

Agenda

Cabinet

Date: Thursday 16 September 2021

Time: **2.30 pm**

Place: Herefordshire Council Offices, Plough Lane, Hereford,

HR4 0LE

Notes: Please note the time, date and venue of the meeting.

For any further information please contact:

Sarah Buffrey

Tel: (01432) 260176

Email: sarah.buffrey@herefordshire.gov.uk

If you would like help to understand this document, or would like it in another format, please call Sarah Buffrey on (01432) 260176 or e-mail sarah.buffrey@herefordshire.gov.uk in advance of the meeting.

Agenda for the meeting of Cabinet

Membership

Chairperson C Vice-Chairperson C

Councillor David Hitchiner, Leader of the Council Councillor Liz Harvey, Deputy Leader of the Council

Councillor Felicity Norman Councillor Ellie Chowns Councillor Gemma Davies Councillor John Harrington Councillor Diana Toynbee Councillor Ange Tyler

Agenda

Pages

1. APOLOGIES FOR ABSENCE

To receive any apologies for absence.

2. DECLARATIONS OF INTEREST

To receive declarations of interests in respect of Schedule 1, Schedule 2 or Other Interests from members of the committee in respect of items on the agenda.

3. MINUTES 11 - 44

To approve and sign the minutes of the meetings held on 22 July and 29 July 2021.

HOW TO SUBMIT QUESTIONS

The deadline for submission of questions for this meeting is:

9:30am on Monday 13 September 2021.

Questions must be submitted to councillorservices@herefordshire.gov.uk. Questions sent to any other address may not be accepted.

Accepted questions and the response to them will be published as a supplement to the agenda papers prior to the meeting. Further information and guidance is available at https://www.herefordshire.gov.uk/getinvolved

4. QUESTIONS FROM MEMBERS OF THE PUBLIC

To receive questions from members of the public.

5. QUESTIONS FROM COUNCILLORS

To receive questions from councillors.

6. ENVIRONMENTAL BUILDING DESIGN STANDARDS

45 - 90

This paper seeks agreement to approve the output of the proposed environmental building design standards which will set the standard for future developments and retrofit of housing schemes across the county.

7. VARIATION TO WEST MERCIA ENERGY JOINT AGREEMENT

91 - 96

This report recommends to Cabinet and seeks approval that the Joint Agreement be varied to update the formulae for the distribution of the accumulated surplus each year.

The Public's Rights to Information and Attendance at Meetings

In view of the continued prevalence of covid-19, we have introduced changes to our usual procedures for accessing public meetings. These will help to keep our councillors, staff and members of the public safe.

Please take time to read the latest guidance on the council website by following the link at www.herefordshire.gov.uk/meetings and support us in promoting a safe environment for everyone. If you have any queries please contact the Governance Support Team on 01432 261699 or at governancesupportteam@herefordshire.gov.uk

We will review and update this guidance in line with Government advice and restrictions. Thank you for your help in keeping Herefordshire Council meetings safe.

You have a right to:

- Attend all Council, Cabinet, Committee and Sub-Committee meetings unless the business to be transacted would disclose 'confidential' or 'exempt' information.
- Inspect agenda and public reports at least five clear days before the date of the meeting.
 Agenda and reports (relating to items to be considered in public) are available at www.herefordshire.gov.uk/meetings
- Inspect minutes of the Council and all committees and sub-committees and written statements of decisions taken by the Cabinet or individual Cabinet Members for up to six years following a meeting.
- Inspect background papers used in the preparation of public reports for a period of up to four years from the date of the meeting. (A list of the background papers to a report is given at the end of each report). A background paper is a document on which the officer has relied in writing the report and which otherwise is not available to the public.
- Access to a public register stating the names, addresses and wards of all Councillors with details of the membership of Cabinet and of all Committees and Sub-Committees. Information about councillors is available at www.herefordshire.gov.uk/councillors
- Have access to a list specifying those powers on which the Council have delegated decision making to their officers identifying the officers concerned by title. Information about councillors is available at www.herefordshire.gov.uk/councillors
- Copy any of the documents mentioned above to which you have a right of access, subject to a reasonable charge (20p per sheet subject to a maximum of £5.00 per agenda plus a nominal fee of £1.50 for postage).
- Access to this summary of your rights as members of the public to attend meetings of the Council, Cabinet, Committees and Sub-Committees and to inspect and copy documents.

Recording of meetings

Please note that filming, photography and recording of this meeting is permitted provided that it does not disrupt the business of the meeting.

Members of the public are advised that if you do not wish to be filmed or photographed you should let the governance services team know before the meeting starts so that anyone who intends filming or photographing the meeting can be made aware.

The reporting of meetings is subject to the law and it is the responsibility of those doing the reporting to ensure that they comply.

The council may make a recording of this public meeting or stream it live to the council's website. Such recordings form part of the record of the meeting and are made available for members of the public via the council's web-site.

Public transport links

The Herefordshire Council office at Plough Lane is located off Whitecross Road in Hereford, approximately 1 kilometre from the City Bus Station.

The location of the office and details of city bus services can be viewed at: http://www.herefordshire.gov.uk/downloads/file/1597/hereford-city-bus-map-local-services-



Guide to Cabinet

The Executive or Cabinet of the Herefordshire Council consists of a Leader and Deputy Leader and six other Cabinet Members each with their own individual programme area responsibilities. The current Cabinet membership is:

Cllr David Hitchiner (Leader) (Independents for Herefordshire)	Corporate Strategy and Budget		
Cllr Liz Harvey (Deputy Leader) (Independents for Herefordshire)	Finance, Corporate Services and Planning		
Cllr Diana Toynbee (The Green Party)	Children's and Family Services, and Young People's Attainment		
Cllr Gemma Davies (Independents for Herefordshire)	Commissioning, Procurement and assets		
Cllr Ellie Chowns (The Green Party)	Environment and Economy		
Cllr Felicity Norman (The Green Party)	Health and Adult Wellbeing		
Cllr Ange Tyler (Independents for Herefordshire)	Housing, regulatory services, and community safety		
Cllr John Harrington (Independents for Herefordshire)	Infrastructure and Transport		

The Cabinet's roles are:

- To consider the overall management and direction of the Council. Directed by the Leader of the Council, it will work with senior managers to ensure the policies of Herefordshire are clear and carried through effectively;
- To propose to Council a strategic policy framework and individual strategic policies;
- · To identify priorities and recommend them to Council;
- To propose to Council the Council's budget and levels of Council Tax;
- To give guidance in relation to: policy co-ordination; implementation of policy; management of the Council; senior employees in relation to day to day implementation issues;
- To receive reports from Cabinet Members on significant matters requiring consideration and proposals for new or amended policies and initiatives;
- To consider and determine policy issues within the policy framework covering more than one programme area and issues relating to the implementation of the outcomes of monitoring reviews.

Who attends cabinet meetings?

Members of the cabinet, including the leader of the council and deputy leader – these are the decision makers, only members of the cabinet can vote on recommendations put to the meeting.
Officers of the council – attend to present reports and give technical advice to cabinet members
Chairpersons of scrutiny committees – attend to present the views of their committee if it has considered the item under discussion
Political group leaders attend to present the views of their political group on the item under discussion. Other councillors may also attend as observers but are not entitled to take part in the discussion.



The Seven Principles of Public Life

(Nolan Principles)

1. Selflessness

Holders of public office should act solely in terms of the public interest.

2. Integrity

Holders of public office must avoid placing themselves under any obligation to people or organisations that might try inappropriately to influence them in their work. They should not act or take decisions in order to gain financial or other material benefits for themselves, their family, or their friends. They must declare and resolve any interests and relationships.

3. Objectivity

Holders of public office must act and take decisions impartially, fairly and on merit, using the best evidence and without discrimination or bias.

4. Accountability

Holders of public office are accountable to the public for their decisions and actions and must submit themselves to the scrutiny necessary to ensure this.

5. Openness

Holders of public office should act and take decisions in an open and transparent manner. Information should not be withheld from the public unless there are clear and lawful reasons for so doing.

6. Honesty

Holders of public office should be truthful.

7. Leadership

Holders of public office should exhibit these principles in their own behaviour. They should actively promote and robustly support the principles and be willing to challenge poor behaviour wherever it occurs.

Herefordshire Council

Minutes of the meeting of Cabinet held at Three Counties Hotel, Belmont Road, Belmont, Hereford, HR2 7BP on Thursday 22 July 2021 at 2.30 pm

Councillor David Hitchiner, Leader of the Council (Chairperson) Present:

Councillor Liz Harvey, Deputy Leader of the Council (Vice-Chairperson)

Councillors Felicity Norman, Ellie Chowns, Pauline Crockett, Gemma Davies,

Councillors Peter Jinman, Jonathan Lester, Terry James, Bob Matthews

John Harrington and Diana Toynbee

and Toni Fagan

Group leaders / representatives in

attendance

Scrutiny chairpersons in

attendance

Councillors Jonathan Lester

Other councillors in

attendance:

Councillors Ange Tyler and David Summers

Officers in attendance: Chief Executive, Acting deputy chief executive - solicitor to the council and

Acting deputy chief executive - chief finance officer

APOLOGIES FOR ABSENCE 17.

Councillor Ange Tyler was not able to attend the meeting in person. She joined the meeting by remote video link to present reports in her portfolio area but did not vote on the decisions taken.

OPENING REMARKS 18.

The leader of the council opened the meeting with a statement highlighting the concern of cabinet members regarding the continuing impact of covid. The number of cases in Herefordshire was doubling every seven days with rates extremely high in teenagers and young adults. The leader urged residents to remain cautious and to keep social distancing, wear a mask in public places and to get vaccinated as soon as possible.

The leader explained that the Cabinet meeting was being held in a covid secure venue with a limited number of people in attendance to ensure social distancing could be observed and urged all those watching to continue to protect one another.

DECLARATIONS OF INTEREST 19.

None.

20. **MINUTES**

Resolved: That the minutes of the meeting held on 24 June 2021 be approved

as a correct record and signed by the Chairperson.

QUESTIONS FROM MEMBERS OF THE PUBLIC (Pages 7 - 20) 21.

Questions received and responses given are attached as appendix 1 to the minutes.

22. QUESTIONS FROM COUNCILLORS (Pages 21 - 24)

Questions received and responses given are attached as appendix 2 to the minutes.

23. HEREFORD CITY CENTRE TRANSPORT PACKAGE (HCCTP) - DEVELOPMENT OF THE REMAINING ELEMENTS

The cabinet member infrastructure and transport introduced the report. He commented that:

- many elements of the scheme did not appear to have been appropriately thought out;
- the way such projects were managed had now changed;
- councillors had a responsibility to keep an eye on things and challenge officers;
- the overspend on the project had been identified in 2017 and there should have been questions asked at that time as to how to deal with the situation.

The interim director for economy and place spoke to explain the history of the project. Cabinet members heard that:

- The overspend emerged in 2017;
- Using compulsory purchase orders was not an easy option and the process could be protracted;
- It was decided in 2017 to utilise some of the contingency funds within the budget to deal with the increased costs of land acquisition;
- In March 2021 further monies from the project envelope had to be allocated to deal with the land purchase costs
- The overspend meant that the remaining budget was insufficient to deliver the other elements;
- The council had made commitments to the Marches Local Enterprise Partnership (LEP) on the delivery of these projects;
- The report sought to draw a line under the previous governance and activity and move forward with the remainder of the programme as individual projects.

In discussion of the report cabinet members noted that:

- There should be sufficient funds in the budget for the design work on the transport hub to be carried out, and this would include public consultation;
- The design needed to be clever and need not involve a large amount of structure;
- The report had brought a lot of clarity to the situation but there was disappointment in the way the project had been managed previously;
- The remaining elements would have an impact on disabled people and those unable to use a car, it would also be a significant element in the council's aspirations to address climate change.

The chief executive expressed concern about the way costs on the project had escalated, lack of governance and communications to residents on progress and performance. He stated that it was right to conduct an audit investigation and apologise for inaccurate information that had previously been shared with residents and councillors.

Group leaders and representatives were invited to make comments and ask questions on behalf of their groups. Key points were noted as:

- Investment was needed in other parts of the county, as well as in the city.
 Cabinet members highlighted in response that this programme had been inherited from the previous administration and was constrained by the commitments made in the funding bid to the LEP, but other projects sought to invest in all the market towns and rural communities;
- There had been failures to communicate the true state of affairs to councillors and reports produced in 2017 made no admission of the magnitude of the costs,

- it was suggested that if this had been raised at that time action would have been taken by the previous administration of the council:
- It was queried whether cabinet members had acted as quickly as possible to identify the problems. Cabinet members responded that they did not think they could have acted faster and noted that investigations took time to complete properly;
- The business case stated that the cycle path was always intended to be off road
 and it was contended that the project was needed and had realised benefits in
 greater connectivity for the railway station and access for development land;
- There was support for making the area around the railway station more attractive;
- There was no specific timescale for the audit but the auditors were ready to start and would complete the work as quickly as possible;
- Additional funding would be required to complete the remaining elements of the package. No funding sources had been ruled in or out at this stage;
- It was agreed that lessons must be learned so that the mistakes of this project were not repeated;
- In response to a query the cabinet member infrastructure and transport confirmed he had instructed officers to settle any compulsory purchase orders relating to the southern link road scheme at the earliest opportunity.

In discussing the recommendations set out in the report cabinet members requested that:

- the proposed audit of the programme expenditure include the LEP funded elements of the programme and what had been previously reported to the LEP;
- it be noted that changes in traffic routing had resulted in increased traffic in some routes;
- the audit report be written in such a way that it could be put into the public domain.

It was proposed by Councillor Chowns and seconded by Councillor Harrington that the following be added to recommendation (d):

'and a full climate and ecology impact assessment is included at the design stage.'

It was unanimously resolved that:

- a) Cabinet note that the current capital programme allocation of £40.651 million for the Hereford City Centre Transport Package (HCCTP) is now insufficient to complete remaining undelivered projects (transport hub and public realm) in the programme without additional funding
- b) The HCCTP programme be deconstructed into individual projects to enable clearer reporting on each project
- c) That the Chief Executive commissions a South West Audit Partnership (SWAP) audit of the expenditure on the HCCTP programme to understand the cost escalation
- d) The remaining programme funding be allocated to the development of the transport hub project design and consultation and the Interim Director for Economy and Place (in consultation with the Section 151 officer and the Cabinet Member for Infrastructure and Transport) is authorised to progress this design and consultation to enable cost certainty to be established and further delivery funding sought and a full climate and ecology impact assessment included at the design stage; and
- e) The public realm projects in the HCCTP be considered in a wider assessment of public realm and sustainable connectivity in the City and delivered as individual projects under the wider strategy ensuring the LEP objectives are delivered. The Interim Director for Economy and Place (in consultation with

the Section 151 officer and the Cabinet Member for Infrastructure and Transport) is authorised to progress this work

The meeting adjourned at 16:30 and resumed at 16:38.

24. RECOMMENDATION FOR POTENTIAL SITES TO PROGRESS AFFORDABLE HOUSING DELIVERY IN HEREFORDSHIRE

The cabinet member housing, regulatory services and community safety introduced the report. She highlighted that appendix 1 contained commercially sensitive information and so access had been restricted in line with the advice received.

The interim director of development summarised the key points of the report. There was uncertainty due to a number of factors, including covid, and the approach recommended would retain maximum control for the council so that it could adapt to unforeseen circumstances.

In discussing the report cabinet members noted that:

- The initial brief would be for net zero carbon homes but there was a small chance that the conditions of any grants from Homes England might require something different:
- Ward members would be kept informed as sites progressed;
- The current intention was to develop sites of affordable rent properties (typically 70-80% of market rate) and shared ownership properties (typically 85-90% of market rate) rather than social rent;
- These developments had potential to help people move to more suitable homes, releasing properties elsewhere, and would be more affordable to run as well as to buy or rent;
- In some circumstances where affordable homes could not be developed, recirculation of these sites would help to deliver affordable housing in more suitable locations.

Group leaders and representatives were invited to put the questions and comments of their groups. It was noted that:

- There was general support for promoting affordable housing:
- The council had an opportunity to set an example in housing design;
- Any schemes should have robust project management;
- Affordability needed to take account of any standing charges;
- The council might need to consider other means to deliver affordable housing in rural communities.

The chairman of the general scrutiny committee highlighted that members of the committee had expressed a desire to scrutinise plans for the Holme Lacy site.

The ward councillor for Dinedor Hill highlighted that the Holme Lacy site had been previously considered for housing and queried that the potential number of dwellings had increased. He also raised concerns regarding drainage and stressed the importance of communication with ward members.

The cabinet member finance, corporate services and planning explained that the council was currently in the process of updating the core strategy and encouraged any neighbourhood planning groups, parish councils or other interested groups to get in touch to discuss proposals for affordable housing in their areas.

The cabinet member young people's education and attainment left the meeting at 16:56 and did not vote on this item.

It was unanimously resolved by the remaining cabinet members that:

- a) The output of the feasibility work completed on selected council owned sites is noted;
- b) An outline design for the council site at the former Holme Lacy Primary School is commissioned to allow housing market assessment and for the designs up to and including planning submission for houses on this council owned site:
- c) An outline design for the council site at The Paddock, Aylestone Hill Ward, is commissioned to allow for the design, submission of planning application and disposal of the site subject to securing planning permission; and
- d) The Chief Finance Officer is authorised to take all operational decisions with regard the former Holme Lacy Primary School and The Paddock, Aylestone Hill Ward, projects including any potential future land sale of the site within a budget of £400k.

The meeting ended at 5.07 pm

Chairperson

PUBLIC QUESTIONS TO CABINET - 22 JULY 2021

Question 1

Name: C Protherough

To: Leader of the Council

Since 2019 the current Coalition has uncovered horrendously botched projects

- Total un-deliverability of the South Wye Transport Package's SLR, resulting from botched procurement. Tens of millions of pounds were returned to the LEP;
- £220k wasted attempting unnecessary, undeliverable housing development of the old Bromyard Depot, including financial bullying and intimidation of neighbours and agricultural tenants on the site;
- Chronic and Systemic failures to safeguard and protect children in the council's care over more than a decade;
- The Audit & Governance Committee warned to expect a qualified opinion for the 2019 accounts due to an inability to demonstrate Value for Money from work passed to BBLP without competition
- Failure to sign off the council's accounts since 2016, due to an outstanding Value for Money issue which remains veiled in secrecy.

What else should the public know about?

Response

Thank you for the question, when we came into office we were committed to ensuring that issues that arise when the council have got things wrong we are open and transparent about the problems, this commitment has not changed. We will not shy away from difficult issues and as you will see from the agenda today, we are sharing an issue in respect of the Hereford City Centre Transport program. The recommendations show how we are proposing to bring transparency by commissioning a South West Audit Partnership (SWAP) audit of the expenditure on the HCCTP programme to understand the cost escalation; the remaining programme funding be allocated to the development of the transport hub project design and consultation and the Interim Director for Economy and Place (in consultation with the Section 151 officer and the Cabinet Member for Infrastructure and Transport) is authorised to progress this design and consultation to enable cost certainty to be established and further delivery funding sought; and the public realm projects in the HCCTP be considered in a wider assessment of public realm and sustainable connectivity in the City and delivered as individual projects under the wider strategy ensuring the LEP objectives are delivered.

