

# Essex Climate Action Annual Report

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2024-25







Clacton to Jaywick cycleway

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# Foreword

**Since 2020, Essex County Council (ECC) has been working with district, borough, city, town and parish councils; our colleagues in the NHS and local universities; our local businesses and of course our residents to help build a cleaner, healthier, more sustainable future for Essex.**

We have made great progress. Highlights this year include the publication of our Local Nature Recovery Strategy; continued large scale investment in renewable energy; and commitments to deliver 85,000 healthy and sustainable new homes through the adoption of the Energy & Carbon (Net Zero) Policy. Government funding has been secured to improve the energy efficiency of fuel poor households, to grow our network of cycling and walking routes and to support the switch to electric vehicles.

Climate action is happening in all parts of our county, led by volunteers and community groups, farmers, business owners, NHS and public sector colleagues and young people. You will find many of their stories in this report and I would like to thank everybody for their continued efforts.

Climate action delivers a host of tangible benefits that are already improving the lives of people in Essex. These include lower household bills from improved energy and water efficiency, solar panels, heat pumps and new homes built to exacting energy standards; better health from warmer, healthier homes, increased walking and cycling, cleaner air and more access to green spaces; and new skills and new jobs in the renewable energy sector, construction and retrofit. Working together, we will make sure everyone in Essex feels these benefits.

This report seeks to recognise all the hard work being done and to inspire us all to redouble our efforts in the months and years to come.

**Cllr Peter Schwier**  
Cabinet Member for Environment, Waste Reduction and Recycling at ECC



# 1. Introduction

## What is the Climate Action Annual Report?

**This annual report shows the great work happening across Essex to deliver a cleaner, healthier, more sustainable environment for all and to make the county more resilient to flooding, overheating and water scarcity.**

In 2020, ECC formed the Essex Climate Action Commission. This is an independent, cross-party body of experts who advise on how the entire county can take action to deliver a cleaner, greener Essex. In July 2021, the Commission published its report [Net Zero: Making Essex Carbon Neutral](#) which set out over 100 recommendations for organisations, business, communities and residents.

ECC responded to the Commission’s recommendations with a [Climate Action Plan](#): first agreed in November 2021 and revised and updated in July 2023. The Plan was revised again in September 2025, to cover the period to 2027/28.

For the last three years (2022, 2023 and 2024) ECC has received an ‘A’ rating from the internationally recognised benchmarking organisation CDP (formerly known as the Carbon Disclosure Project.) This recognises our work on tackling climate change: reducing greenhouse gas emissions and building resilience to increasing climate risks across the county. However, ECC is only one part of the climate story in Essex.

This is our fourth annual climate report, and it shows our progress in unlocking opportunities from climate action for the businesses and people of Essex.

Essex Climate  
Action  
Commission  
set out over



**100**  
**recommendations**  
for a cleaner, healthier, more  
sustainable county



In 2022, 2023  
and 2024 ECC  
received an  
**‘A’ rating**  
from CDP for our  
work on tackling  
climate change

The Intergovernmental Panel on Climate Change (IPCC) continues to highlight the impact that human-made climate change is having on the world, with rising temperatures and sea levels, increasing numbers of extreme weather events, and threats to the supply of food and freshwater. 196 countries have signed the Paris Agreement to cut emissions to limit the average increase in global temperatures to well below 2 degrees, with the aim of limiting the worst damage from our changing climate.

However, the 2024 [Emissions Gap Report](#) published by the United Nations Environment Programme concludes that climate impacts are intensifying globally. It calls on countries to deliver more cuts in emissions, faster. The UK has committed in law to become a net zero country by 2050. This means reducing national greenhouse gas emissions to a low enough level that they are absorbed and are no longer increasing levels of these gases in the atmosphere.

The UK has committed to decarbonise the electricity grid by 2030, which will require massive growth in renewable energy. This will bring substantial numbers of jobs and significant economic growth to Essex. Effective climate action is vital for Essex as it helps us unlock new opportunities and build the resilience we need to deliver our ambitious plans for sustainable economic growth.



European Goldfinch, Essex



## 2. Boosting Jobs and Growing a Sustainable Economy

Essex is in a great position to benefit from the economic opportunities that climate action brings, including job creation and business growth.

In 2024, Essex County Council (along with Norfolk and Suffolk) signed a Memorandum of Understanding (MoU) with the US city of Virginia Beach. The resulting partnership will help Essex businesses access US markets and will support US investment in Essex's clean energy and green innovation hubs.

