

Journey Four

Home to beautiful, local landscapes and pioneering global ambitions — in 2040 Huntingdonshire will be net zero carbon. We set out to be a leader in green innovation making the most of our wonderful natural assets.

You said...



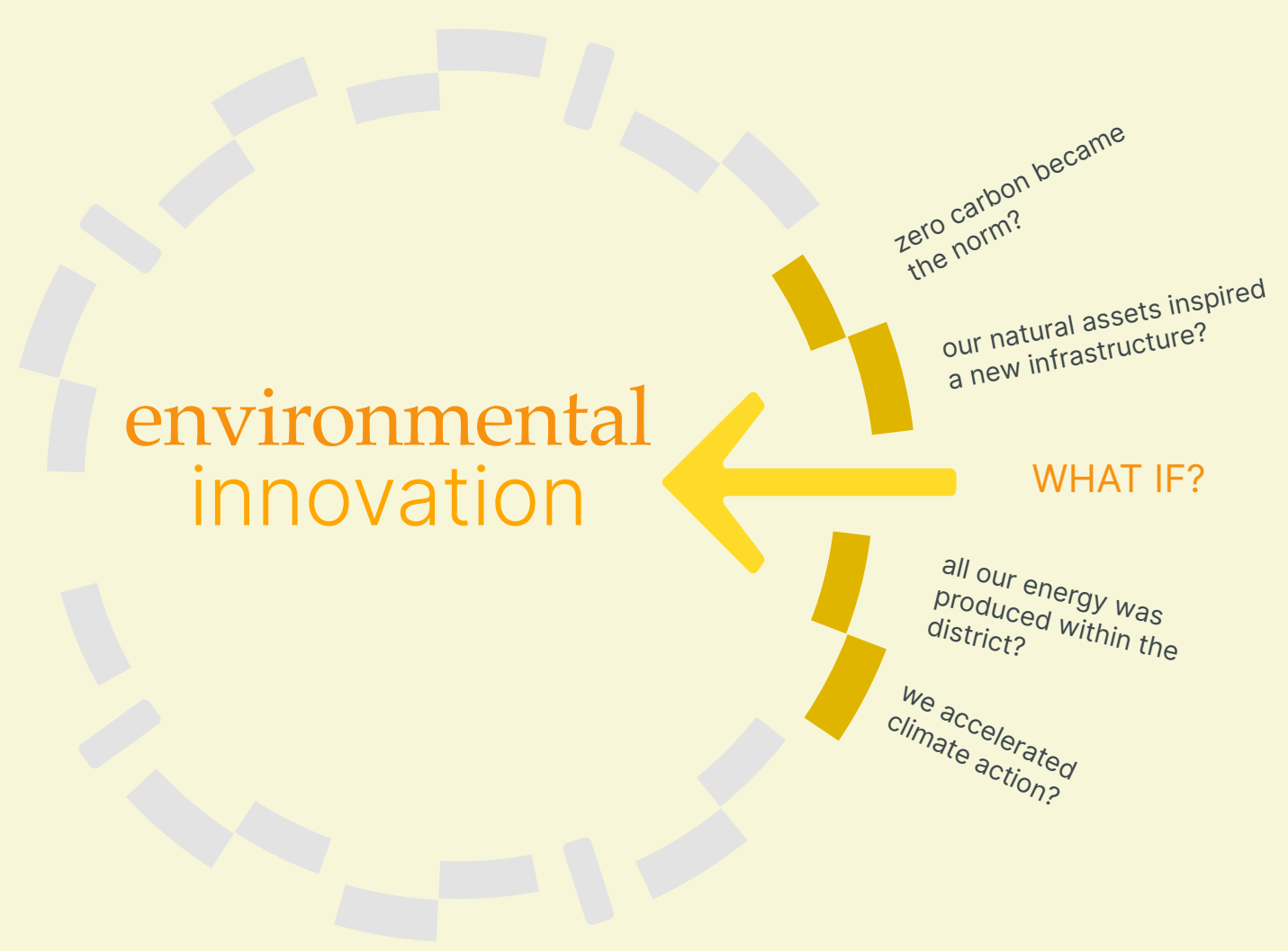
'All houses should have no carbon footprint.'



'We should be protecting what we already have.'



'There needs to be more done to make people change'



environmental innovation

zero carbon became
the norm?

our natural assets inspired
a new infrastructure?

WHAT IF?

all our energy was
produced within the
district?

we accelerated
climate action?

What if...

zero carbon became the norm?