Question 2

Name: J Liddle, Ledbury

To: cabinet member, adults and wellbeing

West Mercia Rape and Sexual Abuse Support Centre (WMRSASC) has had to close its waiting list for referrals for counselling due to lack of funding. I appreciate that the Council have found emergency funding for three months. This is an essential service, taking referrals from a variety of settings, including NHS, GPs, social care and the police. It provides support and help for women, men and children aged 5+ who are impacted by sexual and domestic violence. There is currently a long waiting list and referrals have to wait for 18 months to be seen. Can the Cabinet say how it intends to work with strategic partners to find a longer term funding solution, so that the WMRSASC services are resilient, and not dependent on grant funding.

Response

This regional service is not one which the council has commissioned in the past. The council is therefore having discussions with WMRSASC, in conjunction with Worcestershire County Council, to understand the current risk to services and the population need and clarifying how quality and sustainability of provision could be secured. This will also involve partners including Police and Herefordshire, Worcestershire CCG and other NHS organisations. The council recognises the importance of ensuring appropriate support for victims of sexual violence and will work to help find solutions.

Question 3

Name: Mr A Bridges, Hereford

To: cabinet member, infrastructure and highways

In 2018 in a review by Historic England they stated they were shocked that in ten years nothing had been done to create a high-quality public space in front of the railway station. They expected the Council to have a long-term transport strategy looking to encourage the use of modes other than the private car. That included public transport for the workforce, the students, and their families hoping to make a real success of the new University, then thought to be opening in 2019. We are now in 2021, so what is happening?

Response

Thank you for your question, it is interesting that a body such as Historic England should make such a comment, I am sure many of us in the County were struck at how beautiful the station looked when the industrial buildings at Station Approach were knocked down and how lacking in good pedestrian and cycling connectivity that area is. I am determined that a design for the transport hub does not obscure this vista but celebrates it. I am also conscious that currently the environment around the station is bleak and uninviting and opportunities were not taken to put in a segregated cycle lane, better pedestrian crossing

points or decent green landscaping when the City Link Road was built. I hope that will be rectified by the soon to be recommenced and long awaited design of the hub and improvements to the public realm here.

For clarity and background, some very early design development for the transport hub and public realm elements was produced by BBLP following the completion of the City Link Road (CLR) after the 2017 Cabinet Member decision to develop a concept design. Commencement of stakeholder engagement and consultation was delayed as a result of the pre-election period for local and general elections in 2019. During this period further negotiations were ongoing with remaining land owners in relation to claims associated with land acquired by Compulsory Purchase Order (CPO) for the CLR. The need to review the budget in the light of this was raised with me in early 2020 and further works on the design had to be paused whilst this took place. I do not think this early concept work reflected the ambitions of the new administration nor grasped the opportunities we have here to create a transport hub that is both efficient in design and respectful of our historic railway building. We will be reviewing the early work by BBLP to ensure value for money was achieved.

I am committed to the delivery of the remaining elements of the project as they are a core element of to the Council's plan for transport in the city of Hereford. It is disappointing that these elements have not substantially progressed to date and that lack of clarity over remaining budget, the increases in land costs and forecast increase in professional fees have diminished the original capital available to deliver these key elements of the transport package. This decision, should enable us to progress the design and consultation so that we can have certainty on how much further funding we will need to find to deliver the Transport Hub. There will be meaningful opportunities for stakeholders and residents to feed into this work so we get the very best fit for our station, hub and City.

Supplementary question

Councillor Harrington, thank you for the detailed response which is most appreciated. As you are aware the access and egress to the railway station is currently one way in and out and causes all sorts of traffic issues with the junction of Morrisons. As part of the design work there needs to be a better flowing system for traffic for all modes of transport as the current design layout just doesn't work today.

Can we please ensure that as part of the works there is more than one way in and out of the new transport hub and also remove the traffic lights and replace with roundabouts, otherwise it will just become more of a bottleneck and will not resolve what is trying to be achieved.

Response

It's a very good point which has been raised by many other people. At the moment we don't have a design, as we'll discover as we talk through this meeting today but the idea that we would only have one access point has been something that's been discounted by myself. So two access points, an entrance and an exit is the direction that we'll be giving to our designers.

Question 4

Name: P Rudd

To: cabinet member, corporate services, finance and planning

In 2017 the £1m overspend on the **Blueschool House** project budget was found to have involved officers acting beyond their delegations and outside of the requirements of the council's constitutional Financial Regulations. Has an investigation of officer actions taken place in this instance too and if so, have any of the council's procedures, regulations or authorities been breached upon this occasion?

Response

As you can see from the agenda, the recommendation is that SWAP carry out an audit of expenditure and how the costs escalated. Their work will be reported to the Audit and Governance committee. In addition, the Chief Executive will use the report to consider what steps are taken in terms of officers.

Question 5

Name: C Palgrave, How Caple

To: cabinet member, infrastructure and transport

I must praise this council administration for being open and transparent about the legacy of overspend and poor project management they inherited in May 2019. I would like to know what impact the approximate £6m overspend on the City Link Road will have on the delivery of other elements of the HCCTP, namely the Transport Hub, new cycling and pedestrian spaces, public realm works on Commercial Road, Blueschool Street and Newmarket Street and crucially, flood defence work to protect the Edgar Street Grid? Given the horrendous flooding in Western Europe this month, I think it is essential the Council do not delay or scale back adaptations to protect Hereford from a similar fate.

Response

Thank you for your question Mr Palgrave and can I take this opportunity to thank you and others for your long and continued interest in getting the City a transport hub that is modern, fit for purpose and truly reflective of the need for local authorities to respond to government direction to support alternative means of transport and meaningful modal shift on our networks. The short answer is the hub that you and I and many others would like to see will not be delivered without further funding being sought, however please see my answer to Mr Bridges. We are committed to delivering the remaining elements of the project as they are a core element of the Council's plans for a 21st century transport strategy in the city of Hereford and will make sure we get the very best in modern and efficient design. I do not intend to scale back the scope of the transport hub or public realm projects, in fact this delayed start may allow us to be even more ambitious in design (and more judicious in further spending).

Question 6

Name: E Morfett, Breinton

To: cabinet member, infrastructure and transport

Despite years of work to access development sites in the City, nobody surveyed the groundwater flow rates under the Essex Arms site. This is extraordinary given that the natural gravel aquifers,1.5m to 3m thick are so close to surface and the site regularly floods. I understand that Avara and Heineken extract millions of gallons of groundwater from the City aquifer. This is in an extensive buried river channel that flows East from Three Elms underlying much of the proposed development areas in the City.

I would like to ask what are the flood management plans in the event of cessation of groundwater abstraction by some or all of commercial operations? How much would the groundwater levels rise and how would this affect seasonal surface water flooding? Would the County Council be liable for pumping costs to protect low-lying developments?

Response

Thank you for your question Mr Morfett. I am told that assessment of groundwater formed part of the geo-environmental investigation for the City Link Road that was understood to be sufficient for the development of that project.

During 2019/20 an Integrated Catchment Strategy was completed. A copy of this can be provided. This study did not consider groundwater monitoring at the time but it should be noted that the Edgar Street area is governed primarily by the channel capacity of the Widemarsh Brook. The provision of groundwater flow data would not have brought any tangible benefit to the accuracy of the Widemarsh Brook hydraulic model, so there would not have been any benefit to completing groundwater monitoring. Although there are some basements within properties located within the Edgar Street grid area of Hereford, groundwater flood risk is governed by the level of the receiving watercourse which in most cases is lower than adjacent property.

It is worth noting that the Essex Arms Site and other low lying sites in the surrounding area such as the Merton Meadow area are also at risk of fluvial flooding from the Widemarsh Brook. The Flood Risk Assessment prepared for the City Link Road identified the need to raise ground levels in these low lying plots to mitigate the fluvial flood risk in the hope that such ground raising would also mitigate groundwater flood risk in these sites. It is our view as a new administration that a more natural solution can be found to mitigating the flood risk here, by allowing a City wetland to be developed on the Essex Arms site for example, as well as attenuation measures that would be more practical and considerably cheaper than raising ground levels, with all the considerable cost and risk that would bring.

Supplementary question

Thank you for your response to my question on groundwater levels beneath the City Link Road and groundwater flow rates under the Essex Arms Site. I am heartened to hear

that the development of our Natural Capital in the form of a City Wetland Wildlife Reserve with ponds for the flood alleviation will be considered in the scheme.

My question remains unanswered on the impact of water abstraction by Heineken and Avara on water levels in the proposed development areas. It is a technical due diligence question that relates to flood management over a major development site.

Engineers have calculated the need to raise ground levels but we don't know the impact on groundwater levels if commercial water abstraction ceased. The chances are, like many flood zones, that a combination of exceptional surface and subsurface flows could combine to create exceptional flooding conditions. The main river rises almost 7m in exceptional floods and the City Groundwater level also rises.

Did the planners overlook the very high water volumes pumped out of the City aquifer and the impact, if pumping ceased, on the peak groundwater levels across the development site?

Response

That is a very technical question which I can't answer in the room. Your general point – was enough due diligence given to the impacts of flooding on that area through the Yazor Brook, did we do enough mitigation – my personal view is that we haven't yet done enough mitigation if we were to continue with previous plans but we are not continuing with some of the plans for the development of the site.

A detailed written answer was promised to this question.

Question 7

Name: N Geeson, Breinton

To: cabinet member, infrastructure and transport

Last winter I photographed and mapped numerous winter springs and streams that input to the Yazor Brooks floodplain from slopes above. These, and therefore their implications for increased flood risk, are not mentioned in any Council reports supporting planning applications, e.g. at Three Elms or along the City Link Road. They do not seem to have been included in any modelling. To reduce flood risk it will be good if the site opposite the new medical centre is left as a sink, as an urban wetland park, but even with that site left open the 2012 Flood Alleviation Scheme has not protected e.g. Merton Meadows from flooding (e.g. 2012, 2019/20). Please can we be assured that there will be a comprehensive review of flood risk strategy for Hereford City, especially before more buildings are built along the City Link Road?

Response

Thank you Dr Geeson for this question and your considerable interest and efforts in highlighting the effects of the Yazor brook and its tributaries on flooding in and around the City. I am aware that you raised this matter with me directly by email earlier this month and I have shared this with Cllr Harvey who has responsibility for planning and updating

the Core Strategy. I have asked officers to look into this matter and liaise with you and provide a briefing to myself and Cllr Harvey. We will then be able to provide a more detailed response to you. Please be assured that any planned development (including any along the City Link Road) would need to produce an up to date and comprehensive flood risk assessment for consideration by the planning authority. With regard to your suggestion of an urban sink being left to help mitigate the effects of any flooding, please see my response to Mr Morfett, we support this approach as a new administration.

Question 8

Name: M Willmont, Hereford

To: cabinet member, infrastructure and transport

Path at Saracens Head Hereford

This section of path has now been closed to the public for well over a year.

Can the appropriate Cabinet Member explain in detail why the repairs are delayed and when the path will be re-opened. If it is a question of responsibility for the work, given the importance of the path, why have the Council not carried out the work and argued about the responsibility/cost afterwards?

Response

Thank you Mr Willmont, I do agree we need to reopen this path as soon as possible and have been pushing on this regularly since its closure. This a complicated one. The path is supported by the adjacent buildings connected to the pub and we needed to establish the condition of the supports and what the appropriate repair works are that need to be done by the building owner and the council. There was a considerable delay caused by differences of opinion of ownership and who was responsible for the works. This has been amicably resolved and some shoring works have been done by the owners, allowing us to then assess the integrity of the Victorian concrete supporting beam. This took time and there is no simple solution to this repair. A survey was needed due to the age and condition of the path and the supporting beams and specialised contractors were required to undertake the survey, which we could not do outside certain times due to river levels and the need to work from the river. We undertook a preliminary survey last year. The extensive survey of the beams is programmed to be complete next week. The information will then be collated and modelled. As soon as we have the condition confirmed we will be able to take the next steps to repair and reopen the path. I anticipate this will be within the next 6 weeks.

Question 9

Name: J Furniss, Hereford

To: cabinet member, corporate services, finance and planning

What are the reasons recorded or given, for why the previous Conservative led administration chose a valuation and payment method for CPO landblocks, which allowed landowners a six-year window to argue the final cost?

Response

The council used compulsory purchase powers to acquire land for the City Link Road. This enabled land to be assembled using statutory powers if it could not be acquired by agreement / negotiation. It is the CPO process under the Limitations Act 1980 that provides the six year period for the claimants to submit claims to the council and for the parties to reach an agreed value for the final claim payments. Whilst most of the land acquisition payments have been agreed and paid there are a small number of landowners where final valuation and payments are still being discussed to reach agreement.

The CPO route provides the council with certainty on the ability to acquire the necessary land in a defined timescale and within a prescribed legal framework of costs that are payable. It is therefore normal practice to instigate a CPO process such that the project can proceed as planned, even for plots where a negotiated purchase is underway. This approach provides risk mitigation against land acquisition.

Question 10

Name: R Palgrave, How Caple

To: cabinet member, infrastructure and transport

Recommendation d) in the Cabinet report for 22 July is to re-allocate the remaining HCCTP programme funding to developing the transport hub project design and consultation so that cost certainty can be established and further delivery funding sought. This is a welcome step: however the meeting papers don't disclose how much that re-allocated funding amounts to. Back in November 2017, the then Cabinet authorised the Director for Economy, Communities and Corporate to "take all operational decisions necessary to progress detailed design and feasibility within an allocated budget of £563k for the delivery of the Transport Hub and ATM element of the package." Can we hear today how much of this £563k has been spent, what it has delivered, and how much more money is needed to complete the designs?

Response

I understand that to date £297k of the original £563k Transport Hub and Public Realm professional fees budget has been spent on concept design development. This work was carried out by BBLP and will be subject to a value for money review by this administration. It is anticipated that the remaining balance will be insufficient to complete the remaining works required but that there will be sufficient funds available in the overall budget to

undertake the detailed design work which is essential for us to complete in order for us to understand the further funding we will need to secure the delivery of a fit for purpose, modern 21st Century transport hub for the City. This decision today would allow to proceed on that basis.

Supplementary question

The HCCTP business case from November 2015 stated that new trees and shrubs would be planted along the CLR to compensate for the loss of greenery associated with the scheme. Also that the then design of the Transport Hub included the introduction of resin bound footways and the planting of new trees in the station's forecourt. Have the CLR trees been planted and is the commitment to plant trees in the station forecourt going to be met?

Response

No I don't think the commitment has been met yet but then neither has the delivery or velocity outcomes that were promised at this point. I can assure you that as an administration we intend to plant a huge amount of greenery and plant trees hopefully along both the city link road and directly outside the station but in actual fact we are discussing whether or not we would have an apple orchard outside of the train station. What better way to arrive in Hereford than to walk outside instead of seeing overengineered metal sculpture or block work that's highly expensive and not particularly any more useful than a normal surface and instead see a garden in front of you or specimen orchard to be able to greet you and link you into town. That's something we will definitely be concentration on.

Question 11

Name: V Wegg-Prosser, Breinton

To: cabinet member, infrastructure and transport

While welcoming the HCCTP Update published on the Council's News site on Wednesday 14 July, and the Chief Executive's unreserved apology for management and communications failures throughout the project, there are nevertheless serious concerns which need to be addressed.

The land acquisition costs for the HCCTP had an £11.135M estimate in the 2015 business case. The forecast land acquisition costs as at January 2021 (worst case scenario) have an estimate of £17.75M - an increase of £6.615M (less £1.5M if best case scenario is achieved by the settlement deadline of 31.12.2021).

The Council appeared to justify this more than 50% increase by claiming that they had procured more land than was originally envisaged for the City Link Road route. Using these figures, how much per acre acquired is the cost of this extra land - best and worst case scenario?

Response

I understand the increase in land cost has arisen from a number of factors not just the acquisition of additional land. Land beyond that required for the City Link Road was included in the original CPO for regeneration purposes. An important element of the proposed SWAP audit is to understand how land acquisition decisions were made because to date it is not clear to me what governance was in place for those decisions to be made.

In addition, following confirmation of the orders, I believe one plot the owner exercised their statutory right to require the Council to acquire the full plot resulting in an increase in land acquired beyond the original CPO.

Other land cost increases have resulted from increased costs associated with land included in the original CPO from factors including; disturbance costs for the legal interests in the land and increases in agent and legal fees.

On this basis the allocation of cost against the land beyond that required for the road is not an appropriate calculation, given as outlined above the cost increases are not solely attributable to this element. The land acquired was not intended to be solely for the construction of the road, but to support the realisation of city centre regeneration. To date this has included providing student accommodation to support the development of NMITE & Hereford College of Arts, and the station medical centre providing improved healthcare facilities for local residents. The balance of the land which is additional to the land required to deliver the City Link Road is available for further regeneration projects including the provision of housing and green spaces within this area of the city

Question 12

Name: T Meadows, Hereford

To: cabinet member, infrastructure and transport

Did the previous Conservative Administration let the public know that the road we are using today was not yet fully paid for?

Response

Thank you for that. That is a good question and perhaps one for the previous Cabinet Member or former Leader of the Council under the Conservatives to answer. The short answer is I suspect not, I have certainly not ever heard a member of the previous administration admit that whilst the road has been physically built (at considerably more cost than projected) outstanding costs have not been fully paid and closed off. The costs are associated with a number of landowner payments where agreement on value of their land has not yet been reached.

What is now clear is that the increases in City Link Road land costs and forecast increase in professional fees set out in the cabinet report have diminished the budget available to deliver the key sustainable travel elements of the transport package, the Transport Hub and Public Realm works which are contractual commitments to the Marches LEP. This cabinet decision will enable us to progress and to enable cost certainty to be established

and further delivery funding sought to deliver the Transport Hub and to consider and delivery the public realm projects as part of a masterplan for the city.

Supplementary question

When did you as a new administration become aware that the city link road wasn't actually paid for?

Response

Not immediately strangely enough. You would think as the cabinet member I would have been made aware of that fairly quickly but it was about six months into my tenure that it was discovered, partly because we had started an investigation into the project management and the financial accounts of the road.

Question 13

Name: E Morawiecka, Breinton

To: cabinet member, corporate services, finance and planning

The June 2016 SWAP report clearly showed budgets for the City Link Road at £27M and Hereford City Centre Transport Package at £13.6M. This SWAP report stated "It has been agreed, by the Head of Corporate Finance and Deputy Section 151 Officer that the relationship between the 'Hereford City Link Road' and 'The Herefordshire City Centre Transport Package' figures are explained in future reports, and that the categories of expenditure are coded to facilitate detailed reporting".

Despite this agreement, the previous administration maintained, even at CPO public inquiry, that at £34M the City Link Road was within budget and left sufficient funds to complete the entire project. After requests from the public and opposition councillors to urgently review the detailed spend and budget on this project which were repeatedly rejected, what action can be taken against those who deliberately mislead?

Response

I share your concern that we need to understand how money has been spent on this project and I asked the same question when I was in opposition. As you can see from the papers, there is a recommendation that our internal audit team carry out an audit of the expenditure and of the cost escalation. I fully support this recommendation and it will enable the spotlight of public examination to be shone on the spend on this project. Once this has been carried out, the chief executive will consider if there are any further actions to be followed.