In 2025, ECC launched the Essex Growth Agency (EGA). This aims to make sure that economic growth in Greater Essex is inclusive, sustainable, and meets our climate goals. The EGA is focused on five priorities:

- Skills for All: investing over £15m in Skills Bootcamps and Connect to Work programmes, to equip residents to join emerging green sectors.
- Inclusive Careers Pathways: a new digital careers tool to match people with green jobs.
- Sustainable Business Support: helping Essex businesses improve their environmental credentials.
- Inward Investment: attracting new investment through events like UKREiiF in May 2025 and the Greater Essex Energy Roundtable in August 2025.
- Rural Economy and Sector Inclusion: supporting the rural economy with a Rural Business Summit in November 2025.

This approach ensures that every business can benefit from the shift to a sustainable economy.

The past year has seen major investments in clean energy across Essex. EDF Renewables UK is beginning construction of its Longfield Solar Farm to power the London Underground and contribute to the National Grid. Eden Renewables got the green light for the 13.8MW Sheepcote solar project near Cressing and construction is expected to start in late 2026.

In September 2025, One Planet Developments gained planning consent for a 130MW solar farm, with a further 223MW under development, along with 500MW of battery storage. In February 2025, IG Renewables was granted consent for a 28MWp solar project in Essex. Taken together, these projects will generate enough electricity to power around 130,000 homes.



**Investing over  
£15m  
in Skills  
Bootcamps and  
Connect to Work  
programmes**



**Consent for  
more than  
670 MW  
of new solar  
generation**



**Enough electricity  
to power around  
130,000  
homes**



### Case Study

"Inks of Essex emerged out of my concern for the environment. I began by hosting eco-workshops aimed at exploring innovative methods for repurposing domestic waste with natural materials. I developed ecologically sound inks to provide a solution to synthetic dyes. The Green Entrepreneurs' Programme imparted essential industry training and encouraged me to perfect my business model, which resulted in me receiving seed funding. This has enabled me to develop more effective ways of expanding my production process to help propel Inks of Essex into the future."

Sylak Ravenspine, an eco-artist based at the theblokhouse studios in Southend-on-Sea and one of the winners of the latest Green Entrepreneurs' Programme. His business 'Inks of Essex' combines historic artefacts with locally sourced materials to create inks.

### Support for Businesses

The Essex Green Entrepreneurs' Programme helps fledgling green businesses get off the ground, with webinars, masterclasses, and mentoring. The programme is delivered by Art Clubbers CIC in partnership with ECC. In 2025, three entrepreneurs secured a total of £10,000 in seed funding: £5,000 went to Ohemaa Cosmetics, a self-care gifting brand blending heritage and innovation. Two runners-up, Rise and Shine, a play café in Mistley, and Inks of Essex, a Southend-based eco-ink manufacturer, each received £2,500.

The Essex Great Start Programme, launched in March 2024, helps Essex businesses start to reduce their impact on the environment. Business can access short video modules on key topics such as measuring your carbon footprint and developing a sustainability action plan. This free content has been viewed over 2,000 times on YouTube.

Over 100 people attended the Green Light Business Success event in May 2025. This event was all about inspiring small and medium sized businesses to take the first steps on their sustainability journey. It included talks, round table workshops covering a wide range of topics and networking opportunities.







## Green Skills

The construction industry is an important growth sector in Essex, and it needs more talent at every level.

2025 saw the launch of the Building a Lasting Legacy programme, a partnership between ECC, Morgan Sindall Construction and the Greater Essex Careers Hub. This programme brings together businesses, councils and the education sector to challenge views of construction and encourage young people to join the industry. The five-year programme is being piloted with three schools – Hylands School, Boswells School and Sandon School.

Small and medium-sized businesses may struggle to take on complex decarbonisation projects in non-domestic buildings. To address this, ECC funded the creation of the PAS2038 training course in partnership with the Retrofit Academy. The self-paced online course covers how to manage retrofit risks and projects effectively. The pilot programme was fully funded for 30 learners, with all spaces filled within 24 hours. This training will improve the quality of retrofit projects, cutting energy bills and carbon and providing economic opportunities for local businesses and residents.

‘I found the PAS2038 course to be...hugely valuable for anyone serious about non-domestic retrofit. It builds perfectly on existing knowledge while opening up a better understanding of the scale and complexity of commercial buildings.’

**Michael Zohouri, Director, Pyramid Eco, The Retrofitters Group Ltd.**

Net Zero new homes under construction, Tendring

## Building Sustainability into Public Procurement

In 2024, consideration of climate impact was included in all ECC tenders of £100,000 or more. ECC has developed climate transition plans for all high-emitting areas of procurement: passenger transport, waste, highways, construction, facilities management and property, domiciliary care services, nursing and residential care services.

