			
Type	Category	Advantages	Disadvantages	Cost (£)	Community Impact	Ease of Installation	Applicability	Green -Feasible Amber – Feasible Red – Not Feasible
Electricity Generation	Solar Photovoltaic	<ol style="list-style-type: none"> <li>1. Payback time within 10 to 15 years is a realistic prospect.</li> <li>2. Solar panels are a developed and proven technology.</li> <li>3. Energy generation is predictable to a certain degree.</li> </ol>	<ol style="list-style-type: none"> <li>1. UK climate is not entirely suited to significant solar generation.</li> <li>2. Intermittent generation - no energy generated at night and very little in the winter months. Alternative energy source is still required, and storage would be very beneficial.</li> <li>3. Feasibility regarding size, positioning and costs needs to be verified due to size of system.</li> </ol>	High	3	4	5	Green -Feasible
	Wind – HAWT (Horizontal Axis)	<ol style="list-style-type: none"> <li>1. Outward demonstration of council’s commitment to being green.</li> <li>2. Developed and proven technology.</li> <li>3. Energy generation is predictable to a certain degree.</li> </ol>	<ol style="list-style-type: none"> <li>1. Unlikely to be feasible due to site space constraints.</li> <li>2. Planning permission, complex surveys and impact studies will be required.</li> <li>3. Intermittent generation. Alternative energy source is still required, and storage would be very beneficial.</li> </ol>	Medium to High	2	2	3	Red – Not Feasible
	Wind – VAWT (Vertical Axis)	<ol style="list-style-type: none"> <li>1. More efficient in lower wind speeds and in turbulent air</li> </ol>	<ol style="list-style-type: none"> <li>1. More expensive than a HAWT</li> </ol>	High	3	3	4	Amber – Feasible

		(roadside), i.e. better suited for town centres.  2. Can be viewed as a futuristic/artistic installation.  3. More flexibility in mounting. Various models of VAWT can be mounted on roofs, poles, walls or the ground.	2. Unlikely to be feasible due to site space constraints.  3. Planning permission and complex surveys and impact studies will be required.  4. Still a developing technology, may be out of date in a short period.						
	Hydro		1. Planning permission and complex surveys and impact studies will be required.  2. Insufficient water head to generate enough energy to be worthwhile.	-	-	-	-		
	Tidal/Wave		1. No appropriate water source nearby.	-	-	-	-		
	Anaerobic Digestion	1. Potential for fuel source from local farms.	1. Limited space for the equipment.  2. Lack of guaranteed fuel source.  3. Potential to release offensive odours.	-	-	-	-		

<b>Heating</b>	Heat Pump – Air Source	<ol style="list-style-type: none"> <li>1. Can provide heating and DHWS.</li> <li>2. Reduces or removes the site’s reliance on gas.</li> </ol>	<ol style="list-style-type: none"> <li>1. More expensive than current gas system to operate.</li> <li>2. Renewable Heat Incentive (RHI) payments have ended.</li> </ol>	Medium	3	4	5	
	Heat Pump – Ground Source Horizontal		<ol style="list-style-type: none"> <li>1. Available ground area is insufficient.</li> </ol>	-	-	-	-	
	Heat Pump – Ground Source Vertical (Borehole)	<ol style="list-style-type: none"> <li>1. Vertical (borehole) ground source heat pumps provide an alternative where horizontal space is limited.</li> <li>2. The visual impact on the surface is minimal.</li> <li>3. Less dependent on the external climate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Excavating a borehole can add significant capex costs to the project. The greater the heating requirement, the longer and deeper the borehole will need to be.</li> <li>2. Ground surveys will be required to ensure the geology below is suitable for borehole(s).</li> <li>3. Likely to be more expensive than current gas system to operate.</li> <li>4. Renewable Heat Incentive (RHI) payments have ended for non-domestic installations.</li> </ol>	Medium to High	2	3	3	
	Heat Pump – Water Source		<ol style="list-style-type: none"> <li>1. Circa 400m and multiple buildings between the Library and the Holme river and Mag Brook. Significant disruption would be caused.</li> </ol>	-	-	-	-	