Supplementary question

I would like to thank Councillor Harvey for her response. I appreciate the work and efforts Councillor Harvey put in over many years to try and obtain good project management and tight budgetary control on large capital projects. However, the SWAP report on Blueschool house seemed to make little to no difference as to how capital budgets were

managed by the previous administration. The current report on the City Link Road appears to indicate that no lessons were learned from that SWAP report.

What reassurance can the public receive that money spent on a further SWAP report on the City Link Road, will actually change the culture and management of public money in Herefordshire to better ensure that there is robust financial management, and that the Council will obtain value for money for local taxpayers?

Response

I can understand that members of the public listening will be wondering what it is that needs to be done in order to learn lessons like these. I think all that I can say is that there are different hands on the tiller now, we are a different administration to the one under which these issues were generated. We also have a new chief executive who is sending very strong messages to officers about his expectations in terms of how projects are to be delivered and how capital programs are to be managed, we have a section 151 officer who is all over the finances and is keeping a very tight control on how we release funds and under what conditions we start projects going. I think with those three differences coming together in a positive and reinforcing fashion I hope that we will not find ourselves in this position again and that lessons will be learned and they are being learned and that we can make sure that the projects under our control now are delivered in an organised timely and financially controlled fashion.

Question 14

Name: A Morawiecki, Breinton

To: cabinet member, infrastructure and transport

A key decision was taken in Nov 2017 by the then Cabinet member for Infrastructure for the Director for Economy, Communities and Corporate be authorised to take all operational decisions necessary to progress detailed design and feasibility within the allocated budget of £563,000 identified in paragraph 24 for the professional fees associated with the remaining package elements of a transport hub and upgrading the existing highway from the junction of the City Link Road, along Commercial Road, Blue School Street to its junction with Widemarsh Street and Newmarket Street to inform further decisions. Where can the detailed design and feasibility work that was commissioned for the remainder of the project be found and who provided it and at what meeting of the council was this key decision made?

Response

Some design development for the transport hub and public realm elements took place following the 2017 Cabinet Member decision to develop a concept design within an allocated budget of £563,000, please see my answer to Mr Palgrave. This work will be subject to a value for money exercise by this administration and those results will be shared with the public.

I understand commencement of stakeholder engagement and consultation during the last administration was delayed as a result of the pre-election period for local and general elections in 2019. During this period further negotiations were ongoing with remaining

land owners in relation to claims associated with land acquired by CPO. The need to review the budget in the light of this was identified in early 2020 and further detailed design works on the design were paused whilst this took place and therefore this concept design has not been published.

This cabinet decision today will enable us to progress detailed design and consultation and to enable cost certainty to be established and further delivery funding sought to deliver the Transport Hub and to consider and delivery the public realm projects as part of a masterplan for the city.

Supplementary question

Thank you for the detailed response, though I note that the answer does not provide the information as to which council meeting in 2017 this key decision was taken. Please would you provide the date of the Herefordshire Council meeting at which the key decision to spend £563,000 was approved.

My supplementary question is "As this was a key decision, and with the value being in excess of £500K, the design work should have gone out to competitive tender to assure Value for Money for the taxpayer. Where was the competitive tender advertised and if not, why not?

Response

A written response was promised to this question.

COUNCILLOR QUESTIONS TO CABINET - 22 JULY 2021

Question 1

Councillor Tracy Bowes, Belmont Rural Ward

To: Cabinet member, infrastructure and transport

The questions and concerns being raised by Independents and It's Our County Councillors and by members of the public back in 2016 and 2017 should have led to these overspends being admitted to and action taken to address the ballooning project costs. How was it that their questions and concerns were allowed to be deflected with misleading and dissembling responses from Officers and Politicians?

Response

Thank you Cllr Bowes, that is a fair question. I cannot say whether councillors or officers deliberately set out to mislead or dissemble in their responses but I can say it is my opinion that the Council historically has fallen short in giving clear and fair responses to questions from members of the public and councillors. However, I have full faith in the new Chief Executive's open, honest and robust approach to transparency.

Looking forward, we as an administration have always tried to be as honest and open as possible when responding to councillor and public questions, no matter how embarrassing or otherwise those answers may be because if we are not always accountable to the public what is the point of being elected representatives of the public - being clear and transparent is the least tax payers can expect from us.

Supplementary question

Thank you for your response and in the interests of transparency, are there any other areas of concern the public should be aware of?

Response

I don't know if you mean just relating to the HCCTP or other areas. I think to be honest we're getting to the back of the cupboard of things that we need to tell the public about that have not been entirely transparently displayed in the past so nothing obvious, but if there is it'll go into the public domain because we are publicly accountable. What's the point of being elected by the public to be accountable and the very first thing that we do is seek to protect our own reputation or the reputation even of a different administration? So if anything is looming - and we have always asked for things that were looming to be brought to us and that's why it was very disappointing that it took six months for me to be told that the compulsory purchase mechanism we used meant that we were going to overspend on the land purchases - we are pretty much assured that that won't happen again but in terms of what's in the cupboard I think the door was quite wide open at the moment and the lights in there.

Question 2

Councillor William Wilding, Penyard Ward

To: Cabinet member, infrastructure and transport

Ref the City Link Road .-

Surely the point of the road connecting to a transport hub, is so we could provide active transport measures linking it to the city. At present this road doesn't have a dedicated cycle path. Why was this not designed into the original scheme?

Response

Thank you Cllr Wilding, I concur with the opening part of your question but cannot answer the second. That is a question that should be asked of the previous Conservative Cabinet Member or the previous Leader of the Council.

I do know that when the City Link Road was first being publicly discussed way back in 2009/10 much focus was given by the then Cabinet Member, Cllr Graham Powell, on what an important cycling route this would be – to and from the railway station and transport hub – but by the time we got to actual delivery we got a huge broad road with lost space in a central reservation and a shared cycle path dumped on the pavement. I cannot yet work out where along the process this change occurred or if it was originally always to be a substandard shared path on the pavement. We intend to revisit and improve this poor offering, which is no longer in compliance with the government's guidance, LTN 1/20, which says the government will no longer support shared pedestrian and cycle paths.

Supplementary question

I thank Councillor Harrington for his answer, which suggests that we ask the previous conservative administration to explain: 1) how did they get the design and cost of this road so disastrously wrong, 2) two why did the design not reflect the need to encourage active travel measures linking to the station and 3) where did the money needed to create a modern travel hub go?

Response

I can't necessarily answer that but because the thinkings of the previous administration are for themselves to explain or otherwise. I think in relation to your last question quite simply the money meant for active travel measures, including a decent cycle path if one was originally designed or planned and other elements, has gone on building the road or purchasing the land to build the road.

Question 3

Councillor Paul Andrews, Hagley Ward

To: Leader of the Council

When the link road was completed, the then Conservative Leader of the Council, Jonathan Lester, said it had been built on time and on budget. Was that true?

Response

Thank you for that question. Once again it may be more appropriate to ask that question of Cllr Lester. My own view is that I have a high regard of Cllr Lester as someone who always attempts to speak accurately and truthfully on matters but I think it is not accurate to say that the road was built on time and on budget when we have not finished paying for it and costs associated with land purchases and Compulsory Purchase Orders have increased considerably. It may be he was not presented fully with the facts before he made such statements.



Minutes of the meeting of Cabinet held at Three Counties Hotel, Belmont Road, Belmont, Hereford, HR2 7BP on Thursday 29 July 2021 at 2.30 pm

Present: Councillor David Hitchiner (chairperson)

Councillor Liz Harvey (vice-chairperson)

Councillors: Felicity Norman, Gemma Davies, John Harrington, Diana Toynbee, Jenny Bartlett, John Hardwick, Peter Jinman,

Elissa Swinglehurst, Jonathan Lester, Terry James and Bob Matthews

Officers: Chief Executive, Acting deputy chief executive - chief finance officer, Interim

Head of Legal Services, Acting Director for Adults and Communities and

Interim director of economy and place

25. APOLOGIES FOR ABSENCE

There were apologies from Councillors Ellie Chowns, Pauline Crockett and Ange Tyler.

26. DECLARATIONS OF INTEREST

None.

27. QUESTIONS FROM MEMBERS OF THE PUBLIC (Pages 7 - 8)

Questions received and responses given are attached as appendix 1 to the minutes.

28. QUESTIONS FROM COUNCILLORS (Pages 9 - 10)

Questions received and responses given are attached as appendix 2 to the minutes.

29. TO SET OUT THE COUNCILS NEW INTEGRATED WASTE MANAGEMENT STRATEGY AND WASTE HANDLING PILOTS

Cabinet member, commissioning, procurement and assets introduced the report, details of which are contained within the agenda pack.

It was noted that this was a comprehensive report which incorporated the work of the task and finish group. Waste was an important service which the council delivered to every resident in Herefordshire.

There needed to be a recognition that waste had a value and that transporting waste over long distances was unnecessary and not environmentally friendly. It was noted that there were income streams which could be generated from waste.

Thanks were expressed to the residents who had responded the survey and to community groups for their work in keeping the county clean and tidy.

The group leaders were supportive of the strategy.

Resolved that

- (a) The cabinet authorises the new Integrated Waste Management strategy for Herefordshire, adopts to the new targets within the document as detailed in Appendix A and authorises the development of a benefits realisation action plan to achieve the agreed targets;
- (b) The cabinet authorises the design, development, procurement and implementation of the proposed waste handling pilot schemes and approves the expenditure of up to £1.5m from the council's waste reserve to progress and implement the schemes;
- (c) The cabinet authorises the expenditure of the Section 106 allocation for recycling projects up to the value of £92,000 to progress the proposed waste handling pilot schemes through design, development, procurement and implementation; and
- (d) The cabinet authorises the Section 151 officer to take all operational decisions relating to the above recommendations.

30. MENTAL HEALTH AFTERCARE ARRANGEMENTS AS REQUIRED UNDER SECTION 117 OF THE MENTAL HEALTH ACT 1983

Cabinet member for education and skills who would be the cabinet member for health and wellbeing from 1 August introduced the item, details of which are contained within the agenda pack.

It was noted that it was important to get the right care in place for people when they left hospital. There was a joint standard assessment methodology with the NHS. Due to the merger of the Herefordshire Clinical Commissioning Group (CCG) and Worcestershire CCG, both counties were working in the same way.

It was suggested that the voice of the user may be beneficial and the acting director of adults and wellbeing agreed to pursue this suggestion.

The group leaders were supportive of the policy and suggested that the Health and Wellbeing Board and Scrutiny review the arrangements in due course.

RESOLVED that

- (a) The draft joint policy and draft standard operating procedure for section 117 mental health aftercare are approved; and
- (b) The Acting Director for Adults and Communities, in consultation with the Cabinet Member for health and wellbeing and the Director for Children and Families is authorised to make all operational decisions to ensure implementation of the policy and procedure, agreeing any operational changes to the documents, including those arising from case law, as required for their implementation.

31. 2022/23 BUDGET SETTING AND CONSULTATION

Cabinet member, planning, corporate services and planning introduced the report, details of which are contained within the agenda pack.

Residents, including young people, were encouraged to provide their views as part of the consultation process.

It was noted that there would be a process of participatory budgeting combined with a Citizens Assembly to look specifically at the use of new homes bonus money on climate change and getting to zero carbon.

The group leaders provided the views of their political party.

RESOLVED that

That:

- (a) the proposed timetable for the development and adoption of the Medium Term Financial Strategy and the 2022/23 budget be approved;
- (b) the approach for consulting on budget proposals for 2022/23 be approved; and
- (c) for a Citizens Assembly to be held in the late autumn to carry out a participatory budget process to inform ways of allocating the anticipated New Homes Bonus funding

32. MAJOR CONTRACT PERFORMANCE UPDATE

The cabinet member for commissioning, procurement and assets introduced the report, details of which are contained within the agenda pack.

The report was an update on a review of the major contract performance report which had been presented to cabinet on 24 September 2021. The proposals to strengthen the oversight on major projects was welcomed.

The group leaders provided the views of their political party.

Resolved that

- (a) Cabinet note the outcome of a whistleblowing investigation and, in line with the approved improvement plan, a contract management and commissioning resource is created in the corporate centre to provide capacity to support the delivery of the improvement plan using the Programme Management Office (PMO).
- (b) Cabinet approve the establishment of an improvement board to include senior officers and Cabinet members

33. RECOVERY AND INVESTMENT FUND

Cabinet member for finance, corporate services and planning introduced the item, details of which are contained within the agenda pack.

It was noted that when the more detailed work was done, there may not be a lot of demand for this fund.

The group leaders provided the views of their political party.

RESOLVED that

- a) Cabinet approve further investigation into the establishment of a recovery and investment fund to support Herefordshire businesses post Covid 19.
- b) Cabinet approve the principles and objectives of investment for a Herefordshire Recovery and Investment fund as detailed in paragraph 13.
- c) Cabinet authorises the Acting Deputy Chief Executive, Chief Finance Officer, to develop the scheme details based on the principles set out within this report and report back with the final proposals.

34. ALLOCATING THE USE OF THE CLIMATE RESERVE

Leader of the council introduced the report, details of which are contained within the agenda pack.

It was hoped that the partnership would help to inform the council's priorities.

The group leaders provided the views of their political party.

Resolved that:

- (a) The council establishes a new countywide partnership, the Herefordshire Climate and Nature Partnership (as per the Terms of Reference in Appendix 2);
- (b) The Herefordshire Climate and Nature Partnership is included on the council partnerships register as a significant partnership;
- (c) That the new Herefordshire Climate and Nature Partnership develops and leads the delivery of an ambitious new Herefordshire Climate and Nature Strategy for Herefordshire to become net zero carbon and nature rich by 2030:
- (d) A new dedicated Delivery Director is recruited to accelerate the delivery of the Council's climate and nature projects; 305 AGENDA ITEM 10
- (e) £50,000 be allocated and drawn down from the climate reserve to procure external communications resource to support the active promotion and engagement of the Herefordshire Climate and Nature Partnership;
- (f) £40,000 be allocated and drawn down from the climate reserve to procure specialist consultancy support to develop a new Herefordshire Council Nature Strategy;
- (g) £50,000 be allocated and drawn down from the climate reserve to procure specialist consultancy support to develop a new Building Retrofit Strategy and to undertake an options appraisal for accelerating building retrofit across the county;
- (h) £220,000 be allocated from the climate reserve to establish a new Climate and Nature grant scheme to empower local community groups, organisations and parish councils to apply for funding, which the council will consider and award, to deliver carbon reduction and ecological enhancement projects across the county (as set out in Appendix 1);

- (i) That delegated authority is given to Interim Director for Economy & Place in conjunction with Cabinet Member Economy and Environment and Section 151 Officer to draw down the full value of the climate reserve in year and to take all operational decision to deliver the above recommendations; and
- (j) That Cabinet receives an annual report and project plan as part of a decision to draw down the following year's climate reserve.

The meeting ended at 4.47 pm

Chairperson

PUBLIC QUESTIONS TO CABINET - 29 JULY 2021

Question 1

From: M Burns, Hereford

To: Cabinet member, infrastructure and transport

If the plan for an urban wetland park, (from a consortium led by Herefordshire Wildlife Trust) on the former Essex Arms site by the City Link Road is approved, will the aim to include a pedestrian/cycleway across the park to link the station transport hub and central Hereford and NMITE also be welcomed?

Response

Thank you for your question. Yes, the ambition would be to provide high quality walking and cycling routes whenever possible and although there are no detailed plans for the area you refer to yet, the direction would be to designers to provide such a link here. That link could then join up with the shared footway / cycleway that runs along the City Link Road to the train station.

Question 2

From: A Bridges, Hereford

To: Cabinet member, finance, corporate services and planning

Given the improvements to governance and oversight of capital projects agreed with Audit & Governance by the then Chief Executive back in January 2018, were the then Leader of the Council (Cllr Lester) and the Cabinet Member for Infrastructure (Cllr Price) made aware of the acquisition overspend and financial risk mounting on the City Link Road project?

Response

The cabinet member decision in November 2017 set out the HCCTP cost increases and how these were proposed to be funded utilising the majority of the risk and inflation contingency allocations with in the overall HCCTP – which included all the LEP-funded active travel and public realm projects.

Whilst land costs have increased since that time the detail of increased costs set out in that 2017 cabinet member report were based on the project position and information at that time and were set out in detail in the key considerations and financial implications section of that report.

COUNCILLOR QUESTIONS TO CABINET - 29 JULY 2021

Question 1

From: Councillor Graham Andrews, Kings Acre Ward

To: Cabinet member, commissioning, procurement and assets Cabinet member, finance, corporate services and planning

The recent weeks has highlighted the large variances in project management control that has been completed on significant high profile projects, that have been late on delivery and over budget.

I see new Senior Project Managers are now in place, however will HC continue to outsource projects to provider such as BBLP who appear have a poor delivery record HC,or will HC engage their own Project Managers for all future projects, where control is more accountable?

Local Project Managers in local projects may provide greater results

Response

Thank you for your question Cllr Andrews. You are correct to highlight that historical project management failures have been a matter of concern in certain areas of the council and that legacy issues continue to come to light.

Since coming into office we have made it a priority to create a Project Management Office (PMO) and to staff it with professional and experienced project managers and now Delivery Directors to lead on the many important projects in which this council is investing.

Our substantial public realm partnership contract with BBLP has been independently examined. The shortcomings to which you refer stem more from the way the contract has historically been operated.

Item 8 on today's agenda is about learning the lessons from how this contract has previously been managed. The recommendations propose the improvements necessary to the way the council operates this contract in the role of 'Customer' which are necessary to derive the full benefit from this partnership arrangement in future. These new contracting and commissioning posts in the PMO will put the checks and balances in place to create and maintain the constructive tension between supplier and customer that are necessary to deliver and demonstrate future value to our residents.

We shall continue to use the flexibility that a mix of in-house and contracted-in project managers provides in order to manage the fluctuations in work flow on the delivery of large and complex projects. Whether the Project Managers are our own permanent staff or are specialists working with us for short periods of time, you can be assured that the culture of professional project management is now with us and is here to stay at Herefordshire Council.



Environmental Building Design Standards

Meeting: Cabinet

Meeting date: Thursday 16 September 2021

Report by: Cabinet member housing, regulatory services, and community

safety;

Classification

Open

Decision type

Non-key

Wards affected

(All Wards);

Purpose

This paper seeks agreement to approve the output of the proposed environmental building design standards which will set the standard for future developments and retrofit of housing schemes across the county. At Cabinet on 26 November 2020 the decision was taken on how the council would progress the delivery of net carbon zero affordable housing across the county over the coming years.

Cabinet also approved the appointment of an independent expert to advise on building housing to maximise the environmental benefits to meet the council's climate emergency responsibilities.

Recommendation(s)

That:

- a) The Herefordshire Future Homes report be approved; and
- b) The recommendations in the report are adopted as the recognised standards for future housing developments and retrofit work undertaken by the council.