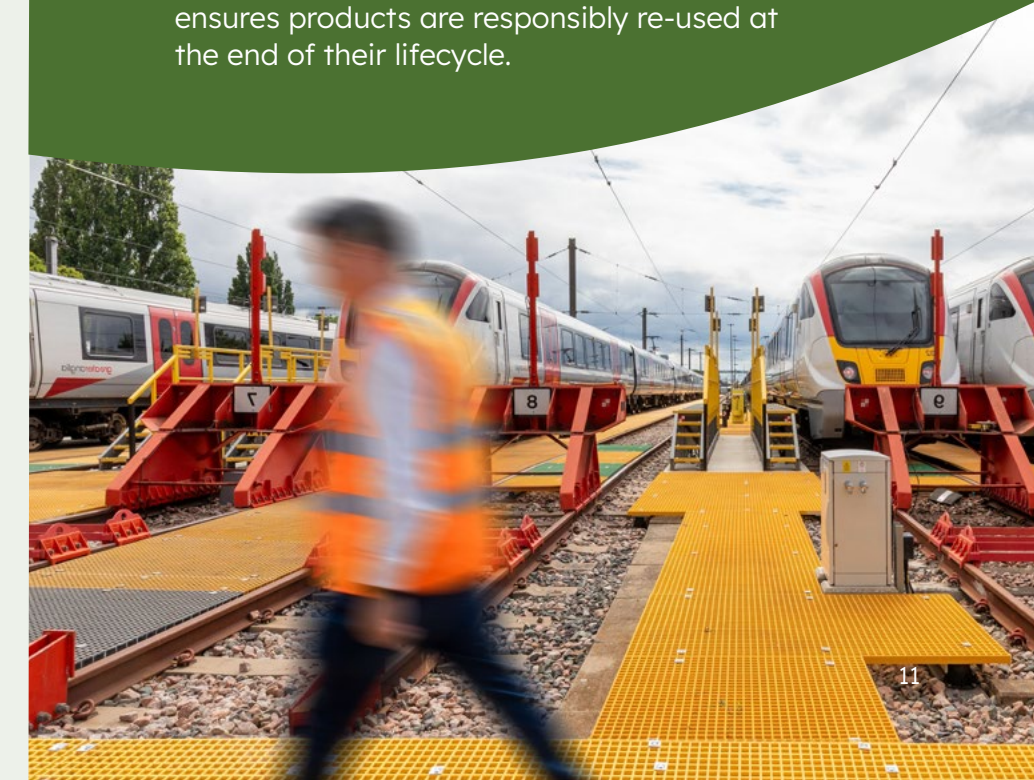
Four Carbon Calculators have been created for Adult Social Care suppliers, to help Essex care providers understand their energy and water use, track the impact of changes and make informed decisions. The Integrated Residential Nursing (IRN) calculator has been tested with 126 out of 150 providers and has generated data on gas, electricity and water use, clinical and general waste, air conditioning and heating oil. This will be used to set a baseline against which to measure future progress, cutting bills and emissions.

## Case Study

Premier Care provides care to 350 Essex residents in their own homes. The company introduced an Environmental Policy and Carbon Reduction Plan in 2024. The first step in the plan was to invest in GPS tracking software that enables more efficient home visit planning. This reduced the average distance between visits to less than 2 miles, down from 3.5 miles and contributed to a 10% cut in travel distance for most care workers. The next step was the creation of special teams who manage double-handed care visits, with the two carers involved meeting at the start of the round and travelling in one car. This has almost halved the number of miles driven on these shifts over the past year and equates to a massive 30% reduction in travel miles. Environmental issues are covered in quarterly training and during inductions, so carers understand the impact of their journeys.