In a world where... concern over the climate emergency has failed to be translated into serious action, the economy and finance mechanisms remain intertwined with the fossil fuel industry. Huntingdonshire produces 5.3 tonnes of carbon dioxide per person per year compared to the UK average of 5.2 tonnes, and our overall emissions are 88% higher than the UK average, mainly due to road traffic.

There is a place... that has the conditions for a rapid transition to net zero – plenty of versatile space for rewilding, developing carbon sinks and building renewable energy projects, as well as a community who support climate action especially if they can see tangible benefits.

Which could become... a test bed for initiatives that fast track the transition to net zero and the circular economy, a system based on re-use and regeneration. Where major infrastructure projects and new forms of financing go hand in hand with widespread behaviour change for both businesses and individuals. Where net zero initiatives don't feel like compromises but part of a bright future.

But only if... we establish a culture of openness to experimentation, taking risks and investing in ambitious net zero projects that build on current expertise and experience whilst balancing other priorities, proving to communities that they can share in the benefits of these schemes.

Source: Huntingdonshire BEIS Emission Data 2020, Huntingdonshire District Council Climate Strategy

What could we do?

1.

Improve energy efficiency

A grant scheme could be established to provide financing for homeowners and businesses to better insulate buildings. This would improve energy efficiency, reducing energy demand and its associated cost and carbon emissions.

Financing mechanisms could include grants, preferential loans or a mechanism to encourage groups of homeowners or businesses to coordinate to achieve economies of scale.

A drive to insulate would also create new business and employment opportunities across the district. This model could also explore localised insulation production business models, such as the use of reedmace which would also help restore fenlands.

2.

Deliver re-wilding projects

Carbon sinks are natural environments that remove more carbon than they produce, which in Huntingdonshire includes woodlands, scrublands and wetlands.

Land owners should be encouraged to deliver rewilding projects that maximise the role of the landscape as a carbon sink whilst also promoting biodiversity. This could work across different environments; from the planting of street trees, to increasing land set aside for nature in agricultural fields, to improving the carbon sink function of existing open spaces or delivering ambitious rewilding projects such as the Great Fen.

In addition, processes to estimate the amount of carbon absorbed could be developed to measure progress.

Guiding Lights



Leeds Climate Innovation District

Achieving low or zero carbon does not need to feel like a compromise. The Climate Innovation District in Leeds has created a desirable, sustainable urban community on former industrial land in the heart of Leeds.

The district integrates housing with healthcare, schools, offices and manufacturing plant surrounded by diverse and accessible open spaces. The buildings are designed to near Passivhaus standard, made from cross laminated timber frames and powered by 100% renewable energy.

Source: Leeds Climate Innovation District



3.

Support developments to function like the circular economy

Circular economy is a system where waste and pollution are eliminated, goods and materials are re-used and nature is regenerated. We could investigate if developments can function like the circular economy to achieve net zero carbon. This includes design allowing for repair and reuse, maximising the use of shared resources, considering embedded carbon in the building materials and construction process, as well as ensuring energy efficiency and use of renewable energy sources while in operation. This would need to be defined and achieved through collaboration with all stakeholders.

We could encourage residential and commercial buildings to achieve high sustainability standards. Awareness campaigns could increase the understanding of and demand for environmentally friendly homes.



What if...

our natural assets inspired a new infrastructure?

In a world where... societies have ignored and exploited nature, the climate crisis is accelerating with devastating effects including dramatic floods and droughts. In Huntingdonshire it is expected that nearly 1 in 10 homes will be affected by river flooding by 2100.

There is a place... that is defined by its lush, varied natural landscape, with river valleys, woodlands, meadows and fenlands.

Which could become... home to an extensive network of nature-based infrastructure which mimics or incorporates natural processes to create resilient urban and natural environments with enhanced biodiversity. Through wetlands, water meadows, green roofs, rain gardens and natural water filtration — we work in step with nature instead of against it.

But only if... we repaired and retrofitted ageing infrastructure, supported new nature-based solutions both in the public realm and in private buildings and protected and enhanced existing habitats.

Source: Fairness, nature and communities: addressing climate change in Cambridgeshire and Peterborough, CPICC. HDC Climate Strategy

Guiding Lights

Hammarby Sjöstad

New neighbourhoods across the UK and Europe are already leading the way by integrating nature based solutions into urban neighbourhoods.

Hammarby Sjöstad represents a complete infrastructural project in which energy, water, transportation, and waste collection systems were designed to work together as an “eco-cycle”. The integration and remediation of existing water features and incorporating sustainable urban drainage systems achieves greater resilience to extreme climates. The landscapes are designed to be multi-functional, naturally managing flood waters, increasing biodiversity and creating places for informal play.