Alternative options

1. The council could choose not to define future environmental building design standards for housing delivered by the council in the county and allow the current standards to remain. However, the council has declared a climate emergency, recognising the severe

impacts of climate change and the need for urgent action. The proposal for the council to advance housing and have at least an element of control over design helps deliver the council's environmental policy commitments and aligns to the success measures in the County Plan so therefore this option was rejected.

Key considerations

- 2. The council commissioned Zero Carbon House to create a proposal and advise on standards for building housing to maximise the environmental benefits to meet the council's climate emergency responsibilities. The output of that work is summarised in Appendix 1.
- 3. The report titled, Herefordshire Future Homes (HFH), aims to set standards for net zero carbon homes developed by the council, and its partners across the county. It is aimed at all stakeholders involved in housing.
- 4. By embracing these principles in the HFH, the aim is to drive net zero carbon development in the region, create new jobs and skills, and support the local economy. Building homes for those who need them will enable communities to flourish for years to come. It is important that existing homes are not left behind, and are upgraded and properly insulated to make them fit for the future too.
- 5. Working alongside other council policies, such as the forthcoming Environmental Building Standards Supplementary Planning Document (SPD), these standards should raise expectations and inspire the council and others to provide the higher quality greener homes needed.
- 6. The proposed standards will aim to increase local resilience, by reducing energy supply needs, and reducing stress on the local electrical grid, both through lower energy demand and through smart grid renewables and or on-site storage.
- 7. It is accepted that Passivhaus is more expensive that traditional forms of construction, and therefore each site will require a viability assessment to verify economic deliverability. If commercial viability cannot be achieved alternative options will be considered.

Community impact

- 8. The County Plan aims to shape the future of Herefordshire and encourage and strengthen communities whilst creating a thriving local economy and protecting and enhancing the environment to ensure Herefordshire remains a great place to live, visit, work, learn and do business. Taking forward the proposed standards would support those strands being achieved.
- 9. The council recognises that healthy, connected and vibrant ecosystems strongly support the local economy, improve health and wellbeing and make the County an attractive place to live and to visit. It is vital that we protect and enhance this environment while stewarding it for future generations. This proposal aims to support that aspiration.

Environmental Impact

- 10. The proposal for the council to advance housing building standards and have control over design helps deliver the council's environmental policy commitments and aligns to the following success measures in the County Plan:
 - Increase flood resilience and reduce levels of phosphate pollution in the County's rivers by ensuring that new developments take into account opportunities to minimise the impact on the environment including, where appropriate, through grey water capture and other methods.
 - Reduce the council's carbon emissions seeking high levels of sustainability and energy efficiency in the construction and operating costs of new homes delivered.
 - Work in partnership with others to reduce County carbon emissions working with partners to minimise our carbon footprint in terms of methods of construction and in seeking the use of local materials and labour wherever possible.
 - Improve the air quality within Herefordshire supporting the development, where appropriate, of car free schemes in new developments and making provision for safe cycling and walking spaces.
 - Improve residents' access to green space in Herefordshire ensuring new developments make appropriate provision for green space and the use of appropriate, indigenous planting.
 - Improve energy efficiency of homes and build standards for new housing good design and high levels of energy efficiency in council-owned or influenced developments will provide a blueprint principle to other developers in Herefordshire.
 - Increase the number of short distance trips being undertaken by sustainable modes of travel – walking, cycling, and public transport – promoting access to sustainable modes of transport in the master-planning of larger scale developments.
- 11. The council provides and purchases a wide range of services for the people of Herefordshire. Together with partner organisations in the private, public and voluntary sectors we share a strong commitment to improving our environmental sustainability, achieving carbon neutrality and to protect and enhance Herefordshire's outstanding natural environment

Equality duty

12. Under section 149 of the Equality Act 2010, the 'general duty' on public authorities is set out as follows:

A public authority must, in the exercise of its functions, have due regard to the need to -

- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 13. Consideration will be given to the types and standard of accommodation developed taking a "fabric first" approach to building design, maximising the performance of the components and materials. Taking this approach can minimise the need for energy consumption so will be cost beneficial to the occupant, demonstrating the council's commitment to equality and their pro-active approach to ensuring the right properties are available in the right location and built to a high specification to meet the their needs.

Resource implications

- 14. The adoption of the new standards may have implications in terms of viability and deliverability of individual sites and that the resource implications of this will be reflected in the decision reports for individual developments.
- 15. There are no further financial implications from this report other than the agreed spend already agreed by Cabinet on 26 November 2020 to appoint an independent expert to advise on building housing to maximise the environmental benefits to meet the council's climate emergency responsibilities.

Legal implications

16. There are no legal implications arising from the council choosing to adopt the recommendations in the HFH report to inform future housing developments undertaken by the council and council commissioned retrofit work to housing in the county.

Risk management

17. The key risks associated with the options outlined in the paper are as follows:

•	• •
Risk / opportunity	Mitigation
The council's wider sustainability objectives are not adequately incorporated in the proposal	The existing housing decisions already embeds the wider sustainability objectives and forms the starting point to develop any potential sites
The proposal does not incorporate proposed legislation changes and will become undeliverable.	The proposal has considered current and future legislation requirements including the revised minimum standards set to be introduced in 2025.
The proposal only considers new built developments.	The proposal has also included suggested approach for retrofit of existing properties to ensure they benefit from the initiative.
There is a risk of lower housing delivery rates due to increased cost of Passivhaus.	Use Passivhaus in conjunction with other forms of construction. Reduce S106 contributions to pay for Passivhaus additional construction costs.

16. Risks are managed according to the council's risk management framework, aligned with corporate risk strategy and recorded on a service risk register, being escalated to the directorate or corporate risk register according to the significance of the risk.

Consultees

- 17. Consultations have taken place with the Cabinet Member for Housing, Regulatory Services and Community Safety; and the Cabinet Member for Environment, Economy and Skills.
- 18. This paper and the recommendations contained within it incorporate comments received during the above consultations

Appendices

Appendix 1 – Herefordshire Future Homes (net zero housing standard)

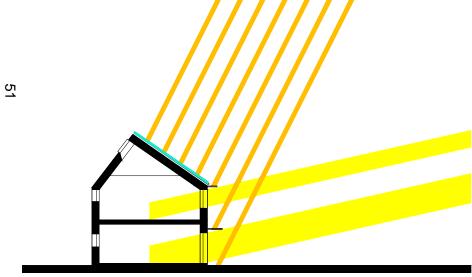
Background papers

None identified

Please include a glossary of terms, abbreviations and acronyms used in this report.



HEREFORDSHIRE FUTURE HOMES



Net zero carbon affordable housing standard

DRAFT

September 2021

HEREFORDSHIRE FUTURE HOMES CONTENTS

- 1. Preface
- 2. Executive Summary
- 3. Introduction
- 4. Challenge
- 5. Benefits & analysis
- 6. Recommendations
- 7. One Planet Living

Inset: One Planet Living Action Plan

8. Passivhaus Plus

Inset: Principles of Passivhaus construction

- 9. Renewable energy
- 10.Embodied carbon
- 11.Retrofit offsets
- 12.Excellence

Inset: Passivhaus in practice - Exeter's experience

- 13.Review
- 14.Glossary
- 15.References & credits

Clayfield Suffolk, affordable & sustainable housing, Mikhail Riches architects.



1. PREFACE

In March 2019 Herefordshire Council unanimously declared a climate emergency, recognising the severe impacts of climate change and the need for urgent action. In December 2020 our Coalition administration made a major commitment to tackle the housing shortage by building affordable net-zero housing for local people.

This document outlines the Herefordshire Future Homes standards we will use when building these home. It represents a key step towards the Council's 2030 carbon reduction commitment, and a key step towards better housing for all.

Herefordshire Future Homes will be part of the solution to the climate crisis – reducing greenhouse gas emissions to net zero.

The standards include a retrofit element which will help improve the quality of existing housing, too.

Herefordshire Future Homes will be healthy for residents – eliminating cold, mould and damp. We will build warm and cosy homes, in healthy neighbourhoods with space for kids to play, space for nature, and provision of sustainable transport options.

Herefordshire Future Homes will minimise energy use and fuel bills – tackling fuel poverty and making these homes truly affordable to live in. A small additional upfront investment will pay for itself through lower long-term costs.

These standards represent a triple win – for local people, for our economy, and for our planet.

We all know that we need to do housing differently. The housing crisis requires us to invest to ensure that everyone in our community has a warm and healthy home. The climate crisis



requires us to take action now to help cut emissions to net zero by 2030.

Put simply, we need to build houses today that are fit for future generations.

We hope that this Herefordshire Future Homes standard will inform and inspire better house-building standards across the whole county, creating a positive legacy for the future.



Councillor Ange Tyler Councillor
Herefordshire Council cabinet members



Councillor Ellie Chowns

2. EXECUTIVE SUMMARY

<u>Herefordshire Future Homes</u> (HFH) sets recommended standards for the Council's net zero homes. 49% of UK CO_2 comes from buildings. Like Herefordshire, other progressive authorities want to "Build Net Zero Now". This will be five times cheaper than costly future upgrades.

90% savings in running costs, and 92% whole-life CO₂ savings are expected over 60 years. The capital cost uplift should be small, and falling, as measures become mainstream. Homes will be healthier, have higher values, and lower maintenance costs.

HFH includes broad sustainable criteria. A One Planet Living framework will cover health, local economy, community, land/nature, water, food, travel, building materials, waste and zero carbon. Ambitious standards should be agreed for each site, with one Herefordshire apple tree planted for each home. Metrics cover non-toxic building materials, low water-use fittings and careful design to avoid summer overheating.

Recommendations are given for a 60-year Whole-life carbon and cost report, to demonstrate capital cost, energy use, and whole-life financial and carbon savings. It will be reviewed against actual costs and performance. Residents' training and post-occupancy monitoring is required to 5 years after completion.

Certified Passivhaus Plus standard is adopted for HFH. This will ensure highly energy efficient homes, which will have integrated PV solar electric panels - or other on-site renewable energy - and storage. The homes will therefore generate approximately as much renewable energy as they use.

Low embodied-carbon construction is recommended, aligned with LETI and RIBA 2030 targets. To achieve true net zero,

residual embodied carbon emissions from the new homes will be offset, through a parallel programme of retrofitting local existing homes to Passivhaus EnerPHit or AECB standards.

Locally-distinctive excellent design quality is essential. This includes accessibility and Lifetime homes requirements, "tenure-blind" development, encouragement for 20mph pedestrian-priority speed limits / homezones, assessment against <u>Building for a Healthy Life</u> toolkit, and National space standards

HFH works alongside the National Model Design Code (NMDC) and Herefordshire's Environmental Building Standards SPD.

Herefordshire Future Homes will be reviewed annually, without diluting its net zero carbon aims, to align with emerging research or legislation where appropriate.

The document is illustrated with best practice examples.

Accodia, Fielden Clegg Bradley Studios architects.



3. INTRODUCTION

<u>Herefordshire Future Homes</u> (HFH) sets standards for net zero homes developed by the Council and its partners across the county. It is aimed at all stakeholders involved in housing.

Detailed recommendations are given for Herefordshire's new - and existing - homes and communities. By embracing these principles, we can **drive net zero carbon development** in the region, create new jobs and skills, and support the local economy. Building **affordable homes** for those who need them will enable our communities to flourish for years to come. It is important that **existing homes are not left behind**, and are upgraded and properly insulated to make them fit for the future too.

Examples of best practice net zero carbon and Passivhaus schemes are illustrated throughout this document.

The standard is about much more than just energy use: it is a strong and wide-ranging design/sustainability/community framework to support this progressive and collaborative programme. Working alongside other Council policies, such as Herefordshire's Environmental Building Standards Supplementary Planning Document (SPD), the emerging Herefordshire Design Code and the National Model Design Code (NMDC), these standards should raise expectations and inspire the Council and others to provide the higher quality greener homes needed.

Top left: Parklands, N.Somerset, 64 zero carbon homes, LA-AC. Centre & right: Callaughtons Ash, Shropshire, Connexus Passivhaus, Architype. Bottom: Forthcoming Herefordshire SPD;

Eco-Vicarages, Passivhaus & zero carbon, Associated Architects.









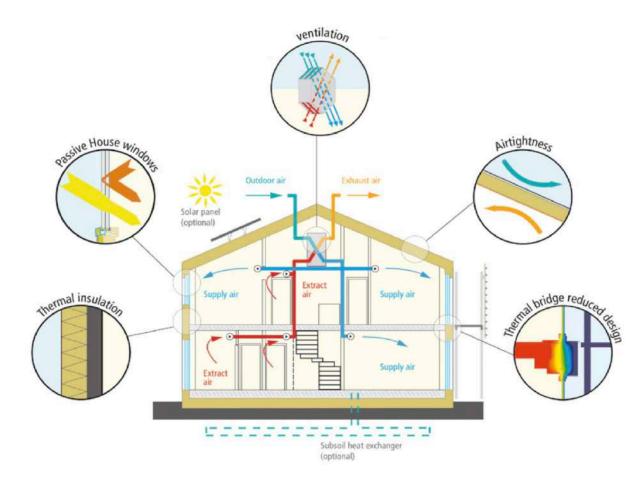


Herefordshire Future Homes will have:

- **Healthy and comfortable** conditions, whatever the weather.
- Excellent thermal insulation, so hardly any heating is required, and heating costs reduced by around 90%, eradicating fuel poverty.
- Carefully designed triple-glazed windows, benefitting from useful winter sunshine (solar heat gains), while avoiding summer overheating.
- No gas boilers (which use polluting fossil fuels), but electric heat pumps for heating and hot water, which are highly efficient and safer.
- **Solar panels**, generating green electricity to balance the home's needs.
- Heat recovery ventilation (MVHR), avoiding cold window draughts in winter, saving energy and filtering the incoming air, which helps people with asthma, hay fever etc.
 - 92% saving in carbon emissions, compared with Building Regulations (see graph in section 5 below).

These are a combination of certified **Passivhaus Plus** performance and additional elements.

Similar standards have been adopted in other local authorities, and have been warmly welcomed by residents; Norwich City Council's Andrew Turnbull maintains: "our greatest advocates are our tenants" (Passivhaus Trust, 2019b). Passivhaus Plus details are explained in section 5 below, and full technical details are specified in Passive House Institute (2016) <u>Criteria for the Passive House, EnerPHit and PHI Low Energy Building Standard</u>.



PRELIMINARY GRAPHIC
TO EXPLAIN PASSIVHAUS / NET ZERO HOUSE

4. CHALLENGE

Buildings are responsible for 49% of UK CO₂e emissions.

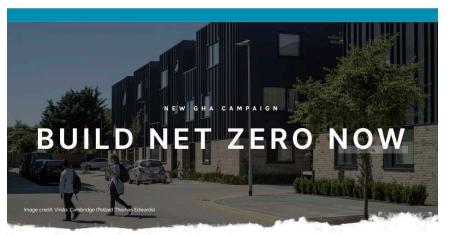
Following Herefordshire and other local authorities' **climate emergency declarations**, in April 2021 UK government committed to cut carbon emissions by 78% by 2035, a stepping stone towards 100% cut (zero carbon) by 2050.

However, the statutory Climate Change Committee have repeatedly made clear that national policies for new homes are not yet driving change at the required pace (CCC, 2019). The United Nations, IPCC, and other commentators consider 2050 targets will be too late to prevent irreversible climate change, missing the Paris target to limit global warming to 1.5degC (UNCC, 2021), (IPCC, 2021).

Homes account for **over 26%** of Herefordshire/UK carbon emissions, and have increased by more than a quarter over the past twelve years (RIBA, 2020).

Herefordshire is not alone in wanting better standards. The Good Homes Alliance Vanguard Network unites twenty local authorities. GHA's initiative is to "Build Net Zero Now", rather than waiting for 2025 or 2030 (GHA, 2020a).

For a new home, the embodied carbon emissions from construction can be as much as half the carbon footprint measured over its 60-year design life. There is clear evidence that new homes built merely to minimum Building Regulations standards - ie not built to zero carbon standards - would be five times more expensive to retrofit a decade later (Currie & Brown, 2019). Construction is clearly the best point at which to make a home both energy efficient and low carbon.











Government sets out targets for new Future Homes Standard

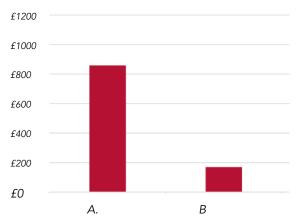
20 JANUARY 2021 - BY RICHARD WAIT



5. BENEFITS & ANALYSIS

Some benefits of <u>Herefordshire Future Homes</u> (HFH) net zero standards are outlined below.

- The **capital cost** uplift should be modest. Although actual building costs will depend on local factors, Passivhaus Trust show +8% on construction costs, expected to fall to +4% as ultra-high energy standards are adopted at scale. The additional costs of Passivhaus or equal standards with airsource heat pumps (ASHP) are approximately +5% on total build costs, excluding PV renewables (Passivhaus Trust, 2019a), (Currie & Brown, 2019).
- Whole-life cost analysis shows Passivhaus gives significant whole-life savings (£5,000+) against standard construction; across different fuels, construction types, and over 30/60/100 year periods (Price and Brown, 2014).
- Future-proofed construction requires less ongoing capital investment. The Government Climate Change Committee analysis shows it is **five times cheaper** to build to net zero standards now, avoiding costly and disruptive future upgrades (CCC, 2019).
- Net zero homes have higher market values, giving benefits to the Council (rent and sale capital) and/or to the resident (shared ownership value etc), and increasing as net zero finance advances.
- Depending on tenure, service charging and management, a premium could be charged on rent or a discount given to the occupants, offering financial benefits to landlords and residents.



90% SAVING ANNUAL RUNNING COST

Predicted total operational running cost (annual average 2020-2080) for an optimised house form. Includes heating, hot water & appliances, repairs, maintenance and replacement (Currie & Brown, 2021).

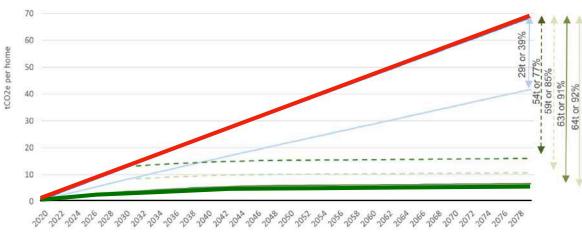
A- Building Regulations insulation standard with gas boiler.

B- Passivhaus standard with heat pump and PV.

Bournville Village Trust eco-homes Homezone, Associated Architects.



- Triple-glazing, airtightness and whole-house ventilation (Mechanical Ventilation with Heat Recovery or MVHR) lead to fewer resident noise complaints and fewer site sensitivities (eg noisy roads).
- MVHR gives excellent indoor air quality, helping people with allergies and respiratory diseases. Warm homes help to improve residents' health (Passivhaus Trust, 2016). The impacts of energy-inefficient housing cost the NHS £2.5 billion/year, including increased asthma, bronchitis, and mental health problems (LGA, 2019).
- Heating demand can be reduced by 90%, with lower running costs, reduced carbon emissions and air pollution, warmer homes, and reduced fuel poverty. Optimised low energy designs eg simple-form terraces rather than bungalows also give financial efficiencies in land use and construction.
- The performance gap difference between designed and built energy efficiency - shows typical homes can use 40-60% more energy than expected, partly due to lack of site quality control. By contrast, certified Passivhaus homes on average perform as designed (Mitchell and Natarajan, 2020).
- The proposals give **92% whole-life carbon savings** from Building Regulations (see graph opposite).
- **Net zero homes** help to meet both national and local carbon reduction targets and legal obligations now and in the future.