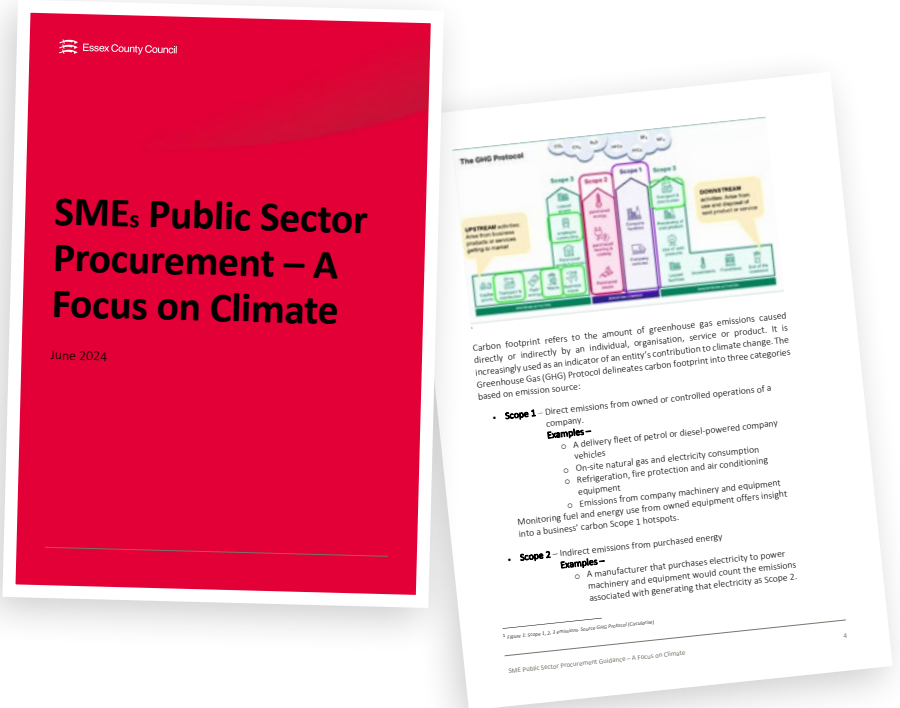
## Case Study

**Dura Composites**, headquartered in Clacton-on-Sea, designs, manufactures and supplies durable, lightweight flooring and walkway solutions from Glass-Reinforced Polymer (GRP) and other composite materials. By re-engineering conventional GRP into a lower-impact alternative, the company has so far saved more than 2.3 million kilograms of raw materials and prevented nearly 8 million kilograms of CO<sub>2</sub>e. This carbon saving is equivalent to planting more than 1,100,000 trees – enough to cover 500 football pitches – and allowing them to grow for a decade. With a clear vision to deliver the lowest-carbon walkways in the world, Dura Composites provides customers with tools such as carbon calculators to quantify project-specific savings, and a mechanical repurposing service that ensures products are responsibly re-used at the end of their lifecycle.





The ‘[SME Climate Guidance](#)’ document is live on the ECC website. This comprehensive guide provides suppliers with an introduction to emissions, the importance of environmental issues and how these affect their businesses. Additionally, it clearly explains how to reach a sustainability target, what to include in a Carbon Reduction Plan (CRP) and provides a list of useful contacts too.



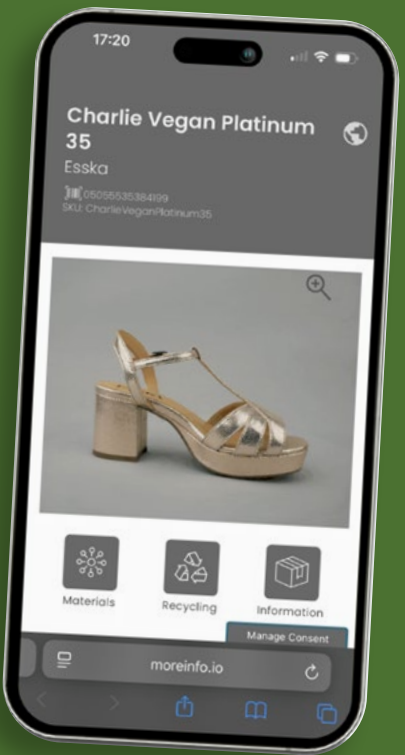
**Case Study**

Buyerdock is an Essex-based technology company delivering real-time product information directly to consumers through a powerful, database-driven web app. By simply scanning a QR code on product packaging, shoppers can instantly access brand stories, product details, ingredients, allergens, recycling guidance, traceability data, sustainability credentials, stockist information, how-to videos, and social links – all without downloading an app. The platform helps manufacturers and retailers stay compliant with complex, evolving regulations while deepening consumer engagement.

The company hosts monthly Circular Economy events, bringing together key contributors and industry leaders, highlighted by a recent anniversary meeting at the House of Lords. Now approaching 1,000 companies and 200 million Stock Keeping Units (SKUs) across 105 countries, Buyerdock transforms product packaging into a dynamic gateway for compliance, sustainability, and consumer engagement worldwide.



**Scan QR code  
for product  
information**



# 3. Nature Recovery

Nature is the cornerstone of our economy. A healthy, thriving natural environment is essential for clean air, clean water supply and productive soils. It reduces the risks from our changing climate - overheating, flooding, subsidence and drought – and builds the resilience we need to support our ambitious plans for growth.

Access to green space plays a key role in physical health and mental wellbeing. Investment in nature is an investment in Essex: making this a wonderful place to live and work, and an attractive and resilient place to build a business.