Source: Hammarby Sjöstad



1.

Reduce water consumption

Water is one of our most precious resources, and is particularly vulnerable as the effects of the climate crisis become apparent.

Rainwater harvesting is the process of collecting and filtering rainfall from the roof of residential and commercial buildings. Greywater recycling collects wastewater from domestic appliances such as washing machines, baths, showers and sinks and treats this so it can be re-used. A programme of retrofit and standards for new developments could be investigated to fast track the transition to more sustainable water management, reducing demand whilst delivering savings.

2.

Promote biodiverse back gardens

Re-wilding doesn't just have to mean nature reserves and large open spaces; back gardens can be home to a diverse range of habitats. A promotional campaign developed with local conservation groups could encourage individuals to take steps in their own homes and neighbourhoods to increase the role of gardens as habitats and green corridors.

This could include building ponds or nesting opportunities for birds, insects and mammals or involve planting species that are great for pollinators, with a wide variety of species that flower throughout the year. Avoiding the use of pesticides, herbicides and insecticides as well as soils containing peat would also reduce harmful environmental impacts.

These steps deliver benefits for humans too, creating beautiful and peaceful spaces that are good for our mental health and teach us about our natural world.

3.

Retrofit sustainable drainage systems

Sustainable urban drainage solutions mimic natural processes to reduce the risk of flooding. By increasing permeable surfaces and planting, rain and floodwaters are better able to infiltrate into the soils and slow the rate of surface run off.

This involves replacing hard standing with more permeable surfaces, green and blue roofs, restoring wetlands and planting rain gardens.

Guidance for individual homeowners would raise awareness of the benefits and advise on small scale solutions. Planning policy could consider requirements that new developments deliver multifunctional green infrastructure including sustainable drainage. More large scale retrofit projects such as redesigning open spaces in flood prone areas and retrofitting road side raingardens could also be explored.

What if...

all our energy was produced within the district?

In a world where... we are faced by the perfect storm of energy, climate and cost of living crisis, we are all feeling the impact. Individual household energy bills are sky-rocketing, influenced by global politics. This can make it a challenge to invest in the future even though we know these issues will only get worse.

There is a place.. that has a strong, aspirational business community, many of which are clustered in networks, as well as flat landscapes and a dry and sunny climate. This includes places and organisations such as Waterside Green Energy that are beginning to implement community energy projects.

Which could become... a beacon of community energy production, with local people owning the process and reaping the benefits. From solar, wind and ground source heat pumps to processing reedmace for insulation, we can use our natural resources to power green growth across the district.

But only if... we develop new models of investment and ownership, with credible programmes and long-term support for both energy generation methods and retrofitting where possible to increase energy efficiency. Only if we create a mechanism which all people are aware of and can afford to participate in.

What could we do?

1.

Fast-track community energy

Community groups, partners and businesses could be inspired by the Waterside Green Energy Project to come together to develop their own community energy projects, taking collective action to reduce, purchase, manage and generate energy. These projects have an emphasis on local engagement and control and the local community benefits collectively from the outcomes.

This could be achieved through collaboration between partners and businesses to exploit funding and opportunity for local power generation. Toolkits could also be prepared that set out steps required to get different types of energy projects up and running, including information on grants and funding streams, advice on governance arrangements or organisational structures and lists of resources or help available.

2.

Embed renewable energy generation

We could investigate the delivery of renewable energy generation through new developments. The appropriate technique would be dependent on the local context and scale of the schemes. For example a network of ground source heat pumps could be more appropriate for larger developments, small wind turbines may be more appropriate for rural communities and solar PV's could be required on rooftops.

New and innovative approaches to renewable energy generation should be encouraged where appropriate. There could also be support programmes in place to encourage sensitive retrofit of existing homes and places.

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Waterside Green Energy

Communities in Huntingdonshire are already taking initiative, developing local, resilient, zero carbon energy projects.

Waterside Green Energy project is a charitable cooperative established in 2020. It seeks to develop and implement local renewable energy projects to achieve carbon neutrality by 2030. In particular, it is exploring how to implement hydropower generation on the River Great Ouse near Little Paxton. This has the potential to generate 860,000 KW hours per year equivalent to the energy required by over 300 homes whilst saving 257 tonnes of CO2 emissions per year.