92% CARBON SAVINGS

Predicted operational carbon savings from a semi-detached house built to different insulation standards and with different heating systems.

Cumulative operational carbon savings over 60 years.

- Red line = Building Regulations Part L, gas-fired boiler.
- Green line = HFH standard: Passivhaus 15kWh/sqm.yr heating with air-source heat pump. 92% or 64 tonnes CO₂e saving per home over 60 years. (Currie & Brown, 2019).





Poor construction quality - like gaps in insulation as shown - can lead to a "performance gap" in operation. This is not an issue in completed Passivhaus projects.

- Poorly-designed houses can overheat, requiring costly and energy-intensive air conditioning, whereas HFH standard should avoid these future costs and carbon emissions.
- The proposed standards **increase local resilience**, by reducing energy supply needs, and reducing stress on the local electrical grid, both through lower energy demand and through smart grid renewables/on-site storage.
- The present skills gap in housing design and retrofit will be closed: as construction standards and new technologies are defined, these can be planned for and met locally, lifting skills and quality for the county.
- Each site will have a <u>One Planet Living</u> plan covering many broader factors, to help build sustainable communities and reduce carbon, avoiding tick-box approaches.





West Midland Combined Authority, Zero Carbon Homes Charter.

York City Council, Passivhaus development, Mikhail Riches architects.



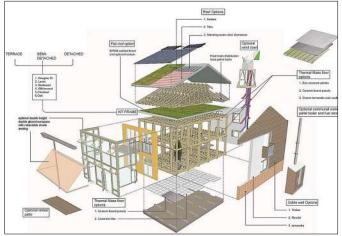
- Retrofit standards are integrated, to target Herefordshire's least efficient existing homes and give large carbon savings.
 EnerPHit and AECB retrofit standards optimise financial and energy design for existing homes, giving both maintenance/ resident benefits and real carbon/fuel savings.
- HFH standards can be applied to third-party sites, even where planning permission may have been granted already. A **pragmatic but ambitious** approach will ensure long-term savings in energy, carbon, maintenance and future.
- Education and training of residents will help them to understand, manage and reduce their energy use effectively.
 This, allied to post-occupancy monitoring, will demonstrate quantified positive results.
- Council leadership will help to raise building standards of private sector and other local housing providers. Clear, consistent and ambitious HFH building standards from the outset will optimise building efficiency, minimise design and construction costs, and give confidence for local industry capacity-building.



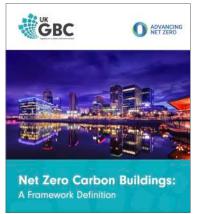
The greenest building is the one that already exists

#RetroFirst













Top: Manchester People Powered Retrofit scheme led by Urbed; The Architects' Journal RetroFirst campaign;

Centre: Rural-Zed zero carbon house, Bill Dunster Architects, exploded drawing & photograph;

Bottom: UK Green Buildings Council Net Zero Carbon Buildings and The New Homes Policy Playbook; Springfield Meadows, Oxford, Greencore

ANALYSIS

Some of the different building standards evaluated during development of HFH are below.

- UK Buildings Regulations (SAP).
- UK Future Homes Standard (consultation 2023, planned implementation 2025) (MHCLG, 2021).
- UK Green Buildings Council Net zero carbon buildings: a framework definition (UKBBC, 2019).
- Good Homes Alliance Build Net Zero Now (GHA, 2020a).
- RIBA 2030 Climate Challenge standard* (RIBA, 2021a).
- LETI <u>Climate Emergency Design Guide</u> and <u>Embodied Energy</u> Primer (LETI, 2020a and 2020b).
- Energiesprong retrofit standard (Energiesprong, 2021).
- AECB Building and retrofit standards (AECB, 2017 and 2021).
- Passivhaus standards: Passivhaus LEB, Classic, Plus and Premium standards (Passive House Institute, 2016).
 - BSRIA Life Cycle Costings (BSRIA, 2016).
 - Whole Life Carbon Network <u>Improving Consistency in Whole Life Carbon Assessment and Reporting</u> (WLCN, 2021).
 - RICS Whole life carbon assessment for the built environment (RICS, 2017).

Comparative analysis of selected performance criteria and cost is shown in the graphs opposite: HFH is Passivhaus Plus standard.

* This is a reporting standard against design targets set out for 2025 and 2030. A number of its points are covered by <u>Herefordshire Future Homes</u> standards. Its metrics may be incorporated into future UK standards, and it is expected that all architects for Herefordshire Council's homes will have joined the scheme. Design teams will therefore report against RIBA 2030 Carbon Challenge standards as part of the architects' services, and where possible all designs should aim to meet RIBA 2030 levels. See section 5 below for discussion of operational energy standards.

ENERGY

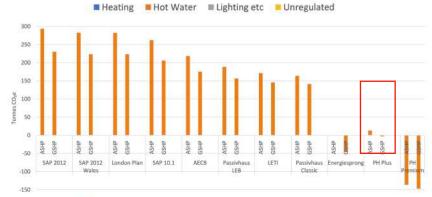
Analysis of selected comparative energy use for different building standards:
Total energy use/sqm of house floor area, including performance gap (GHA, 2020b).

140

120 Jeg 100 Zew 2012 CAR 2012 London Plan SAR 10.1 Practice Phone Recta Passishase Lie Passishase Classic Par Phys Practicum Passishase Lie Passishase Classic Par Phys Passishase Classic Par Ph

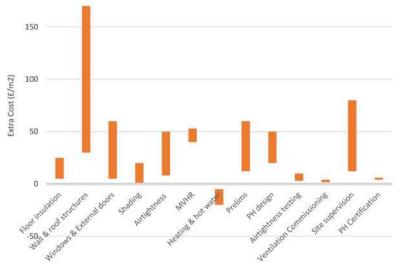
CARBON

Analysis of selected comparative carbon emissions, tonnes total CO₂e emissions over 30 years, for different building standards, with assumed heating by air source heat pump (ASHP) or ground source heat pump (GSHP) (GHA, 2020b).



COST

Analysis of selected comparative capital cost variance (£/sqm) from current 2013 Building Regulations for Passivhaus standard, excluding heat-pumps and PV (GHA, 2020b).



6. RECOMMENDATIONS

For ease of reference, the recommendations of <u>Herefordshire</u> <u>Future Homes</u> (HFH) are summarised below:

- A. All sites should have a **One Planet Living Action Plan** describing how exemplary environmental practice is included across ten principles, including ecology, water, green travel, and zero carbon. One **Herefordshire apple tree** will be planted for each home (see 7.6 below). Materials should be low impact, low VOC < 0.3 mg/m3 and low formaldehyde < 0.1 mg/m3 (see 7.8). The Action Plan will be specific for each site, and peer-reviewed by Bioregional (see 7 below).
- B. Water usage of <75 litres/person/day (see 7.5 below).
- C. A Whole-life carbon and cost report should compare 60year predictions for all capital, maintenance, running and other financial costs, and carbon emissions, for the proposed development, and for a 2019 Building Regulations compliant scheme (WLCN, 2021), (see 7.10).
- D. All homes should be certified to **Passivhaus Plus** standard (see 8), with predicted total energy use <45kWh/sqm.yr. Heat-pumps or other low carbon heating should be used, with no gas boilers, gas cookers or other fossil fuels.
- E. All homes should have on-site **renewable energy** (eg PV) to Passivhaus Plus standard, and a renewables strategy including storage and management (see 9).
- F. All sites should have **embodied carbon** <625 kgCO₂e/sqm for RICS whole life carbon stages A-C. Sites of five or more houses will be supported by detailed embodied carbon calculations (see 10).

- G. To achieve true net zero, all residual embodied carbon emissions should be offset through a parallel programme of home retrofits, certified to Passivhaus EnerPHit or AECB Carbonlite Standards, or other agreed offsets (see 11).
- H. The highest award-winning **design standards** are required, including pedestrian/cycle priority 20mph/5mph speed limits (see 7.7). <u>Building for a Healthy Life</u> (Birkbeck et al, 2020) standard will be used for assessment (see 12).
- An agreed proportion of homes for each site should be to accessible standards for wheelchair users as Building Regulations document M categories 2 & 3, and Lifetime Homes standard (see 12).
- J. All developments should be designed as "tenure blind" and to National Space Standards (see 12).



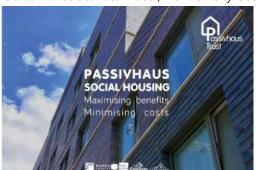
Parc Hadau Gardens, 35 zero carbon homes, Rhydyfron, Wales Serio architects



- K. Overheating: To ensure homes are resilient to future climate change, and will stay comfortable even in the hotter summers predicted in the future without requiring expensive and energy-intensive air conditioning, overheating will be assessed. All developments of five homes or more should pass CIBSE TM59 criteria, using 2080 predicted weather files and without mechanical cooling. For smaller developments, GHA's overheating tool should be used (GHA, 2019). This is likely to require external summer shading to south-facing windows. For all sites, the Mechanical Ventilation Heat Recovery (MVHR) system should be designed to optimise peak summer cooling. Secure night-time low level and high level openings (eg rooflights) should be provided to give excellent natural ventilation and occupant control.
- L. **Resident induction:** To help occupants benefit most effectively from living in zero carbon housing, regular induction, training and problem-solving sessions should be planned with residents over the first year. This should cover matters such MVHR filters, which could be changed by the residents for many social-rent tenants, and in all other tenures.
- M. **Post-occupancy monitoring** should be carried out on at least 50% of the homes at 1, 2 and 5 years from completion, to ensure proper performance. Energy use, carbon emissions, running, maintenance and other costs, and occupants' satisfaction should be monitored, completing all "essential activities" in sections 3, 4, 5, 8 & 9 of <u>RIBA Post-Occupancy Primer</u> (RIBA, 2016). Note the WLC report (see 7.10 below) will be reviewed against actual costs and performance at 2 years and 5 years post-completion.



Goldsmith Street Passivhaus, Norwich City Council, Mik



Mikhail Riches architects

Herefordshire Future Homes HFH

7. ONE PLANET LIVING

If everyone consumed the natural resources of an average UK citizen, we would need three planets to support us. One Planet Living is a simple framework designed to help people live well with the **resources of the one planet** we have. It has been used over twenty years in both public and private sector housing and elsewhere, and is aligned with the UN Sustainable Development Goals (UNDESA, 2015).

The climate/ecological emergency is understood in very different ways at present. A narrative of **environmental excellence**/ net zero carbon is needed to connect with different audiences: communities in Hereford, market towns and rural areas may have different priorities. Communication is a two-way process of explaining, listening, and responding to local needs. Narrow technical standards alone are not enough if they don't connect with reality of daily life. The One Planet Living framework is not a prescribed standard, certification or accreditation system - there is no pass or fail - but it makes it **easy to "do the right thing"**, requires ambitious standards, and will be peer-reviewed by Bioregional. One Planet Living is:

- grounded in science.
- **easy to understand**, with a common language that works for both construction and operation, and with other stakeholders.
- proven to increase satisfaction and reduce costs.
- flexible, with long-term sustainability goals, designed to respond to the complex and ever-changing world.
- a tool to reach **hearts as well as minds** the One Planet Living principles provide a simple way to engage and inspire diverse stakeholders.

The ten One Planet Living principles, which will be developed into a One Planet Living Action Plan for each site, are outlined below (Bioregional, 2011).

•	Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
**	Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
223	Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
918	Land and nature	Protecting and restoring land for the benefit of people and wildlife
•	Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
ő	Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Ø₽	Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
•	Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
O	Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
本	Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables

7.1 HEALTH AND HAPPINESS

Active lives will be encouraged to promote good health and wellbeing, with specific measures for each site. Good design, daylighting, etc can help with this in many ways. The aim, recognised more than ever following Covid, is for high levels of physical, social, mental and emotional **health and wellbeing**. This can be supported with Herefordshire's health and wellbeing strategy.

7.2 EQUITY AND THE LOCAL/RURAL ECONOMY

The new homes and their occupants will help to boost the **local rural economy**. Vibrant and resilient neighbourhoods have a significant proportion of their money spent locally, fairly and without exploitation.

Herefordshire's strong culture of local craftspeople can be engaged, raising the quality of the homes and increasing a sense of **local pride.** Active engagement with local construction training providers is encouraged to improve skill levels in sustainable design, construction and retrofit.

Equity also means those living in **existing homes are not left behind** - see section 11 below - and every development will be designed as "tenure blind" - see 12 below.

7.3 CULTURE AND COMMUNITY

Each community/site should be explored to nurture **local identity, history and heritage**. The new developments should reinforce this (see 12 below) and promote a culture of real sustainable living, developing Herefordshire's environmental

traditions to a **new level of local community** engagement.

Encouraging sustainable homes for all, Herefordshire welcomes contact from self-build and community-build individuals or groups who share <u>Herefordshire Future Homes</u>' net zero values.

7.4 LAND AND NATURE

Site-specific opportunities should be explored to protect and restore land and water systems for people and wildlife. The One Planet Living Action Plan will collaborate on ideas to increase **local biodiversity**, and maximise carbon sequestration in the soil, agriculture, and forestry. People can be helped to recognise the value of nature, including its value to human health. Herefordshire Wildlife Trust and others can help and support.



Mellor Primary School, Wildlife habitats designed with the children, Sarah Wigglesworth Architects

7.5 SUSTAINABLE WATER

Efficient water use should be promoted on every site, protecting local water resources and **reducing flooding and drought.** Very low water-use appliances will be carefully specified for all internal fittings, possible grey water recycling, rainwater harvesting and garden water butts. Water usage should be <75 litres/person/day as CIBSE Guide G standards. Permeable surfaces, green roofs and sustainable drainage should be used where appropriate to reduce demand and manage water run-off. Working with local communities and planning policies, this will contribute to sustainable water management and reduce flood risks in local areas (Herefordshire Council, 2015).

7.6 LOCAL AND SUSTAINABLE FOOD

Herefordshire is well known for its agriculture, apple and pear orchards, food, cider, etc. It will come naturally to promote sustainable, humane farming and healthy diets, high in local seasonal organic food. Opportunities for **communal gardens** and food growing such as **urban orchards** and allotments should be maximised, with one **Herefordshire apple tree** to be planted for each home. The One Planet Living plan should also reduce or eliminate waste for each site, supported by the sustainable food strategy in Herefordshire. (Brightspace Foundation, 2010).

7.7 TRAVEL AND TRANSPORT

A green travel plan will be produced for each site. The need to travel can be reduced, **encouraging walking, cycling** and low-carbon transport, while recognising rural Herefordshire life may require some car use. With the Council's planning and transport departments, appropriate transport/walking/cycling/parking facilities and standards will be developed for each site, recognising future trends, and noting some sites have better access to local facilities and sustainable transport choices. **20mph or "Homezone" 5mph** traffic speeds are encouraged wherever possible to prioritise and encourage walking, cycling, safe children's play and socialising.

Good design can minimise unnecessary car journeys. Well-integrated easy-access **cycle storage** will be planned throughout, typically two spaces per 2-bed home, with more for larger homes.

The transition, from petrol to electric car and cycle use, will be supported with **electric vehicle charging points** for all parking - see section 9 below. Sustainable transport choices will be encouraged with site facilities and support for **electric car clubs**, car-sharing, and public transport.











7.8 MATERIALS AND PRODUCTS

Materials from **sustainable sources** can help people to reduce consumption. Products in the home can be non-toxic to humans or wildlife at every stage of their lifecycle, from raw material through to manufacturing, use and end-of-life. The same is true for building materials. Very low embodied carbon materials for the new homes and infrastructure is included in section 7 below. Building materials will also be PVC-free and generally have very low environmental impact, low VOC, and zero or low formaldehyde. Total VOCs should be < 0.3 mg/m3 as Approved Document F; Formaldehyde < 0.1 mg/m3 as BREEAM.

7.9 ZERO WASTE

Reducing consumption, reusing and recycling will help drive towards **zero waste and zero pollution**, aiming for zero waste to landfill. UK consumes 600 million tonnes of products a year, and generates 200 million tonnes of waste, over 60% from the construction industry. (DEFRA, 2021).

A site waste management plan (SWMP) should be developed to minimise this for each construction site, together with a plan for helping residents to reduce and manage waste, which might include a local community repair cafe, tool library, etc.

7.10 ZERO CARBON

This HFH standard looks at two zero carbon components: operational carbon and embodied carbon - together making up **true whole-life carbon** homes and communities.

Operational carbon is the footprint of **energy used in running** a home: for heating, hot water, cooking, lighting, electricity etc.



CITU Leeds, Climate Innovation District, Ollier Smurthwaite architects Springfield Meadows, Oxford, Greencore



In simple terms, a home with net zero operational carbon does not use fossil fuels (ie oil, coal, gas - or electricity generated from them), and its energy use is balanced with 100% renewable energy.

Embodied carbon is the **carbon in construction materials**, their transport and installation on site, maintenance and end-of-life recycling or disposal (RICS, 2017).

Taken together, operational carbon and embodied carbon can be expressed as whole life-cycle, or **whole life carbon (WLC)**, measuring the carbon emissions from both the home's construction and use of over its entire life, assumed as 60 years.

A Whole-life carbon and cost sustainability report should be produced at RIBA stage 2, to be reviewed/updated at RIBA stages 3, 4 and 7, using Whole Life Carbon Network

recommended methodology (WLCN, 2021). It should report 60-year figures for all capital, maintenance, running and other financial costs, and carbon emissions, for each proposed development. It should compare these with a 2019 Building Regulations-compliant scheme. The report should demonstrate the capital cost, relative energy use, whole-life financial and carbon savings, etc. It is to be reviewed against actual costs and performance at 2 years and 5 years post-completion.

Reduced operational carbon is described further below in sections 8 and 9, Passivhaus Plus and Renewable Energy. Embodied carbon is described in section 10.



ONE PLANET LIVING ACTION PLAN

A One Planet Living Action Plan will be developed for each site. The document will be co-created by the development partners and invited stakeholders. Building on the excellent work already taking place in the county, it will respond to the opportunities and challenges of One Planet Living outlined in section 7. The Action Plan is a dynamic document to be modified and improved as the world and our knowledge change. It can be monitored, reported and reviewed periodically.

The Action Plan will be published on-line when it goes live, to share experience, learn from each other and crowdsource solutions. The aim is to unlock the collective potential to tackle humanity's greatest challenge - how to live happily and sustainably on our one planet.

One Brighton



Each One Planet Action Plan will contain a comprehensive set of actions, as outlined in section 7 above. The Action Plans will be peer-reviewed, aiming for leadership-recognition by Bioregional.

One Planet Living is a commitment to a journey rather than a tick-box certification system. It's aligned with UN Sustainable Developments Goals (UNDESA, 2015) and targets can be set which are particularly useful and meaningful for the communitty.

But sustainability isn't just about measurement of targets: it's engaging people's hearts and minds. The human element is just as important - local success stories, anecdotes, etc help to communicate progress, inspire others and build sustainable communities.