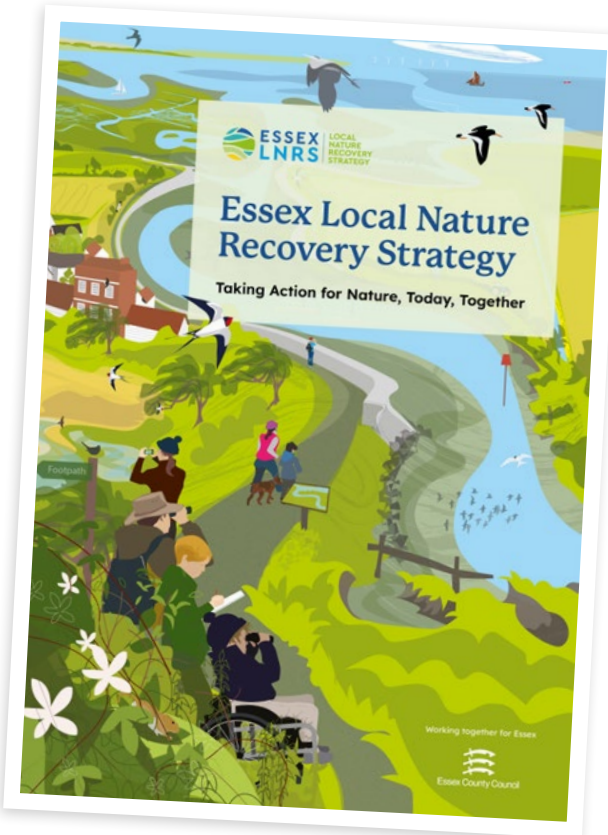
However, nature has been in sharp decline both in Essex and right across the UK. The State of Nature report, an assessment of the UK’s biodiversity published in 2023, concluded that one in six species is threatened with extinction. In response to this situation, the UK government has made a commitment to halt and reverse the decline of biodiversity.

The Environment Act 2021 requires the production of 48 Local Nature Recovery Strategies (LNRS) across England to form a nation-wide Nature Recovery Network.

## Nature Recovery

Essex’s Local Nature Recovery Strategy (LNRS) was published on 10th July 2025, making it one of the first in England. The Essex LNRS was produced in collaboration with the 12 district, borough and city councils, Thurrock and Southend-on-Sea Councils; Natural England; the Essex Local Nature Partnership; and a wide range of local stakeholders, including farmers and landowners, environmental and community groups, parish and town councils. The main purpose of Essex’s LNRS is to identify the locations for the creation and enhancement of different habitats that are most likely to provide the greatest benefit for nature and the wider environment.

The Local Nature Partnership (LNP) has used a £40,000 grant from ECC to set up a community fund to support local action for nature. Community groups, charities, schools and other local organisations can apply for grants of £500 to £2,000 to support projects that contribute to local nature recovery and community wellbeing. This will support up to 80 community groups to improve access to green spaces and enhance biodiversity through habitat creation and restoration. The fund will be open until 31st December 2025 (or sooner if the pot is used up).



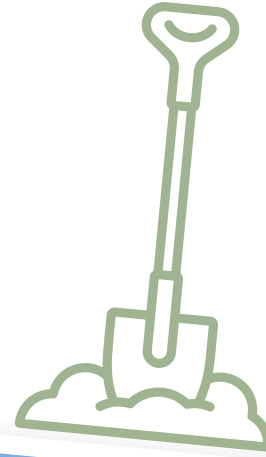


## Case Study

A 100-hectare former agricultural site in Brentwood is being transformed into Hole Farm Community Woodland.

Delivered through a partnership between National Highways and Forestry England as part of the Lower Thames Crossing project, it will be the largest community woodland in the East of England. 150,000 trees have already been planted, with help from volunteers from the local community and local schools, and three new ponds have been created.

The construction site, which is being built by one of the project's delivery partners, Balfour Beatty, is entirely diesel-free, with machinery and equipment powered by hydrogen, electric, and other low-carbon fuels. The work is being carried out by small and medium-sized businesses from within 20 miles of the woodland.



## The LARGEST Community woodland in the East of England



ECC has been working since 2023 in a partnership, led by the Zoological Society of London and with many other partners in Essex and Kent, to develop the Endangered Living Seascapes Programme called 'Transforming the Thames'. This proposes an ambitious restoration project in the Greater Thames Estuary to re-connect the currently fragmented landscape through habitat protection, repair and restoration. The project has recently been awarded over £3.7million to fund action over the next 5 years including the restoration of over 320 hectares of intertidal seagrass meadows, saltmarsh, native oyster reef, coastal brazing marsh, sand and shingle, and saline lagoon habitat. The project aims to build local capacity to protect and enhance coastal habitats and to inspire the local community to get involved through volunteering. The long-term aim is to develop a rolling programme of additional shovel - ready projects.



## Case Study

### Blackwater and Colne estuary species recovery project

One of the big challenges facing Essex's coastal grazing marshes is a lack of freshwater. Dry springs and dry winters put lots of pressure on species such as lapwing and redshank that depend on the marshes to be in optimum condition to enable successful breeding. The predictions are for this to only get worse, as the climate continues to change. That's why the RSPB has been working with Essex Wildlife Trust (EWT) and two private landowners on a series of interventions to reduce dependence on winter rainfall. With funding from Natural England, earthworks were carried out at EWT Howland Marsh and RSPB Old Hall Marshes to improve water storage on the reserves. However, it is the installation of six solar pumps across four sites that will really increase the sites' resilience to climate change. These pumps trickle water on to the marshes throughout the breeding season, ensuring that even in the driest spring conditions can be maintained for these species, enabling them to nest and raise young successfully. Also, these pumps reduce the RPSB's local dependence on diesel pumps and help to lower its carbon footprint.