Source: Waterside Green Energy

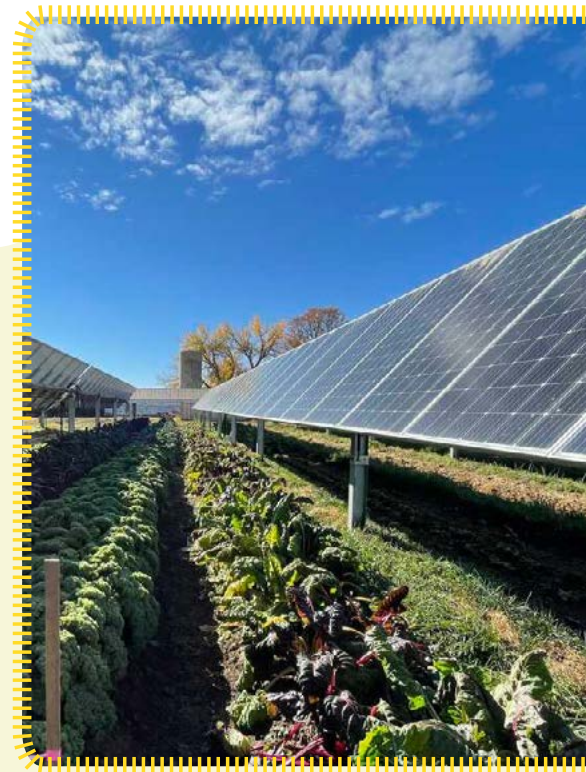


3.

Promote multi-functional agricultural land

Huntingdonshire's wide flat landscapes and dry sunny climate are ideal conditions for renewable wind or solar energy generation and there are many initiatives already in place. Huntingdonshire is well placed to become a leader in the transition to net zero by expanding this energy generation in the right places.

Given the significant role of agriculture in the district, renewable energy could be delivered in tandem with agricultural practices such as innovative stacking systems where arable and pastoral farming take place under solar panel systems. Green waste could also be converted through anaerobic digesters into gas for use in cooking and heating as well as a fertiliser.



What if...

we accelerated climate action?

In a world where... climate change is beginning to impact every aspect of society, young people are leading the shift in mindset and lifestyle. 78% agreed that looking after the environment was important to them but do not feel that enough is being done.

There is a place... that has great schools, community and business networks where many people, particularly the young, are in touch with the natural world through our abundant green spaces and where steps, such as Eco Councils, are already underway.

Which could become... a place where children and young people lead the net zero revolution. Where young people drive decision making and where the necessary steps to fast track change is clear for residents, businesses, the voluntary sector and communities and they are all held accountable.

But only if... action planning involves all stakeholders, reflects local capabilities and addresses inequalities. Decision making on how to balance sometimes competing priorities should be transparent and reflect local opinion, and young people who will be most impacted by these choices are meaningfully involved in the decision making process.

Source: The Children's People and Nature Report

Guiding Lights

Our City, Our World

Schools across Brighton & Hove have worked together to produce a climate change, sustainability and environmental education programme.

The council, schools and local groups work collaboratively to develop and implement a Sustainability, Climate Change and Environmental Curriculum across all phases and types of school. This enables young people to learn about the environment, develop skills to investigate their environment and learn how to make intelligent, informed decisions to care for the environment and support climate justice.

There are also steps to develop action plans to become leading sustainable institutions.

Source: Our City Our World



1.

Establish a Youth Climate Council

A Youth Climate Council could be established made up of interested representatives from children and young people across the district. They would come together on a regular basis to formulate policy proposals or review directions and decisions.

These would then be included in internal processes to create a direct link between policy makers, politicians and the people most likely to be affected by decision making.

The Youth Climate Council could also collaborate with other networks or Youth Councils at different scales, to extend their remit beyond local government.

2.

Provide business support and training

There is a wealth of expertise and understanding in our community about sustainable business practices and how to facilitate business models towards the circular economy. Huntingdonshire District Council could lead on or partner with existing providers to encourage and support businesses in improving the sustainability of their work practices.

This could include training opportunities and establishing networks with the business community to deliver sustainability improvements through cooperation and knowledge sharing. We could also establish metrics and targets to understand progress, and provide incentives for the transition.

3.

Develop advice, training and awareness programmes

Education providers across the district could develop dedicated courses and information material on various aspects of sustainability and better integrate sustainability into the existing curriculum. This could also include providing guidance on small steps local people, community groups, the voluntary sector and businesses can make to reduce their impact.

This could build upon the expertise that already exists across Huntingdonshire, linking with existing organisations, businesses and groups. For example, courses on ecology, rewilding and green infrastructure could link with the Great Fen project. Training on the circular economy could partner with businesses at Alconbury Weald. Training in construction could focus on low carbon methods such as modular housing, cross laminated timber or more traditional building methods such as rammed earth.