Two examples of One Planet Living schemes are shown below.

ONE PLANET LIVING ACTION PLAN EXAMPLE 1

One Brighton is a scheme of apartments, community space and a café in central Brighton, giving a greener, healthier lifestyle and radically reducing CO₂ and water consumption.

Bioregional used the ten One Planet Living principles to draw up a sustainability action plan from design and construction into use. The highly insulated, triple-glazed buildings were designed with architects Feilden Clegg Bradley Studios and built by Denne. Electricity is sourced from a green power provider through the development's own energy services company, One Brighton Energy Services (OBES), a not-for-profit company set up to supply 100% renewable energy on an affordable basis to the residents of One Brighton. The company operates and maintains the photovoltaic array and communal energy distribution system.

19

20



ONE PLANET LIVING ACTION PLAN EXAMPLE 2

Springfield Meadows, Oxford is a mixed development of 23 affordable and for-sale homes, built "tenure-blind" to the same high standards throughout.

It's designed to help residents lead happier and healthier lives with a very small carbon footprint, engaging with nature and creating a strong sense of community.

The homes are built using local labour and natural materials with 90% reduction in embodied carbon emissions.

All homes are zero carbon in operation, with solar panels and connection to green power for any surplus demand. A car-club operates with electric vehicles. Residents benefit from large gardens, giving the opportunity to grow their own food, a central green space to enjoy as a community, a wildlife pond, a community orchard, and a herb garden.



Springfield Meadows, Oxford, Greencore.

Left: Net zero carbon homes, powered by renewable PV electric solar panels.

Above: Wildlife pond and planting.

Below: UN Sustainable Development Goals.









































8. PASSIVHAUS PLUS

All homes will be Certified to Passivhaus Plus standard.

Since the UK Code for Sustainable Homes was withdrawn in 2015, a confusion of environmental building standards have evolved. BREEAM, Passivhaus (three different standards), AECB, UK Green Buildings Council, RIBA 2030 Climate Challenge, LETI (London Energy Transformation Initiative), LEED (Leadership in Energy & Environmental Design, originally a USA standard), and a forthcoming **UK Future Homes Standard** consultation in 2023, ahead of implementation in 2025 (MHCLG, 2021).

Passivhaus is an existing standard, now widely recognised in the UK, which has already been adopted for Council-developed social housing in Exeter, Norwich, York, and elsewhere.

Passivhaus principles are explained below. Passivhaus Plus will verify the home's designed heating needs <15 kWh/sqm.yr, and its total **energy consumption <45 kWh/sqm.yr**. By contrast, current UK Building Regulations cover only part of the energy used. Note LETI and RIBA standards require total energy <35 kWh/sqm.yr. (LETI, 2020a) (RIBA, 2021). Where possible, designs should aim for 35 kWh/sqm.yr, and in all cases achieve Passivhaus Plus standard of <45 kWh/sqm.yr. (See example, 9 below).

Passivhaus has a requirement to limit overheating, but HFH includes a higher standard, see section 6K above.

The Passivhaus Plus standard for <u>Herefordshire Future Homes</u> requires **60kWh/yr.sqm on-site renewable energy**, which could be PV solar electric panels on south-facing roofs (Passive House Institute, 2016) (see 9 below). Full Passivhaus technical details are in Passive House Institute (2016) *Criteria for the Passive House*, *EnerPHit and PHI Low Energy Building Standard* (see References).





Carrowbreck Meadow, Norfolk Passivhaus development, Hamson Barron Smith architects

Hastoe Housing Association, Passivhaus, Ditchingham, Norfolk

7

PRINCIPLES OF PASSIVHAUS CONSTRUCTION

- The first Passivhaus building from 1991 is now **30 years old**. Building scientist Wolfgang Feist investigated why previous low-energy houses hadn't performed as expected, and the lessons learnt evolved into a set of principles for very low energy building design. Passivhaus is a thorough standard, and the science and monitoring of thousands of completed projects **prove that it works**. (Mitchell and Natarajan, 2020)
- 90% less heating is needed than an average house. Typically Passivhaus heating bills may be £100 a year or less. This contrasts with the £700 to over £3000 energy bills for UK homes. Heating is measured at the design stage by PassivHaus Planning Package software (PHPP) to verify the heating need: Passivhaus requires <15kWh/m².yr. Passivhaus Plus requires the home's total energy use to be <45kWh/sqm.yr, including heating, hot water, cooking, electrical appliances and lighting.
- Super-insulation is required to achieve this very low heat loss highly insulated walls, roofs, floors, triple-glazed windows
 (which can also improve sound insulation), and no
 compromises (known as thermal bridges) which could create
 cold spots.
- Airtightness is around 20x better than typical UK homes. At completion, the rate of air leakage from the building is measured (Q50>0.60). This ensures **no cold draughts**, which can radically reduce a home's energy performance.
- Mechanical ventilation with heat recovery (MVHR) provides constant fresh air, while retaining heat inside the house.

- The outgoing air pre-warms the fresh incoming air, reclaiming 80-90% of its heat.
- Minimal heat loss from the home. A compact simple built form, such as a terraced house or flat, has less external surface area, and therefore less heat loss, than for instance a singlestorey detached bungalow.
- Solar orientation. Passivhaus analyses all the home's windows and measures the useful **heat gains from winter sunshine**, which can provide as much as a third of the home's total heating needs. Another third can come from ambient heat gains the energy used in the home for cooking, lighting, hot water, and from the occupants which ends up as "waste" heat. Typically that leaves just a third of the heating to be provided by a small number of radiators or similar.
- The points above apply to all three Passivhaus standards Classic, Plus and Premium which should guarantee minimal
 energy/heating demand. However, the original Passivhaus
 Classic standard does not specify where that energy comes
 from, so fossil fuels could still result in significant carbon
 emissions. The renewable energy required for Passivhaus Plus
 fills this gap.

22 Herefordshire Future Homes **HFH**

9. RENEWABLE ENERGY

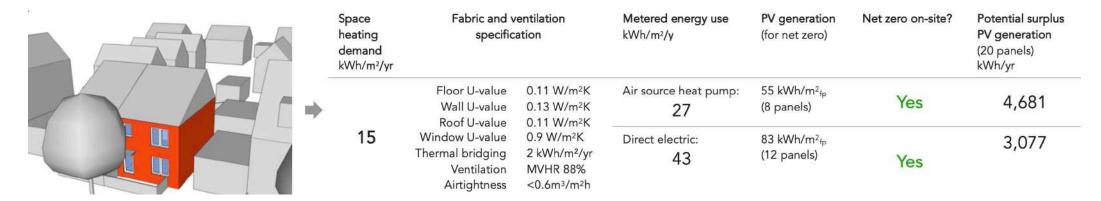
<u>Herefordshire Future Homes</u> should use no fossil fuels, but 100% renewable zero carbon heat & power.

The two components of operational carbon and embodied carbon were outlined at 7.10 above. 100% of operational carbon should be balanced with renewables, contributing positively to both UK and Herefordshire carbon reduction targets.

All homes should have heat pumps or other low-carbon heating. As outlined in section 8, Passivhaus Plus requires on-site renewable energy, probably PV solar electric panels on southfacing roofs of 60kWh/yr.sqm or other renewables. (Note the sqm area here is the building footprint, not floor area). Although the actual energy used in each house will vary according to the number of its occupants, their lifestyle etc, research shows homes will average net zero operational energy, ie generating roughly

as much energy on site as they use. Connecting to a low carbon heating network (LCHN) may also be cost-effective where the site proximity and scale enable efficient operations, and is encouraged.

Although theoretically net zero could be achieved with an inefficient building powered by PV, this would not be sustainable or replicable generally, and would be wasteful of both natural and financial resources. Herefordshire Future Homes have highly insulated Passivhaus building fabric, sometimes referred to as a "fabric first" approach, and very low energy requirements. Therefore it is sensible to look at meeting their needs with renewable energy. Local energy generation and smart grids can have several advantages, including lower electricity transmission losses than the national grid and local resilience.



Optimised house design with simple built form and larger south-facing roof for PV. Space heating demand 15 kWh/sqm.yr, total energy use <45 kWh/sqm.yr, meeting Passivhaus Plus standard. Net zero operational carbon with on-site renewable electricity. Note additional PV panels could generate potential surplus electricity. (CLJSP, 2021)

RENEWABLE ENERGY

PV solar electric panels will be **integrated into the design**, certification, tender and construction process: it will be less expensive to include them from the start than to retrofit post-completion. The renewables could be separately financed and operated or leased by a third-party provider, either independently or as a community share offer renewable energy project run by a local organisation.

STORAGE AND ACTIVE DEMAND RESPONSE

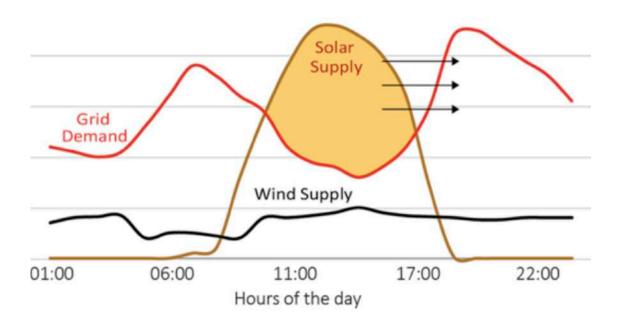
Each site should have appropriate management of the generation, storage and metering of its renewable electricity, including smart metering. The principle of an off-peak electric tariff is well understood, and has recently been developed as a more flexible time-of-use or agile tariff. Battery and other storage should be used to **manage peak supply** from renewables and peak demand from the homes. Excess solar-generated electricity can be battery-stored - either by a third party provider and/or by the user - or stored as hot water via an immersion heater in the user's cylinder. Appropriate in-home displays should make the energy generated and used **easy for residents** to understand.

In addition, electric vehicles can be used to help balance electricity demand. Electric vehicle use in Herefordshire is increasing - and each electric car contains a sizeable battery, which can be helpful in two ways. Firstly, vehicles can be charged efficiently and economically to **store excess site-generated renewable electricity.** Secondly, reverse-charging technology will allow the vehicle's battery to supply the building itself. As long as it has sufficient charge, the car battery can **provide**

power to the home, rather than using the grid supply, especially during peak electricity demand periods.

Technical options for storage, smart metering and smart grid technology are advancing. Each site, and third-party operator where relevant, should develop an appropriate and ambitious generation and storage design/procurement strategy, assessing the most cost-effective, user-friendly and carbon-reducing renewables option.

The local plan and early engagement with the electricity district network operator Western Power, and the energy supply company, should facilitate expansion of renewable energy as far as possible and ensure resilience.



Diagrammatic graph showing how daytime-generated solar electricity can be stored for use in the evening. (CLJSP, 2021)

10. EMBODIED & WHOLE-LIFE CARBON

Embodied carbon is the carbon used in a home's construction materials, transport and building operations on site. It also factors in maintenance/refurbishment over 60 years, and material recycling or disposal when a building is disassembled at its end of life (RICS, 2017).

Some commonly used building materials require significant energy to produce - eg concrete, plastic, steel, aluminium, brick - while others from far away may have high transport costs.

All homes should have **very low embodied carbon** in their construction and infrastructure. As the building industry is beginning to understand embodied carbon in more detail, a different approach will be taken for larger and smaller sites.

All schemes, irrespective of size, will use simple and cost-effective pragmatic measures for embodied carbon reduction, which can also reduce costs. Considerations should include reducing or eliminating steel, concrete and other high energy materials, lower carbon concrete where unavoidable, increased use of natural low-energy materials, reclaimed/recycled materials where appropriate, and higher recycled content products and finishes generally. See LETI Embodied Carbon Primer (LETI, 2020b) for guidance.

Herefordshire has a **strong tradition of timber building**, so wood-based materials could be considered for insulated panels, frame, flooring, and cladding etc. Herefordshire's **NMITE college** includes a Centre for Advance Timber Technology (CATT) which can support off-site fabrication, local supply chains and innovation. Some natural building materials can be carbonnegative, locking in carbon from the atmosphere: these are

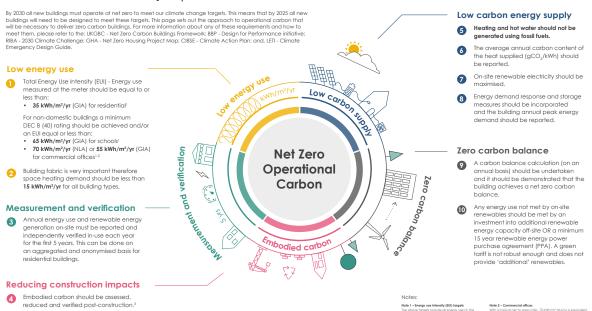
encouraged wherever possible. Careful consideration of the whole-life embodied carbon of materials should use RICS methodology.

For developments of five or more homes, detailed embodied carbon calculations should be produced, targeting <625 kgCO₂e/sqm for RICS whole life carbon stages A-C.

Lower embodied carbon is encouraged where feasible, and will result in lower carbon offsetting requirements (see 8 below).

LETI Net zero carbon: ten key requirements

GBC BBP BUILDING



Herefordshire Future Homes HFH

11. RETROFIT OFFSETS

The majority of carbon emissions from Herefordshire's existing homes - 77% - come solely from space heating. Currently the UK has the **least energy efficient housing** in Europe, Herefordshire being no exception, and it is expected that 85% of current homes will still be in use in 2050. At least **90% of existing buildings** need energy efficient retrofits to meet zero carbon targets (CCC, 2019).

An ambitious retrofit programme for existing local homes is therefore an essential part of the transition to net zero (Herefordshire Council, 2016). This will be supported by emerging local and national policy initiatives. Building new net zero homes on their own will not be enough: the contribution of real energy/carbon/fuel bill savings from properly insulating existing homes can be considerable - and those living in existing homes, especially near new developments, must not be left behind. Retrofitting as many local homes as possible to excellent standards will keep them in step with the new net zero homes (UKGBC, 2017 and 2021b).

A whole-house retrofit can **reduce home energy use by 50%-80%** with wider benefits in health, reduced NHS spending, skills and job creation. Retrofitting homes for the 16.5% of Herefordshire people in **fuel poverty** is essential for a just transition (LGA, 2019), UKGBC, 2017), (DBEIS, 2019).

Why is retrofit included in the <u>Herefordshire Future Homes</u> standard? There is increasing recognition that, especially for the embodied carbon of new homes described in section 7, net zero cannot be reached at present without **offsetting residual carbon emissions.** Offsetting schemes are sometimes controversial, with questions over their transparency. Woodland planting and

carbon capture and storage schemes (CCS) can be effective if carried out responsibly, but may be remote from the new homes constructed.

For all developments to achieve net zero it is therefore recommended, subject to a viability assessment, that 100% of embodied carbon emissions are offset, in order of preference, by:



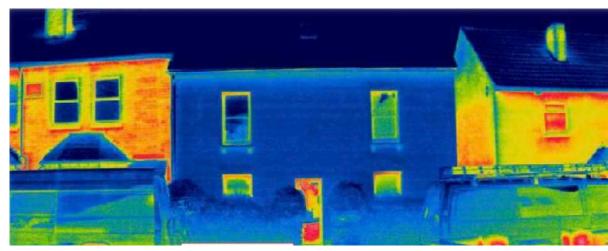


People Powered Retrofit partnership, led by Urbed, Greater Manchester

1. WHOLE-HOUSE RETROFITTING of local homes, benefitting existing residents and at the same time balancing residual embodied carbon from the new homes.

Retrofits should be certified to recognised high standards, either EnerPHit, the Passivhaus retrofit standard, or AECB Retrofit standard where that is not possible (Passive House Institute, 2015); (AECB, 2021). These have space heating requirements of <25 and <50 kWh/sqm/yr respectively, and other criteria and methods of compliance. In some cases - for instance if new windows have recently been fitted - a phased retrofit programme may be sensible, working to full certification at a future date. Gas and other fossil fuel heating should be removed and replaced with heat pumps or other low-carbon heating. Note EnerPHit allows a progressive approach: where it might not be sensible to carry out full retrofit in one phase - eg because new windows had recently been fitted - a phased approach could be adopted, working towards an agreed EnerPHit-compliant design.

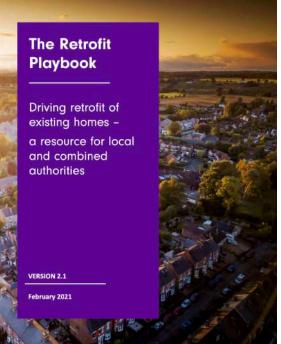
- **2. WOODLAND PLANTING**, following an accredited scheme such as the Forestry Commission's Woodland Carbon Code (WCC, 2021) or another scheme approved by Herefordshire Council. Local woodland planting is preferred wherever possible.
- **3. PAYMENT** to Herefordshire Council's local carbon offset fund, for retrofitting or other carbon reduction works, if 1 & 2 above are not possible. A carbon price at least equal to HM Treasury Green Book non-traded central scenario is recommended. For 2021, this is priced at £70/tCO₂e. (HM Treasury, 2020).
- For 1, 2 and 3 above, UK Green Buildings Council carbon offsetting recommendations and at least minimum reporting requirements should be followed (UKGBC, 2021a).



EnerPHit retrofit, Hereford, Simmonds Mills Architects. Thermographic image.

UKGBC Retrofit Playbook (UKGBC, 2021b)





12. EXCELLENCE

Locally-distinctive beautiful homes and places of the highest design quality are an essential part of a sustainable future, not an optional add-on. Herefordshire expects award-winning quality. Homes measured merely to technical standards could end up as second-rate designs, and even be prematurely demolished: unsustainable both environmentally and economically.

Development partners should carefully select architects/design teams/design concepts and procurement/building contract methods, dovetailing with commercial and other project constraints, to ensure the highest standards of design quality, as well as sustainability, are embedded from the start.

- **Design quality:** To give Herefordshire excellent architectural quality, the design approach should be informed by a thorough analysis of the physical, historical and cultural context of each site.
- Accessibility: To meet the needs of wheelchair users and others, an agreed proportion of homes for each site should be built to accessible/wheelchair standards, as defined in Building Regulations document M categories 2 & 3, and Lifetime Homes standard.
- Tenure: To avoid social discrimination, every development will be designed as "tenure blind" without differentiating between rented and other homes, in siting, standards, external material or design.
- Design toolkit: <u>Building for a Healthy Life</u> (previously published as Building for Life 12) standard will be referenced for assessment. This is supported by the NHS, Homes England in its evaluation of bids and others. It gives a red/amber/

- green traffic light on twelve underlying design principles. Note 20mph/5mph "Homezone" traffic speeds and walking/cycling priority are encouraged (Birkbeck et al, 2020).
- National Space Standards: These will be required as a minimum - creating comfortable and spacious homes which are naturally light and bright with access to private outdoor space.

The **power of excellent design** throughout will help to inspire people, build local pride, and engage even those who hadn't thought themselves particularly green, to help ensure Herefordshire Future Homes lasting success.



Building for a Healthy Life

A Design Toolkit for neighbourhoods, streets, homes and public spaces



PASSIVHAUS IN PRACTICE - Exeter's experience

An interview with Emma Osmundsen, Exeter City Council.