## Lapwing nest at Howland Marsh





## Tree Planting

A total of 1,099,295 trees has been planted across the county, as part of a five-year tree planting scheme. 476,200 of these were planted by ECC's Essex Forest Initiative, exceeding its target of 375,000 trees. A further 623,095 trees were planted by members of the Essex Forest Partnership, which includes other local authorities, parish councils, private landowners and individual residents. Combined, there are now more than 120 hectares of new woodland, 57km of new hedgerows and more than 4200 new urban trees in Essex.

More than 1000 volunteers took part in tree-planting over five years, and funding has been secured for the maintenance of new urban trees and management of both existing and new woodland. During 2024/25, ECC also established two community tree nurseries with the aim of improving local woodland resilience and increasing rare UK native species' stock.

## Epping Forest

**1,099,205**  
trees planted  
by more than  
**1000**  
volunteers  
over the past  
five years

## Case Study

Miranda Walk Mindful and Wildflower Garden, a vibrant community greening project was launched in Greenstead, Colchester, one of Essex's most deprived areas. The initiative aims to boost social cohesion, mental wellbeing, and local pride. The project includes raised bed planters for residents to grow vegetables, herbs, and flowers, two benches offering a welcoming space for rest and conversation, 200m<sup>2</sup> of wildflower meadow to enhance biodiversity and three insect hides to support solitary bees and other pollinators. Part-funded by the National Highways Social Value Fund, and supported by ECC, the project was delivered at a cost of just under £8,500. Since its launch, the space has flourished both literally and socially. Local group Greenstead Growers, with support from The Active Wellbeing Society, has taken ownership of its upkeep. Residents now use the space for gardening, mental wellbeing chats, and community connection, transforming it into a cherished local asset.



## Working with Farmers

ECC provided a grant of £10,000 to help establish the Tendring Farm Cluster in Northeast Essex. The cluster is led by farmers pioneering sustainable agricultural practices and utilising environmental grants. This puts them in an excellent position to convene the local farming community and offer tailored advice to help their peers move towards more sustainable practices in line with aims of the Local Nature Recovery Strategy.

## Biodiversity Plan

In line with the strengthened biodiversity duty introduced by the Environment Act 2021, all public sector organisations must produce a biodiversity report to show how they will conserve and enhance biodiversity.

ECC's [Biodiversity Plan](#) embeds biodiversity into day-to-day decisions about how the Council manages land, delivers services, and engages with communities. The plan sets out 107 actions including low- or no-cost improvements such as adapting grounds maintenance regimes to support pollinators and wildlife. Other actions focus on creating new habitats and improving the condition of existing ones, contributing to wider ecological networks.



## Flood Mitigation

A well-planned garden can help reduce the impacts of extreme weather and help nature thrive. To support this, ECC has launched a ‘Weather Wise Gardens’ campaign featuring a leaflet with 12 simple steps people can take at home to benefit nature and reduce flooding. Each step includes guidance for installation, approximate cost and time needed for installation and added benefits.

13 schools across Essex were chosen to showcase a BioScapes SuDS planter on their school grounds. Funded by ECC, these planters hook up to drainpipes and hold back water which would otherwise go into the sewer network, helping to reduce surface water flooding. The planters provide habitats for animals and insects including butterflies, woodlice and hedgehogs. The children learned about the biodiversity benefits of the planters and were involved in the planting. The SuDS planters are accompanied by a large outdoor poster on what parents can do at home to make their gardens more climate resilient, linking back to the Weather Wise Gardens leaflet.

ECC is currently working on phase two of this project with funding from Anglian Water. This will include rain gauges on the planters to record local rainfall data which will plug into the geography year 4 curriculum.



**13 schools**  
across Essex  
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**BioScapes**  
**SuDS**  
**planter**



## Saltmarsh Flux Tower

Essex Wildlife Trust is hosting a Saltmarsh Flux Tower at their Abbots Hall nature reserve, in the Blackwater estuary. This tower is part of a pioneering network of just six flux towers currently operating across English saltmarshes as part of a collaboration between the Environment Agency and UK Centre for Ecology & Hydrology, funded by Defra.

Flux towers measure how much carbon dioxide has been absorbed by a saltmarsh and how it changes over time. Research suggests that saltmarshes absorb carbon during the summer months, when there is a lot of above ground vegetation, and release carbon in the winter months when vegetation growth is slow. Understanding how saltmarshes absorb carbon dioxide will help the UK government develop policies to mitigate emissions.