	High Efficiency Storage Heaters	<p>1. These highly efficient electric storage heaters will reduce or remove the site's reliance on gas.</p> <p>2. Would allow the site to take advantage of off-peak electricity prices.</p>	1. At current energy rates, the storage heaters would be more expensive than the current gas system to operate.	Low	3	5	4	
	Underfloor Heating	1. More efficient method of heating than gas central heating.	1. Would require significant work to install - floors would have to be pulled up.	Low-Medium	3	2	4	
	Geothermal		<p>1. No significant source of heat below site.</p> <p>2. Not a cost-effective way to heat this building.</p>	-	-	-	-	

	Solar - Thermal	<p>1. Payback time within 10 to 20 years is a realistic prospect.</p> <p>2. Solar panels are a developed and proven technology.</p> <p>3. Energy generation is predictable to a certain degree."</p> <p>4. Increase carbon reduction compared to Solar PV.</p>	<p>1. UK climate is not entirely suited to significant solar generation.</p> <p>2. Most heat generated in the summer whereas it will be needed mostly in the winter.</p>	Low	3	4	5	
	Biomass		1. Insufficient space for the equipment.	-	-	-	-	

<b>Hybrid (Electricity and Heating)</b>	CHP		1. Insufficient space for the equipment.	-	-	-	-	
	Solar Photovoltaic Electricity and Thermal	<p>1. Allows the generation of electricity and heat from a single source.</p> <p>2. Despite increased capital costs, potential to reduce payback period versus just PV or thermal.</p>	<p>1. Developing combined technology.</p> <p>2. The two processes may impact each others efficiency, reducing potential output.</p> <p>3. Higher capital costs and more difficult installation.</p>	High	3	3	5	
<b>Energy Storage</b>	Flywheel		1. Not suitable for current site use	-	-	-	-	
	Gravitational		1. No suitable sites.	-	-	-	-	
	Pumped Hydro		1. No suitable sites.	-	-	-	-	

Energy Saving and Incentive Summary of Green (feasible) and Amber (further investigation required)

Type	Category	Potential Output use by site (kWh)	Carbon Saving (tCO <sub>2</sub> e)	Capital Costs (£)	Annual Savings and Incentives (£)	Payback (yrs)
Electricity Generation	Solar Photovoltaic – <b>Without</b> Battery Storage	642	0.14	£2,625	£133	19.7
	Solar Photovoltaic – <b>With</b> Battery Storage	1,285	0.27	£6,125	£221	27.7
	Wind – VAWT (Vertical Axis) – <b>Without</b> Battery Storage	1,789	0.4	£50,000	£871	57.4
	Wind – VAWT (Vertical Axis) – <b>With</b> Battery Storage	4,472	0.9	£53,500	£1,239	43.2
Heating	Heat Pump – Air Source	27,462	4.6	£8,500	-£148	N/A
	Heat Pump – Ground Source Vertical (Borehole)	27,462	4.6	£32,500	-£148	N/A
	High Efficiency Storage Heaters	27,462	0.5	£6,000	-£3,522	N/A
	Underfloor Heating	25,746	1.6	£5,000	£301	16.6
	Solar Thermal	6,526	1.2	£2,266	£229	9.9
Hybrid	Solar Photovoltaic Electricity and Thermal – <b>Without</b> Battery Storage	Elec – 642 Heat – 6,526	1.3	£3,400	£361	9.4
	Solar Photovoltaic Electricity and Thermal – <b>With</b> Battery Storage	Elec – 1,285 Heat – 6,526	1.5	£6,900	£450	15.3



## Appendix E – Honley Library Lighting Brief

The below lighting brief was provided from PASCHALi to Malcolm Ellis under the cover of email on 7<sup>th</sup> July 2021 at 15:21:

Please provide tender quotations for the following works at Honley Library:

### **Full Library Lighting Replacement**

- Allow for taking down and removing the existing lighting fittings.
- Supply and install new LED light fittings (number to be confirmed in quote) to provide lighting levels suitable and appropriate for a small public library with multi-use community use, containing bookshelves, study areas, play areas, display areas and ancillary spaces. Lighting levels to be stated in the quotation and must follow the latest recommendations as published in CIBSE Lighting Guide 5: Lighting for Education, in particular sections 5.12.
- Lighting controls to be automatic and be provided for energy saving and comfort purposes. They should include daylight dimming and presence detection.
- Control of main lighting to be by handheld remote controls (three to be supplied) and one main switch easily accessible by library staff only.
- Wiring and trunking installation to be checked and confirmed suitable for the new lighting installation. Tenderer to include for any additional wiring, trunking, materials and certification as needed in accordance with the latest Wiring Regulations (18th Edition) as published by the IET.
- Any external light fittings to be included in the above replacement project.
- Tenderer to outline and confirm design at price submission stage.