Exeter City Council has been leading the way with Passivhaus environmental homes for over ten years. The approach has been quiet but consistent, starting small and growing in ambition but reaching global recognition for adopting stringent environmental factors that form the core of all the Council's developments, both commercial and residential. Exeter's efforts may have gone largely unnoticed in the UK but its achievements have been picked up globally, with Exeter cited as one of the leading global sustainable developers, providing advice and inspiration to North America, New Zealand, Canada and mainland Europe.

The interest derives from the fact that for the last decade all new Council buildings in the city are:

Very low energy – certified to the Passivhaus Standard
Healthy – meeting the German Biology (IBN 2015) Principles
Climate Ready – designed to be climate resilient to at least 2080
Integrated within a sustainable landscape – buildings are set within a permaculture integrated landscape.

What does this all mean? In reality Exeter has council homes and a pipeline of council buildings, including a leisure centre and swimming pools, extra-care village and offices. These buildings are healthy for residents and occupants, comfortable regardless of the weather and extremely cost effective to run (thereby helping to eradicate fuel poverty). From a Council perspective we have reduced operating and lifecycle building costs, with happier and healthier tenants, reduced rent arrears and anti-

social behaviour, and exemplar buildings that are performing way beyond comparable building regulation compliant assets.

Exeter City Council is proud of its environmental credentials but more importantly they are driven by delivering best value. Built assets are invariably one of the most expensive investments councils need to make and by adopting a triple-bottom line approach to new developments, Exeter has proved that it can deliver developments that are truly environmentally, socially and financially sustainable.

Over the last decade the Council have developed over a hundred certified Passivhaus homes, with 500 more in the pipeline. These have all been affordable homes meeting the City's ever increasing housing need. Of these homes, over 60% of residents have not needed to switch on their heating since the homes were occupied – whatever the weather! This has helped transform some households who can now afford a family holiday or extracurricular activities for their children.

The healthy features of all the new developments mean that residents have reported measurable health improvements and continue to be surprised by the quality of their surroundings, not least good sleep as a consequence of the low electro-magnetic radiation in the homes and the exemplar air quality with a constant supply of fresh air.

Reproduced with permission from Association for Public Service Excellence (APSE, 2018) edited/updated.



13. REVIEW

Herefordshire Future Homes is developing against a fast-moving backdrop of post-Covid economic recovery, the build-up to Glasgow's COP26 climate summit in November 2021, and evolving Government policy and initiatives.

This document will therefore be reviewed annually, allowing flexibility to respond to the changing landscape. For clarity, reviews will not dilute the net zero standards, but where appropriate these may be re-aligned with emerging best practice/research/legislation, if this is sufficiently robust, to minimise duplication of effort, cost and risk, and facilitate compliance for all involved.

As an example, in March 2021 the Environmental Audit
Committee launched an inquiry into low carbon construction
methods, commenting: "For decades we have been constructing homes and buildings with concrete and steel, with little thought to the carbon footprint involved." There are currently no Government standards for embodied carbon, but if policy on low-carbon and sustainable building materials appears, the embodied carbon standards in section 10 would then be reviewed.



14. GLOSSARY

AECB: The Association for Environmental Conscious Building is an independent not-for-profit UK network of individuals, building contractors, building industry professionals, academics etc who develop, share, train and promote sustainable building best practice. Their standards for new buildings and retrofits have self-certified performance levels, slightly more relaxed than Passivhaus levels but measured in a similar way. See AECB publications included in the References below.

Airtightness: A measure of the air leakage from a building. Even a small gap in the airtight construction layer would let warm air from inside a house leak away very quickly; especially critical with highly insulated buildings which need very little heat.

ASHP: An Air Source Heat Pump extracts low grade heat from the outside air and converts it to heat at a useful temperature for running a building. It's usually powered by electricity, ideally renewable electricity; and as an example 1 kWh of electric input might give 3.5kWh of heat output. See also GSHP.

Biodiversity: The complex variety of plant, animal and microorganism life in an area or habitat. Wildlife numbers have fallen dramatically - 70% over 50 years - but are important for many reasons including protecting our environment and soil formation, freshwater, agriculture, health and climate stability.

Building Regulations: The legal requirements for all new buildings, and for some work to existing buildings. Approved Documents set detailed technical standards for structural, fire, ventilation, drainage and other building performance. These include Document L covering energy conservation standards.

Carbon footprint: The amount of carbon dioxide(CO₂) resulting from an activity, product, person etc. It is usually expressed in kgCO₂e, ie the weight of carbon dioxide - a gas causing the climate crisis. The "e" stands for "equivalent", so other emissions are converted back to a CO₂ equivalent measure. See also Embodied carbon and Operational carbon.

Carbon vs energy: Both are used to measure building performance. Carbon emissions (CO₂e) directly impact climate change. Focussing solely on carbon, however, can skew our thinking. A poorly performing building, which met all its needs with renewable energy, could still technically be zero carbon - but very expensive and wasteful of resources. Therefore the first aim must be to reduce a home's annual operational energy use to a very low level, measured against its floor area (kWh/sqm.yr). It then becomes sensible to meet that greatly reduced need with renewable energy, which will mean very low or ideally net zero carbon performance (kgCO₂e/sqm.yr).

Carbon neutral or net zero: A building that generates as much energy from renewable resources as it uses. This energy could come from on site or elsewhere, and could be calculated as a "net" balance. The term is sometimes used to refer just to a building's operational carbon (see separate entry below), but should also include embodied carbon (see below) as UKGBC, LETI and RIBA definitions, see References.

COP26: International UN Climate Change summit negotiations, to be held in Glasgow, November 2021. COP stands for Conference of the Parties. See also Paris Agreement.

CCC: The UK's Climate Change Committee was set up in 2008 by the Climate Change Act, and gives independent analysis,

monitoring and advice on the UK Government's progress in meeting statutory targets.

Embodied carbon: The carbon emissions from a building's construction and maintenance. They include materials, their production, transport and installation on site, as well as planned maintenance, replacement and disposal at end of life, taken over a theoretical 60 year building life for consistency. Although embodied carbon can be as much as 50% of a home's total carbon footprint, it is not covered by UK regulations.

Energiesprong: A framework from the Netherlands, now being used in UK, to retrofit (see below) existing homes to net zero standards, with a financial model which meets the initial capital cost with the savings in running costs.

EnerPHit: A high performance building standard for retrofitting existing buildings. "PH" indicates it's a Passivhaus standard, but requires a lower performance than for a new building.

Certification can be for a complete retrofit carried out at one time or for a programme of work phased over a number of years.

Energy use/energy intensity: The total energy used in a building's operation, usually measured in kilowatt hours per square metre of internal floor area per year (kWh/sqm.yr). Sometimes referred to as energy intensity. See also Carbon vs energy and Operational carbon.

Future Homes standard: A forthcoming UK standard for more energy-efficient housing. Government has promised consultation in 2023, ahead of implementation in 2025 (MHCLG, 2021).

GSHP: Ground source heat pump. Like ASHP (see above), this extracts low grade heat, in this case from a coil or borehole in the ground rather than from the outside air. Typically more expensive, but also more efficient, than ASHP.

Heat pump: see ASHP and GSHP above. An experienced designer and installer are essential to ensure proper operation.

Herefordshire apple tree: Herefordshire has for centuries been recognised as the leading county for apples, with many of its own orchards, community orchards, nurseries, apple varieties & ciders.

IPCC: The Intergovernmental Panel on Climate Change, a UN panel of international scientists who assess peer-reviewed research on climate change and its likely impacts, risks, and mitigation options. Their partial report published in August 2021 (IPCC, 2021) was headlined "Code Red for Humanity".

LETI: London Energy Transformation Initiative is a network of London-based building professionals who have published progressive voluntary standards and explainers, see References.

Low carbon building materials: Some common building materials release much more CO_2 in their production and use than others. Cement, for example, is responsible for 8% of global carbon emissions. Trees absorb CO_2 when they grow, so even after accounting for the carbon released during production, timber is a low carbon material.

MVHR Mechanical ventilation heat recovery: A Passivhaus base requirement. Typically a central fan unit extracts warm and humid air from kitchens and WCs, and reclaims 90% of the heat to prewarm filtered incoming air supplied to other rooms. It avoids the significant heat losses from opening windows in winter.

National Space Standard or NDSS: A minimum floor area standard, based on the number of people and bedrooms in a home. Although this Government standard widely used, it is not mandatory. See Reference (MCHLG, 2015).

Net zero energy/net zero carbon: See carbon vs energy, and also Carbon neutral or net zero above.

Offset: A reduction in carbon emissions made in one place to compensate for unavoidable carbon emissions in another place. see section 11, Retrofit offsets.

One Planet Living: A voluntary non-prescriptive framework which covers a wide range of environmental issues. Developed by Bioregional; see section 7.

Operational carbon: The carbon emissions from operating a building each year. A new building with net zero operational carbon does not burn fossil fuels, and is 100% powered by renewable energy. See also Carbon vs energy.

Overheating: The hotter summers caused by climate change are making uncomfortably hot buildings an increasing problem.

Fitting air-conditioning would just consume more energy, fuelling climate change. A well-designed building should design the problem out - eg with summer shading to windows, night-time ventilation, etc. See section 6K.

Paris agreement: An international UN treaty on climate change agreed by 196 countries in Paris in 2015 (COP 21). It aims to limit global warming to below 2 degC, and preferably below 1.5 degC, compared with pre-industrial levels. See also COP 26.

PAS 2035: See Retrofit. PAS 2035 is a new code which defines the stages and skills needed in the process of a retrofit. It does not define a performance standard - see AECB and EnerPHit.

Passive solar design: Useful winter sunshine, typically through south windows, which can provide a third of the heating needed in a highly insulated house. Passive solar design is one component of the Passivhaus standard.

Passivhaus: An energy-efficient building standard, now widely recognised in the UK, which has been adopted for Councildeveloped social housing in Exeter, Norwich, York, and elsewhere. An independent consultant is required to certify the design and construction. See section 8, diagram in section 2, and publications by the Passivhaus Trust and Passive House Institute in References.

Passivhaus Plus: Developed from the original Passivhaus standard, this includes an additional requirement for on-site renewable energy; for a detail description see section 8.

Performance gap: The gap between a building's designed and measured energy performance. This can be as much as 60% or more in UK mainstream buildings.

PHPP Passivhaus Planning Package: A piece of software used in Passivhaus, AECB and other building performance design, evaluation and certification.

Post-occupancy monitoring: Assessment of a building's energy use, carbon emissions, running costs, occupants' satisfaction etc at one or more points after completion. See 6M and (RIBA, 2016).

PV, Photovoltaic: See solar panels.

Regulated and un-regulated energy: Energy such as space heating is covered by Building Regulations and known as regulated energy. But unregulated energy - that used by other appliances and not covered by Building Regulations - can be very significant too, and is included in total energy use.

Renewable energy: Energy generated from solar, wind, hydro, biomass and other sources, which are naturally replenished and so have no carbon emissions at source. The opposite is energy

from fossil fuels - coal, oil and gas - which can never be replenished, and are causing the climate crisis.

Retrofit: Making an existing home much more energy-efficient. This should include insulating all its walls, floors, roof, windows and doors, improving airtightness, and controlling ventilation and condensation risks. It could also have heat recovery ventilation (MVHR), a heat pump, solar panels, efficient lighting, plumbing etc. See also AECB, EnerPHit and PAS2035.

RIBA Climate Challenge 2030: A reporting standard against design targets set out for 2025 and 2030. A number of its points are covered by <u>Herefordshire Future Homes</u> standards. Its metrics may be incorporated into future UK standards, and it is expected that all architects for Herefordshire Council's homes will have joined the scheme, See (RIBA, 2021a).

Solar panels: Usually roof-mounted panels which convert light - even from cloudy skies - into renewable electricity. Also called photo-voltaic or PV panels.

Solar thermal: Using the sun's energy to make heat. Typically roof-mounted panels or tubes supplying hot water.

Storage of energy: Important for renewable energy. For instance solar electricity generated by day can be stored in a battery for use during the evening.

Sustainability: The Brundtland report's 1987 definition is that sustainable development meets the needs of the present, without compromising the ability of future generations to meet their own needs. Another definition is the seventeen UN sustainable development goals, illustrated on p.20 (UNDESA, 2015).

Tenure blind: Homes build for private sale, affordable rent and shared ownership that are designed to be similar in appearance,

and mixed together in layout. This helps to build communities which are more integrated and cohesive.

UK Green Buildings Council: A membership organisation collaborating over best practice, knowledge and advocacy. It includes professionals, contractors, developers and manufacturers from across the building industry, committed to better environmental building standards and practices.

Whole life carbon: All the carbon emissions resulting from a building's construction, maintenance and end of life (see embodied carbon); plus its running (see operational carbon).

Whole life costing: The total financial cost of a building over its lifetime. This includes construction capital cost, maintenance, end of life, and annual running costs over a theoretical 60-yearbuilding life. Low energy buildings might typically have slightly higher initial construction costs, but (much) lower running and maintenance costs. Comparison of whole life costs and whole life carbon emissions gives the full picture.

Whole life carbon: All the carbon emissions resulting from a building's construction, maintenance and end of life (see embodied carbon); plus its running (see operational carbon). See section 7.10 and References (WLCN, 2021), (RICS, 2017).

Whole life costing: The total financial cost of a building over its lifetime. This includes construction capital cost, maintenance, end of life and annual running costs over a theoretical 60 years building life. Low energy buildings might typically have slightly higher initial construction costs, but (much) lower running and maintenance costs. Comparison of whole life costs and whole life carbon emissions gives the full picture.

15. REFERENCES & CREDITS

AECB (2017) Association for Environmentally Conscious Building. *AECB Building standard*. Available at: https://aecb.net/wp-content/uploads/2019/09/AECB-Standard-Further-Information-7.6.21.pdf Previously AECB Silver Building standard.[Accessed 15 July 2021]

AECB (2020) Association for Environmentally Conscious Building. *AECB PHribbon*. Software tool for calculating embodied carbon, daylight factor, WLC, etc, based on PHPP (Passive House Institute, 2015). Available at: https://www.phribbon.co.uk [Accessed 16 July 2021]

AECB (2021) Association for Environmentally Conscious Building. *AECB Retrofit standard*. Available at: https://aecb.net/wp-content/uploads/2019/09/AECB-Retrofit-Standard-Guidance.pdf [Accessed; 16 July 2021)

Arup (2016) Carbon emissions in the UK Built Environment. Available at: http://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/05/Routemap-infographic.pdf [Accessed 16 July 2021]

ASPE (2018) Association for Public Service Excellence. Passivhaus: Exeter City

Council leading by example. Available at: https://www.apse.org.uk/apse/

index.cfm/news/articles/20181/passivhaus-exeter-city-council-leading-by-example/ [Accessed 16 August 2021]

Bioregional (2011) *One Planet Living*. Available at: https://www.bioregional.com/one-planet-living [Accessed 16 July 2021] This holistic framework for sustainable living was developed from work by World Wildlife Fund and Bioregional.

Birkbeck, D., Kruczkowski, S. with Jones, P., McGlynn, S. & Singleton, D. (2020) Building for a healthy life: A design toolkit for neighbourhoods, streets, homes and public spaces. Design for Homes. Available at: https://www.designforhomes.org/wp-content/uploads/2020/11/BFL-2020-Brochure.pdf (Accessed 16 June 2021] This is a development of the original publication Building for Life launched in 2001 and updated in 2012.

Brightspace Foundation (2010) From field to table: a sustainable food and drink strategy for Herefordshire. Available at: https://www.brightspacefoundation.org.uk/our-projects/economy/herefordshires-sustainable-food-strategy [Accessed 05 May 2021]

BSRIA (2016) Building Services Research and Information Association. *Life Cycle Costing.* Available at: https://www.bsria.com/uk/product/gDXYPB/ life cycle costing bg 672016 a15d25e1/ [Accessed 16 July 2021]

CCC (2019) Climate Change Committee. *UK Housing: fit for the future?*Available at: https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/
[Accessed 16 July 2021]

Chaitanya, K. & Friedler C. (2019) Reinventing Retrofit: how to scale up home energy efficiency in the UK. Green Alliance. Available at: https://green-alliance.org.uk/reinventing_retrofit.php [Accessed 16 June 2021]

Climate Assembly UK (2020) *Resources*. Available at: https://www.climateassembly.uk/resources/ [Assessed 16 June 2021]. All the presentations made to Climate Assembly UK, the first Citizens Assembly in the UK, which met January - March 2020 and reported in September 2020.

CLC (2020) Construction Leadership Council. Statement on Net Zero Carbon and the Climate emergency. Available at: https://www.constructionleadershipcouncil.co.uk/news/clc-statement-on-net-zero-carbon-and-the-climate-emergency/ [Accessed 21 Jan 2021]

CLJSPC (2021) Central Lincolnshire Joint Strategic Planning Committee. *Local Plan consultation library*. Available at: https://www.n-kesteven.gov.uk/central-lincolnshire/local-plan-consultation-library/ [Accessed 16 July 2021]

CSIC (2021) Centre for Smart Infrastructure and Construction. *Carbon Reduction Code.* Available at: https://www-smartinfrastructure.eng.cam.ac.uk/files/carbonreductioncode-issue_1.0_june_2021.pdf [Accessed 16 July 2021]

Currie & Brown (2019) The costs and benefits of tighter standards for new buildings: A Report for the Committee on Climate Change. Available at: https://www.theccc.org.uk/publication/the-costs-and-benefits-of-tighter-standards-for-new-buildings-currie-brown-and-aecom/ [Assessed 12 February 2021]

Currie & Brown (2021) Central Lincolnshire Local Plan: Climate change evidence base, Task H - cost implications. Available at: https://www.n-kesteven.gov.uk/ central-lincolnshire/local-plan-consultation-library/ [Accessed 16 June 2021]

35

DBEIS (2015) Department for Business, Energy & Industrial Strategy. *UK local authority and regional estimates of carbon dioxide emissions from 2005*. Available at: https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics [Accessed 27 May 2021]. Note CO₂e emissions from Herefordshire housing: 294.7 ktCO₂e, 26.06% of total county emissions.

DBEIS (2019) Department for Business, Energy & Industrial Strategy. *Sub-Regional fuel poverty, 2019 data.* Available at: https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2021. [Accessed 16 June 2021] Herefordshire Fuel Poverty stated as 16.5%, 13,902 out of 84,028 households.

DCLG (2010) Department for Communities and Local Government. Code for Sustainable Homes Technical Guide. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/5976/code_for_sustainable_homes_techguide.pdf [Accessed 16 June 2021]. The Code was launched in 2006 and withdrawn in 2015.

DEFRA (2021) Department for Environment, Food & Rural Affairs. *UK statistics on waste*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002246/
UK stats_on_waste_statistical_notice_July2021_accessible_FINAL.pdf
https://www.uploads/attachment_data/file/1002246/
https://www.uploads/attachment_data/file/10022

Energiesprong (2021) *Energiesprong UK*. Website: a whole-house refurbishment standard and funding approach. Available at: https://www.energiesprong.uk [Accessed 16 June 2021]

Evans, H. (2020) Making net zero happen: How can Authorities target the highest standards in energy performance for new council-led homes? Available at: https://www.publicpractice.org.uk/resources/making-net-zero-happen. [Accessed 25 Mar 2021]. Public Practice PN014/London Borough of Newham.