The results from the flux tower network can also be used in the development of the Saltmarsh Code, which is a rigorous and scientifically based voluntary certification standard, similar to the Peatland Code and the Woodland Code. The Saltmarsh Code will enable verified saltmarsh carbon credits to be confidently purchased, which can provide an income stream for saltmarsh restoration projects.

**Saltmarsh in the Blackwater Estuary**





Hollymead Square

## 4. Built Environment

The construction industry in Essex is slowly adapting to meet the new Future Homes Standard. A draft of the standard was published in January 2025, with a further review due in Autumn 2025. Under this standard, new build homes must have air source heat pumps instead of gas boilers and, from 2027, most will have solar panels. This requires new skills and creates new jobs and business opportunities.

Essex is at the forefront of developing planning policies to drive down carbon emissions from new developments. This pioneering work covers all 15 authorities of Greater Essex, setting a consistent approach to planning policy in an area that most local authorities in Britain have yet to tackle. All the Essex planning authorities and ECC continue to work together to ensure that best practice guidance on building low energy use, low emission, healthy homes is available on the [Essex Design Guide](#).

### Case Study

Hollymead Square is a new community in Newport, Essex, offering sustainable, low-carbon living. The project is a collaboration between The Hill Group, Octopus Energy, and Clarion Housing Group. The 89 homes feature high levels of insulation, solar panels, air source heat pumps, battery storage systems and smart energy tech. These homes are up to 60% cheaper to run than older properties and they benefit from the Octopus zero bills guarantee for at least five years. The development features a range of measures to promote biodiversity including hedgehog highways, bird and bat boxes, and thoughtfully landscaped green corridors. The site layout prioritises pedestrian and cyclist access, with connections to local amenities and transport links.

# 85,000

healthy, efficient  
climate resilient  
new homes by 2050



### New Homes

Four planning authorities across Essex have included the [Essex Energy & Carbon \(Net Zero\) Policy](#) into their local plan reviews. This puts them on track to deliver 77,500 high quality, healthy, energy efficient, climate resilient homes by 2050. When combined with the homes at Tendring Colchester Borders Garden Community, this is 85,000 new homes which is almost 30% of all new houses expected in Essex by 2055.

Colchester and Tendring Councils have adopted an ambitious policy framework for new homes at the Tendring Colchester Borders Garden Community, a sustainable settlement of nearly 8,000 homes, schools, community facilities and employment spaces.

All new homes will be net zero in operation for both carbon emissions and energy use and annual average energy demand across the community will be matched by renewable energy generated on-site. Future planning applications at the site will be assessed against these standards.

The benefits for residents include reduced energy bills, improved health and well-being, better indoor air quality, and increased green spaces to manage flood risk.

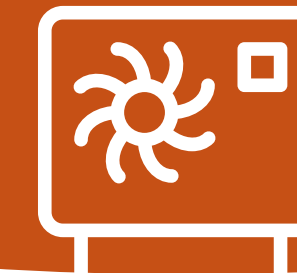
The policy is underpinned by evidence that shows that it is technically feasible and legally justified for councils to set energy efficiency standards that go beyond national requirements. This evidence has been developed by ECC's Climate and Planning Unit and is available to any local authority or stakeholder via the [Essex Design Guide](#).

### Case Study

Oakview Drive in Harlow is a contemporary residential development that transforms a former school site into a vibrant, sustainable community of 35 homes, blending private and affordable housing.

Delivered by Essex Housing in partnership with Chelmer Housing Partnership, the scheme prioritises energy efficiency, biodiversity, and inclusive design.

All homes achieve EPC A ratings through the integration of air source heat pumps, solar PV panels, and underfloor heating, while landscaped green corridors and retained mature oak trees deliver a net biodiversity gain. With its focus on low-carbon living, accessibility, and architectural sensitivity to Harlow's New Town character, Oakview Drive represents a benchmark for sustainable suburban regeneration in Essex.



ECC is also supporting a new standard for water efficiency in new homes. Initial evidence suggests a standard of 85 litres per person per day (l/p/d) is possible through the use of water efficient fittings as included in the [Shared Standard in Water Efficiency for Local Plans](#), written in collaboration with the region's water companies, the Environment Agency and Natural England. This compares to 152 l/p/d used by the typical home in Essex in 2024.



## Tackling Embodied Carbon Emissions

The carbon emissions of a building are not just linked to the energy used for heating and lighting. There are also significant emissions associated with raw material supply, manufacturing transport, construction, final demolition and disposal.

ECC has worked with five expert consultancies (Levitt Bernstein, Etude, Hawkins Brown, Introba and Currie & Brown) to develop a comprehensive, costed [Embodied Carbon Policy Study](#). The study has been translated into the Essex [Embodied Carbon and Circular Economy planning policy](#) which includes targets for ‘upfront’ emissions, achievable through simple design and material choices at minimal or no extra cost. This policy is designed to be integrated into local plans across Greater Essex and can be found on the Essex Design Guide.