### **Provision of Library Boiler Heating Controls**

- Supply and install suitable HIVE or equivalent heating controls to the existing heating system so as to provide seven-day multi on/off scheduling, thermostatic temperature control, boost settings, frost protection and remote access via Wi-Fi and mobile phone App. Final position of thermostat to be agreed.



# Low-Emissions Delivery Service for the Holme Valley

F:

Home deliveries are on the rise. Shoppers are buying more from big companies from outside our area. This means an increased number of delivery vehicles creating pollution and congestion. That's bad for the environment and local businesses.



What if the Holme Valley had a local delivery system that boosted local businesses and services without causing harmful emissions and was ideally suited to our steep roads and narrow lanes? A viable action to help combat climate change and a long term possibility to create green jobs?

EPIKs are liaising with local businesses, organisations and volunteers to create a tailor-made service for low emission deliveries for launch in spring 2022. We are working to secure:



- a distribution hub for sorting and storing equipment
- tailored software to allow orders to be processed
- e-cargo bikes with an 80kg load capacity
- a team of volunteer delivery riders

## You can help to support and shape the project

- ✉ Send us an email to offer your support and ideas
- ✉ Become a volunteer



Home deliveries are forecast to rise by 40% in the next 10 years.

Transport is the second greatest source of carbon production, accounting for 30% emissions



In September 2021, over 100 individuals said that having an e-cargo bike delivery scheme in the Holme Valley was a good idea.

[www.epiks.org.uk/epiks-news-events/](http://www.epiks.org.uk/epiks-news-events/)



EPIKs is a trading name of Environment Kirklees, a not for profit company limited by guarantee registered in England & Wales no. 3367452

## **EPIKS Low Emission Delivery Service for the Holme Valley**

Request for funding from HVPC for capital items that are critical to getting the service going.

**1. An Ecargo bike (Packster 75 or 80) £6,500**

Needed during Q1 (2022) for training and pre-launch promotion and trials (bike was featured in The Guardian on Saturday). To be supplied by Manchester Bike Hire and supported by their mechanics and maintained by EPIKS mechanic in Slaithwaite. This model has proved suitable for use by Cargodale in the Calder Valley.

**2. Accessories to the bike - phone holder, lockable box for valuable deliveries, locks £400 - need to be sourced at same time as bike is ordered**

**Total request to HVPC £6,900**

Update on other funding sought by EPIKS to meet the start-up costs of the new service: We have received £2,500 from the Bright Green Community Trust for early phase activities (business/community engagement, recruitment and training of volunteers, and clothing etc for riders).

We have identified other sources of funding for some of the costs of the early phase of the pilot and will be undertaking a crowd funding exercise with Space Hive in spring 2022.

Kim Warren & Chas Ball  
12.10.2021



5

**Holmfirth Transition Town**

Proposed Cycle Route - Huddersfield (town centre and university) to Holmfirth (town centre). The proposal seeks to create, as far as possible, an off road cycle path between the town centres of Huddersfield and Holmfirth, together with link paths from other significant Holme Valley settlements, notably Honley, Brockholes, Netherthong, New Mill and Woodlale. In addition to these settlements there are a number of other significant workplaces and school destinations linked to or on the proposed route, notably Thongsbridge, Armitage Bridge, Lockwood, Folly Hall, Kirklees College, and Honley and Holmfirth High Schools. Where an off road path is not considered to be achievable, the proposed route utilises the road network, with appropriate amendments and improvements to create a safe cycling environment.