FCBS (2020) Fielden Clegg Bradley Studios. FCBS Carbon, a whole carbon review tool Software tool. Open access software. Available at: https://fcbstudios.com/fcbscarbon [Accessed 16 June 2021]

GCB (2019) Green Construction Board Buildings Energy task group. *Summary of Recommendations for Newbuild*. Available at: http://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2019/05/GCB-BEM-Newbuild-RECOMMENDATIONS-230419.pdf [Accessed 18 Feb 2021]

GHA (2018) Good Homes Alliance. *Local Authority Vanguard Network*. Available at: https://goodhomes.org.uk/vanguard-network https://goodhomes.org.uk/campaign/vanguard-campaign). [Accessed 20 June 2021]

GHA (2019) Good Homes Alliance. *Overheating in new homes*. Available at: https://goodhomes.org.uk/overheating-in-new-homes [Accessed 15 July 2021]

GHA (2020a) Good Homes Alliance. *Build Net Zero Now.* Campaign initiative Available at: https://goodhomes.org.uk/campaign/build-net-zero-now [Accessed 12 Jan 2021]

GHA (2020b) Good Homes Alliance. *Building Standards Comparison: 2020 building standards compared to a net zero operational target.* Available at: https://goodhomes.org.uk/resource/building-standards-compared [Accessed 16 June 2021]

Hawkins\Brown (2021) H\B:ERT Hawkins\Brown Emission Reduction Tool Software tool. Open access software. Available at: https://www.hawkinsbrown.com/services/hbert [Accessed 16 July 2021]

HBS (2016) Hamson Barron Smith. *Carrowbreck Meadow Monograph*. Available at: https://www.hamsonbarronsmith.com/wp-content/uploads/2016/07/ Carrowbreck-Meadow-Monograph-Downloadable-002.pdf [Accessed 27 Aug 2021]

Herefordshire Council (2015) Sustainable water management in Herefordshire. Available at: https://www.herefordshire.gov.uk/downloads/file/3710/guidance-note-19-sustainable-water-management [Accessed 05 May 2021]

Herefordshire Council (2016) *Herefordshire Affordable Warmth Strategy 2016-19* Available at: https://www.herefordshire.gov.uk/downloads/file/4356/affordable-warmth-strategy [Accessed 19 May 2021]

Herefordshire Council Intelligence Unit (2019) *The future population of Herefordshire*. Available at: https://understanding.herefordshire.gov.uk/media/1617/future-population-of-herefordshire.pdf [Accessed 16 May 2021]. Note population increase of between 6%-17% is predicted over the next fifteen years.

HM Treasury (2020) Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal. Available at: https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent [Accessed: 17 Aug 2021].

Herefordshire Future Homes **HFH**

IPCC (2021) Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/report/ar6/wg1/ downloads/report/IPCC_AR6_WGI_SPM.pdf [Accessed 10 Aug 2021]

Kimpian, J., Hartman, H. & Pelsmakers, S. (2021) Energy People Buildings: Making sustainable architecture work. RIBA Publishing. Available at: https:// www.ribabooks.com/energy-people-buildings-making-sustainable-architecturework_9781859465875 [Accessed 16 July 2021]

LETI (2019) London Energy Transformation Initiative. Net Zero Operational Carbon: Ten key requirements for new buildings. Available at: https:// www.leti.london/one-pager [Accessed 16 July 2021]

LETI (2020a) London Energy Transformation Initiative. Climate Emergency Design Guide. Available at: https://www.leti.london/cedg [Accessed 16 July 2021]

LETI (2020b) London Energy Transformation Initiative. LETI Embodied Carbon Primer. Available at: https://b80d7a04-1c28-45e2-b904-252d09_8ceffcbcafdb43cf8a19ab9af5073b92.pdf. [Accessed 21 Jan 2021] e0715cface93.filesusr.com/ugd/

LGA (2019) Local Government Association. The cost of unhealthy housing to the NHS. Available at: https://www.local.gov.uk/parliament/briefings-andresponses/cost-unhealthy-housing-nhs-house-commons-26-february-2019 [Accessed 16 July 2021]

MHCLG (2015) Ministry of Housing, Communities & Local Government. Technical Housing Standard: nationally described space standard. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/ attachment data/file/

524531/160519_Nationally_Described_Space_Standard__ Final Web version. pdf [Accessed 16 June 2021]

MHCLG (2021) Ministry of Housing, Communities & Local Government. The Future Buildings Standard: Consultation on changes to Part L (conservation of heat and power) and Part F (ventilation) of the Building Regulations for nondomestic buildings and dwellings; and overheating in new residential buildings. Available at: https://assets.publishing.service.gov.uk/government/uploads/ system/uploads/attachment data/file/956037/

Future_Buildings_Standard_consultation_document.pdf [Accessed 16 Aug 2021]

Mitchell, R. & Natarajan, S. (2020) UK Passivhaus and the energy performance gap. Available at: https://www.researchgate.net/publication/ 342340302 UK Passivhaus and the energy performance gap [Accessed 17 May 2021]

NMITE (2021) New Model Institute for Technology and Engineering. Website. Available at: https://nmite.ac.uk/about Herefordshire based; includes Centre for Advanced Timber Technology [Accessed 16 July 20211]

Passive House Institute (2016) Criteria for the Passive House, EnerPHit and PHI Low Energy Building Standard. Available at: https://passiv.de/downloads/ 03 building criteria en.pdf [Accessed: 16 July 2021]

Passive House Institute (2015) PHPP: Passivhaus Planning Package: a design tool for calculating energy balances for Quality Approved Passive House and EnerPHit Refurbishments. Software tool. Available at: https://aecb.net/product/ passive-house-planning-package-v9-upgrade-from-v7 [Accessed: 16 July 2021]

Passivhaus Trust (2016) Touching the Voids: the impact of energy efficiency on social landlord income & business plans, Sustainable Homes. Available at: https://www.passivhaustrust.org.uk/UserFiles/File/PH%20Social/touching-thevoids---Sustainable%20Homes.pdf [Accessed 16 July 2021]

Passivhaus Trust (2018) Passivhaus Social Housing: Maximising benefits, minimising costs. Available at: https://www.passivhaustrust.org.uk/UserFiles/ File/PH%20Social/PH%20Social%20FINALwebV2(1).pdf [Accessed 16 July 2021]

Passivhaus Trust (2019a) Passivhaus Construction Costs. Available at: https:// www.passivhaustrust.org.uk/UserFiles/File/research%20papers/Costs/ 2019.10 Passivhaus%20Construction%20Costs.pdf [Accessed 16 July 2021]

Passivhaus Trust (2019b) Case study: Goldsmith Street delivers economies of scale. Available at: https://passivhaustrust.org.uk/news/detail/?nld=840 [Accessed 15 Apr 2021]

Price, S. & Brown, H. (2014) Whole-life costs of a Passivhaus: Sensitivities of whole-life cost analysis for domestic Passivhaus buildings. Encraft. Available at: https://www.passivhaustrust.org.uk/UserFiles/File/Technical%20Papers/ Technical-Insight-February-2014-Whole-life-Costs-of-a-Passivhaus%20by%20Encraft.pdf [Accessed 16 July 2021]. The report shows the whole-life savings for Passivhaus. The document includes assessment of ASHP, MVHR, PV, timber frame and other scenarios.

RIBA (2016) Royal Institute of British Architects. *Post Occupancy Evaluation and Building Performance Evaluation Primer.* Available at: https://www.architecture.com/-/media/gathercontent/post-occupancy-evaluation/additional-documents/ribapoebpeprimerpdf.pdf [Accessed 16 July 2021]

RIBA (2020) Royal Institute of British Architects. *Greener Homes: Decarbonising the housing stock.* Available at: https://www.architecture.com/-/media/GatherContent/Paywalled-resource-with-many-PDFs-VPC/Additional-Documents/GreenerHomespdf.pdf [Accessed 16 July 2021]

RIBA (2021a) Royal Institute of British Architects. RIBA 2030 Carbon Challenge. Available at: https://www.architecture.com/-/media/files/Climate-action/ RIBA-2030-Climate-Challenge.pdf [Accessed 16 June 2021].

RIBA (2021b) Royal Institute of British Architects. 2030 Carbon Challenge resources. Available at: https://www.architecture.com/about/policy/climate-action/2030-climate-challenge/resources [Accessed 16 June 2021]. A collection of resources including RIBA, partner organisations and software tools.

RICS (2017) Royal Institute of Chartered Surveyors. Whole life carbon assessment for the built environment. Available at: https://www.rics.org/globalassets/rics-website/media/news/whole-life-carbon-assessment-for-the-built-environment-november-2017.pdf [Accessed 16 July 2021]

Robins, N. & Tickell, S. (2020) *Policy brief: Financing a just transition to net-zero emissions in the UK housing sector.* London School of Economics: Grantham Research Institute on Climate Change and the Environment. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/07/Financing-a-just-transition-to-net-zero-emissions-in-the-UK-housing-sector.pdf [Accessed 16 June 2021]

Robins, N., Tickell, S., Irwin, W. & Sudmant, A. (2020) Financing climate action with positive social impact: How banks can support a just transition in the UK London School of Economics: Grantham Research Institute on Climate Change and the Environment. Available at: https://www.lse.ac.uk/granthaminstitute/publication/financing-climate-action-with-positive-social-impact-how-banking-can-support-a-just-transition-in-the-uk/ [Accessed 19 May 2021]

UKGBC (2017) UK Green Buildings Council. A housing stock fit for the future: Making home energy efficiency a national infrastructure priority. Available at: https://www.ukgbc.org/wp-content/uploads/2017/09/
A20housing20stock20fit20for20the20future20-20Making20home20energy20effi

UKGBC (2019) UK Green Buildings Council. Net zero carbon buildings: a framework definition. Available at: https://www.ukgbc.org/ukgbc-work/net-

ciency20a20national20infrastructure20priority.pdf [Accessed 16 July 2021]

zero-carbon-buildings-a-framework-definition/ [Accessed 16 July 2021]

UKGBC (2021a) UK Green Buildings Council. Renewable Energy Procurement & Carbon Offsetting: Guidance for net zero buildings. Available at: https://www.ukgbc.org/wp-content/uploads/2021/03/Renewable-Energy-Procurement-Carbon-Offsetting-Guidance-for-Net-Zero-Carbon-Buildings.pdf [Accessed 20

UKGBC (2021b) UK Green Buildings Council. *The Retrofit Playbook: Driving Retrofit of existing homes: a resource for local and combined authorities*Available at: https://ukgbc.s3.eu-west-2.amazonaws.com/wp-content/uploads/2021/02/05144353/Retrofit-Playbook.pdf [Accessed 18 Aug 2021].

UNCC (2021) United Nations Climate Change. *NDS Synthesis report*. Available at: https://unfccc.int/news/climate-commitments-not-on-track-to-meet-paris-agreement-goals-as-ndc-synthesis-report-is-published [Accessed 16 July 2021]

UNDESA (2015) United Nations Department of Economic and Social Affairs. Sustainable Development Goals. Available at: https://sdgs.un.org/goals [Accessed 15 July 2021]

WLCN (2021) Whole Life Carbon Network. Improving Consistency in Whole Life Carbon Assessment and Reporting. Available at: https://b80d7a04-1c28-45e2-b904-e0715cface93.filesusr.com/ugd/

252d09_879cb72cebea4587aa860b05e187a32a.pdf [Accessed 15 June 2021]

Wood Knowledge Wales (2021) Zero Carbon Homes: Actions to integrate Welsh forest industries with modern methods of construction. Available at: https://woodknowledge.wales/wp-content/uploads/2019/06/zero-carbon-homes-fromwood-2019-English.pdf [Accessed 20 Feb 2021]

WCC (2021) Woodland Carbon Code. Available at: https://woodlandcarboncode.org.uk [Accessed 20 July 2021].

Image credits: to be added.

July 2021].





Variation to West Mercia Energy Joint Agreement

Meeting: Cabinet

Meeting date: Thursday 16 September 2021

Report by: Cabinet member commissioning, procurement and assets, Cabinet member finance, corporate services and planning;

Classification

Open

Decision type

Non-key

Wards affected

(All Wards);

Purpose

This report recommends to Cabinet and seeks approval that the Joint Agreement be varied to update the formulae for the distribution of the accumulated surplus each year.

The proposed new method ensures that if one Member Authority decides to adjust their margin compared to the other Member Authorities, then the impact is solely on the Member Authority making the change.

The Joint Agreement includes the provision that accumulated surpluses identified for distribution are allocated to Member Authorities each year.

Recommendation(s)

That:

- a) the West Mercia Energy Joint Agreement be varied to update the formulae for the distribution of the accumulated surplus each year; and
- b) the interim Director for Economy and Place be authorised, following consultation with the Solicitor to the Council and S151 Officer to finalise and execute the variation.

Alternative options

- 1. Do not agree the new distribution formulae. This option is not recommended because the current method was set up on the basis where all Member Authorities adopt the same margin approach. Should this not continue to be the case in the future then an alternative method is required to ensure an equitable distribution. Should a member wish to reduce their margin the current method would negatively affect all Members rather than just the member wishing to reduce their margin.
- 2. The proposed new method ensures that if one Member Authority decides to adjust their margin compared to the other Member Authorities, then the impact is solely on the Member Authority making the change.

Key considerations

- In 2012 Cabinet granted approval for Herefordshire Council to enter into a Joint 3. Agreement with Shropshire, Telford & Wrekin and Worcestershire Councils trading as West Mercia Energy (WME). WME now supplies energy on behalf of its partners to public sector organisations across the country.
- 4. The Joint Agreement includes the provision that accumulated surpluses identified for distribution are allocated to Member Authorities each year partly based on the level of trading activity by each Member Authority and partly based on non-member trading activity.
- 5. The accumulated surpluses are distributed in October of each year to the Member Authorities.
- Under the current formula those Member Authorities with a larger gross profit 6. contribution, whilst getting a greater return, in effect also contribute to the cost base to a greater extent.
- 7. In addition, should one Member Authority choose to trade less with WME or require a lower margin approach to the others then the current formula would have some weaknesses and an alternative option is more appropriate.
- 8. The current method was set up on the basis where all Member Authorities adopt the same margin approach. Should this not continue to be the case in the future then an alternative method is required to ensure an equitable distribution.
- 9. At the meeting of the Member Authority Key Officers on 5th February 2021 there was a consensus to change the method with effect from the October 2021 distribution. Any change to the distribution formulae requires a change to the Joint Agreement which requires sign off by each Cabinet.
- 10. The current method was set up on the basis where all Member Authorities adopt the same margin approach, there is however significant risk to this. Should a member wish to reduce their margin the current method would negatively affect all Members rather than just the member wishing to reduce their margin. The proposed new formulae ensures that if one Member Authority decides to adjust their margin compared to the other Member Authorities, then the impact is solely on the Member Authority making the change thus protecting the other member authorities from this existing risk.

11. The Member Authorities propose to amend the terms of the Agreement as set out below. The amount of the accumulated surplus to be distributed to each Member Authority in a Financial Year shall be calculated in accordance with the following formula:

$$DA = A + B - C (+ or -) D (+ or -) E$$

Where:

DA is the distribution amount from the accumulated surplus to be paid to an individual Member Authority in a Financial Year;

A is the gross profit contribution generated by that Member Authority's transactions with WME during the previous Financial Year;

B is 25% of the gross profit generated by non-Member Authority customers during the previous Financial Year;

C is 25% of the expenditure incurred by WME during the previous Financial Year;

D is 25% of the amount allocated in WME's accounts for movement in the retention sum during the previous Financial Year, which may be a positive or negative figure;

E is 25% of the amount allocated in WME's accounts for other movements in WME's General Fund during the previous Financial Year, which may be a positive or negative figure.

Community impact

12. The council, schools, colleges and other public sector organisations currently purchase energy from WME and secure good value for money.

Environmental Impact

- 13. Herefordshire Council provides and purchases a wide range of services for the people of Herefordshire. Together with partner organisations in the private, public and voluntary sectors we share a strong commitment to improving our environmental sustainability, achieving carbon neutrality and to protect and enhance Herefordshire's outstanding natural environment.
- 14. WME provide Renewable Energy Guarantees of Origin (REGO) backed 100% renewable to electricity to customers who chose this option.
- 15. In 2019 Herefordshire Council switched its supply of electricity provided by WME to 100% REGO backed renewable energy which supports support the delivery of EN5.1 (reduce the council's own carbon footprint) from the councils county plan.
- 16. This decision relates to the distribution of financial surplus of WME and does not have a direct environmental impact. However it should be noted that this surplus received by Herefordshire Council has in previous years been allocated to the Climate Reserve. Whilst the updated formulae does result a reduced return to Herefordshire which will be added to the Climate Reserve, the updated formula significantly reduces the risk of a larger reduction in future years if partner authorities vary their margins.

Equality duty

17. Under section 149 of the Equality Act 2010, the 'general duty' on public authorities is set out as follows:

A public authority must, in the exercise of its functions, have due regard to the need to:

- a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 18. The public sector equality duty (specific duty) requires us to consider how we can positively contribute to the advancement of equality and good relations, and demonstrate that we are paying 'due regard' in our decision making in the design of policies and in the delivery of services. As this is a decision on back office functions, we do not believe that it will have an impact on our equality duty.

Resource implications

- 19. Under the new distribution formulae there is little impact on either Shropshire Council or Telford & Wrekin Council as their effective rate under the current method is approx. 25% (24.7% and 25.1% respectively). The impact is somewhat greater for Herefordshire Council and Worcestershire County Council as their current effective rates are either side of the 25% mark (22.4% and 27.8% respectively).
- 20. To illustrate this the below is provided based on figures from financial year 2019/20:

Variation in Methods:			
	<u>Current</u>	Proposed	
	Method	Method	<u>Change</u>
Shropshire Council	£274,804	£272,276	-£2,528
Worcestershire County Council	£308,268	£335,161	£26,893
Telford & Wrekin Council	£279,031	£280,219	£1,188
Herefordshire Council	£248,614	£223,061	-£25,553
	£1,110,717	£1,110,717	£0

21. For reference the previous 5 distribution payments to Herefordshire Council are below:

Payment Date	£	
Oct 20	248,614	
Oct 19	149,735	
Oct 18	174,123	
Oct 17	230,054	
Oct 16	439,028	

Legal implications

22. There are no legal issues arising from this report to bring to the attention of the decision-makers.

Risk management

- 23. Any decisions about the future development of the WME business are determined by a Joint Committee upon which Herefordshire Council is represented by the Cabinet Member for Commissioning, Procurement and Assets and the Cabinet Member for Finance, Corporate Services and Planning, acting upon information from an advisory group comprising of senior officers.
- 24. It should also be noted that the dividend the council receives from WME is based on their performance and there is therefore a risk that this could reduce in the future dependent on their trading position and financial outturn.

Consultees

25. West Mercia Energy constituent authorities.

Appendices

None.

Background papers

None identified.

Please include a glossary of terms, abbreviations and acronyms used in this report.

REGO - Renewable Energy Guarantees of Origin

WME - West Mercia Energy