The existing and proposed routes are described below in clearly identifiable sections. Existing routes include some off road paths which are usable and used currently for cycling, and which will become part of the complete route, subject to any necessary improvements. Where off road paths connect to the road network, and for on road elements of the route, improvements to create a safe cycling environment are proposed.

**The route sections:**

1. Huddersfield town centre - within the ring road
2. Ring Road to Lockwood
3. Lockwood to Berry Brow
4. Berry Brow to Honley
5. Honley to Thongsbridge
6. Thongsbridge to Holmfirth

**1. Huddersfield town centre - within the ring road**

The town centre is generally regarded as a relatively safe cycling environment. Traffic levels have been reduced by the introduction of bus gates, and speeds are relatively low. Some cycling infrastructure has been provided and there are some signed routes and safe ring road crossings, however provision is piecemeal and further improvements are required.

Additional town centre cycling infrastructure is proposed as part of the West Yorkshire Combined Authority (WYCA)'s City Connect programme. However the Huddersfield town centre projects, mostly ring road crossings, are on a reserve list and may not be allocated funding. From the railway station/St Georges Square the recommended route to the Holme Valley is via John William Street/Bryam Street/Kirkgate/Cross Church Street/Queen Street to the Queensgate ring road, then via a short length of shared footway to a toucan crossing of Queensgate opposite the University. This is signed inbound but cannot currently be used outbound because Cross Church Street is one way northbound. Changes to the road network associated with the proposed extension of the Kingsgate Centre will enable 2 way cycling on Cross Church Street. Future development of sites such as the former sports centre and Kirklees College should generate developer funding for additional cycling infrastructure.

**2. Ring Road to Lockwood**

There are four existing routes:

2.1 The recommended route to the Holme Valley and Holmfirth utilises the Queensgate toucan crossing, shared footway on Queensgate/Queen Street South, and onroad to a short length of shared footway on the opposite side, adjacent to the one way section. Queen Street South is preferred to Chapel Hill because it has less traffic and a more gentle gradient throughout. The route then crosses Colne Road on the pedestrian crossing, the river footbridge, and Queens Mill Road at its junction with Damside, then utilises a shared footway to the Lockwood Riverside Way. This is a wide tarmac path through woodland, adjacent to the river, joining Lockwood Scar at its endpoint.

- 2.2 Chapel Hill/Lockwood Road to Lockwood Bar.
- 2.3 Chapel Hill/Albert Street to Lockwood Bar
- 2.4 Chapel Hill/Victoria Road to Swan Lane.

**3. Lockwood to Berry Brow (Waingate/Stockwell Hill crossroads)**

There are two existing routes:

- 3.1 A616 Woodhead Road. For much of its length, between Taylor Hill road and Station Road it passes through woodland, having no junctions or on-street parking. The speed limit 30mph, and there are advisory cycle lanes on both sides in part where road width allows. On the southbound side there is a high retaining wall for much of this section, allowing no escape in an emergency. On the northbound side there is a footway, little used by pedestrians.
- 3.2 B6108 Meltham Road to Park Mill Business Park, then path/track to Dean Brook Road, Armitage Road through Armitage Bridge, then Carriage Drive/Stockwell Hill to A616 Woodhead Road/Parkgate.

Right turns are a particular difficulty on this route. For the Holmfirth direction Lockwood Scar into Bridge Street and Carriage Drive into Woodhead Road/Parkgate. For the Huddersfield direction, right turns from the Business Park access road into Meltham Road and from Meltham Road into Bridge Street at the Lockwood Scar traffic signals.

The path/track from Meltham Road initially shares the access to the Business Park, then follows its boundary to its southern end and the bridge site referred to above. Then it diverges from the river, following the boundary of Armitage Bridge Cricket Club to Dean Brook Road. This path/track is usable and used by walkers and MTB cyclists. Part of it adjacent to the Business park has been improved by the developer. It is a public footpath from Meltham Road for only part of its length and is the subject of a requested definitive Map Modification order (DMMO) for bridleway status. A Right of Way Creation Order will be required for the remainder.

New river bridge Option 1

Path improvement

Cyclists only right turn into Albert St

Cycle friendly crossing

Junction improvements

Junction Improvement; right turn facility for cyclists

Lockwood Riverside Way

Short build out over river

New river bridge Option 2

Junction improvements

Existing bridge

End of cycle lane in bound

Option; Future link thru' fields / riverside to Maadale

Option; Future link to Magdale

North and south mandatory cycle lanes

Junction Improvement; right turn facility for cyclists in bound

Field / riverside route to Berry Brow

Widen narrow footbridge

New link path

Replace gate with cycle friendly structure

Junction improvements

New path within playing field

Widen footway for shared use

Widen footway for shared use

Potential to upgrade footpath as part of residential development

End of south bound discretionary cycle lane

Improve path

Short build out over river

Widen existing footbridge

New paths within school site

South bound discretionary cycle lane

Start of south bound verge

Form safe crossing

North bound cycle lane on uphill section

Junction improvements

New river bridge Option 1

Widen narrow bridge

Path improvement

Path improvement

Improve track

New path within southbound verge

Path improvement

Path improvement

Widen woodland path

New Path

Junction improvements

Junction improvements

New safe crossing point

Junction improvements

Junction improvements

Junction improvements

Junction improvements

Junction improvements

Junction improvements

Junction improvements

Junction improvements

**4. Berry Brow to Honley Bridge (New Mill Road/Woodhead Road/Station Road)**

There are two existing routes:

4.1 The A616 Woodhead Road/Huddersfield Road. For much of its length, from Robin Hood Hill to Magdale it passes through woodland and has no junctions. There are mandatory cycle lanes on each side. In the Holmfirth direction there is a high retaining wall to the adjacent woodland, therefore no escape off road in the event of an emergency. In the Huddersfield direction the cycle path ends abruptly at a point just before a bend where the road narrows at a traffic island. At this point cyclists are particularly at risk from passing vehicles. Kirklees Council have proposed terminating the cycle lane earlier, together with advisory signing, but the measures are not regarded as improving cyclist safety, and the Council has been asked to reconsider. The speed limit is mostly 40mph, and 30mph through Berry Brow and from Magdale to Honley.

4.2 As above to Magdale, then Magdale and Honley Riverside path to Northgate and Woodhead Road. The riverside path has a gravel surface and can be used by road bikes.

**5.0 Northgate/Honley Bridge to Thong lane/Miry Lane, Thongsbridge**

There are three existing routes:

5.1 minor road route - Northgate/Old Turnpike/Far End Lane/Far Banks/Upper Hagg Road/Calf Hill Road/Woodhead Road. This is an unclassified road, part of the former main road before the present Woodhead Road was built. It carries relatively little traffic, elevated above the main road and is hilly. It is subject to a 30mph speed limit from Honley to Far Banks, then is unrestricted.

5.2 Main road route - A6024 Woodhead Road. This passes through woodland for much of its length. It has few junctions and onstreet parking only at each end within the settlements. It is mostly subject to a 40mph speed limit. There are advisory cycle lanes on the uphill sections in both directions for part of its length.

5.3 A616 New Mill Road to Brockholes, Holmebank Mews or Lancaster Lane, Lancaster Lane past the Holme Valley Camping and Caravan Park to Woodhead Road. New Mill Road is substantially built up with residential and commercial development. It is subject to on-street parking and a 30mph speed limit throughout. It has no cycling infrastructure.

**6.0 Thongsbridge to Holmfirth**

There are three existing routes:

6.1 A6024 Huddersfield Road. This section has no cycling infrastructure. It is built up throughout, with several junctions and individual accesses and has on-street parking. The speed limit is 30mph throughout.

6.2 A6024 Huddersfield Road to Sands Recreation Ground, then access road to car park, river bridge, Holme Valley Riverside Way to Bridge Lane, passing Holmfirth Cricket Club and Holmfirth Foundry.

6.3 Miry Lane, Berry Bank Lane, Station Road. Berry Bank Lane is an ancient highway and bridleway. It is not suitable for road bikes.

**Proposals for New and Improved Routes**

Proposed improvements to existing routes:

**Queen Street South/Queens Mill Road/Riverside path** - whilst there is some cycling infrastructure, it is not of a sufficient standard for the long term and further improvements are required. Queen Street South is wide and could accommodate segregated paths on each side. On the outbound side this could be facilitated by further university development, which has planning consent, on the former Broadbents site. Improvements are required at the bottom of Queen Street south and to the pedestrian crossing of Colne Road. The river footbridge is narrow and ideally a new, wider bridge is required. An improved crossing of Queens Mill Road is required. The part of the Lockwood Riverside Path which adjoins the former waste disposal site requires improvement to the same standard as the rest of the path.

**Woodhead Road**  
Formation of a safe, protected right turn for cyclists from Woodhead Road into Lockwood Scar. Possible shared use of footway towards Huddersfield. In the Holmfirth direction, a cycle friendly right turn from Woodhead Road into Magdale. Minor improvements to the riverside path.

**Lockwood Bar - Lockwood Scar**  
Cycle friendly improvements to Lockwood Bar crossroads Right turn from Lockwood Scar into Bridge Street/Meltham Road to Armitage Bridge path to be widened and improved to Armitage Bridge. 20 mph speed limit through Armitage Bridge.

**Northgate, Honley** - extension of the 20mph speed limit to Woodhead Road. Proposed new routes, paths and bridges from Lockwood Scar, turn right onto Bridge St then left Brewery Drive (Lockwood Park access road). Continue along the existing track past the stadium, under the viaduct and across the existing river bridge onto fields. From here construct a new path on the edge of the fields, either along the riverside or the woodland edge. Construction of a bridge over the river to link to the existing path/track from Meltham Road to Armitage Bridge. The most straightforward bridge site is just to the south of Park Valley Business Park; however this will require a small area of land from the riding stables.

**Meltham Road to Armitage Bridge path**, widened and improved, then Armitage Road, Stockwell Vale, existing river bridge on footpath at rear of Bishops Court flats to Woodhead Road, new path across fields to Magdale, including a new river bridge. 20mph speed limit through Armitage Bridge.

**Route 4.1** - As described above, measures to improve cycle safety at the end of the north bound cycle lane should be reconsidered. One possible solution for Huddersfield bound cyclists could be a cycle path from Woodhead Road along the line of the existing footpath to Stockwell Vale and Armitage Road.

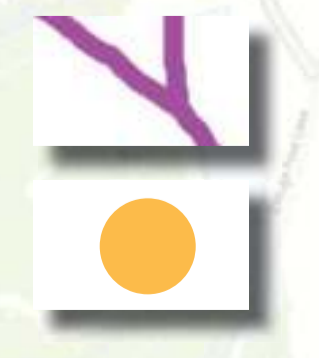
**A6024 Woodhead Road** - a segregated path within the highway verge towards Holmfirth on the southbound side, Holme Valley Camping and Caravan Park, Mytholm Bridge, new path to cricket club and Miry Lane

**KEY**

- OFF ROAD ROUTES; May include road sections, usually cul de sacs, giving access to a limited number of properties
- Existing Route; requiring no or minor improvement
- Existing route requiring major improvement
- Proposed new route
- Bridge Crossing Points



- MAIN ROAD ROUTES; A6024, A616, A635
- Improvements to main road routes;
- Linear
- Point



NOTE: THE ROUTE ILLUSTRATED WAS PRODUCED IN 2015 AND REQUIRES INTERROGATION COMPARED WITH CURRENT 2020 STANDARDS. THE PROPOSED ROUTE IS A SUGGESTED STARTING POINT AND REQUIRES FURTHER EXTENSIVE FEASIBILITY WORK TO DETERMINE THE PRACTICALITY OF ANY PREFERRED OPTIONS.





# Climate Emergency Standing Committee - Budget Planning 2022-23

DESCRIPTION	Budget adopted by Council 01/02/2021 2021-22	Budget for 2022-23 to recommend 18/10/2021
<b>Climate Emergency Committee</b>		
Community Mobilisation	£17,500	
Energy Strategy	£14,000	
Transport Strategy	£13,000	
Waste and Consumption Strategy	£500	
Environment and Land Use Strategy	£1,000	
<b>Total Climate Emergency</b>	<b>£46,000</b>	
<b>Earmarked Reserves (EMR)</b>		
	£0	
	£0	
	£0	
	£0	
	£0	
	£0	
	£0	
<b>Total EMR Climate Emergency</b>	<b>£0</b>	