The Hargrave House development in Great Baddow, Chelmsford, is Essex County Council’s first net zero carbon housing scheme, setting a precedent for future sustainable developments across the county. Designed by Stanley Bragg Architects and delivered by Essex Housing, the project consists of ten family homes alongside a new facility for the children’s mental health charity Kids Inspire. By integrating air source heat pumps, mechanical ventilation with heat recovery, solar PV panels, and low-carbon construction materials. Hargrave House is designed to exceed Future Homes Standards and dramatically reduce both operational and embodied carbon. Native planting and biodiversity-friendly green spaces are integrated into the masterplan along with sustainable drainage systems (SuDS) to manage surface water and reduce flood risk.



Hargrave House

## Public Sector Retrofit

In April 2025, Uttlesford District Council was awarded £630,000 in funding from the government’s Public Sector Decarbonisation Scheme to radically improve the energy efficiency of its main offices in Saffron Walden. The heat decarbonisation plan includes installing draughtproofing, roof void insulation and secondary glazing, replacing boilers with an air source heat pump system, upgrading radiators and pipework, and installing solar PV panels. The project will generate an anticipated carbon saving of 90 tonnes of CO<sub>2</sub> per year, reducing the building’s carbon footprint by over 50%. Procurement of contractors will commence in autumn 2025 and the project is due to complete in September 2026.

As part of its plan to achieve net zero by 2035, the University of Essex has set a target for 25% of its electricity to be from on-site renewable sources by 2028, to reduce costs and increase resilience. The University recently completed the installation of new solar PV at its Colchester Campus, on the South Courts student accommodation, adding to a number of solar PV installations already in place across its campuses. The project has delivered a generation capacity of 791kW and is forecast to save 125 tonnes of CO<sub>2</sub> emissions annually. Based on utility readings to date, it is expected that this will reduce utilities bills by >£120k each year. The next phase of solar installs is now being planned.





### Retrofitting Existing Homes

Most of the more than 800,000 homes in Essex need some form of upgrade to make them more energy efficient. This has the potential to drive significant economic growth with new jobs, skills training and opportunities for construction companies in Essex. It also offers residents the chance to tackle cold homes, cut energy bills and live in warm, comfortable and healthy homes.

In May 2024, all the councils in Essex worked together to create the first county-wide Energy Company Obligation (ECO4) Flexible Eligibility Scheme. Under this scheme, families with an income below £31k a year or with eligible health conditions, who live in a cold home (EPC D or below) can apply for grants for insulation and new heating systems. Over 175 households have accessed grant funding through the ECO4 Flex scheme which runs until March 2026. Schemes such as Solar Together, Switch Together the first heat pump collective scheme run in the country, and partnerships with organisations such as Essex Community Energy CIC, will also drive forward the scale and pace of retrofit activities within the county.

ECC has also led a successful bid for £6 million under the Warm Homes Local Grant (WHLG) scheme, part of the government's Warm Homes Plan which aims to upgrade 5 million UK homes over the next five years. Under this scheme, families with an income of less than £36k, living in homes with an EPC of D or below, can apply for up to £15,000 of funding for energy performance upgrades (like insulation, draught proofing and solar panels) and another £15,000 for low-carbon heating systems, such as heat pumps. The scheme is expected to go live in autumn 2025, with an opening pipeline of at least 150 eligible properties.

In partnership with Happy Energy Solutions Ltd, ECC launched [Heat Essex](#), an online, one stop shop for energy efficiency and carbon saving grants. Support available through Heat Essex includes energy efficiency advice to help lower fuel bills or switch energy suppliers to a cheaper tariff.



**175**  
households  
improved  
through ECO4  
Flex scheme



Successful bid for  
**£6million**  
under the Warm  
Homes Local Grant  
(WHLG)



up to  
**£15,000**  
per household of  
funding for energy  
performance  
upgrades





# 5. Energy

## Renewable Energy

Essex is well placed to benefit from the Government’s commitment to deliver clean power by 2030. Essex is at the heart of one of the world’s largest markets for offshore wind, with more than 5GW of offshore wind farms in development in the Southern North Sea.

Essex is also at the forefront of significant solar energy development, including Longfield Solar Farm, which will provide power for 96,000 homes, along with Crays Hall, Birch, Ockendon and Crouch solar farms. Applications are also being progressed for the Grasslands and Hedgehog Grove solar farms.

Investment in onshore renewable energy infrastructure such as hydrogen, biomass and battery storage is also growing. This includes [Thames Estuary’s vision](#) to become a leading hydrogen ecosystem, with Thurrock and Purfleet, Tilbury and Southend all recognised for their potential. RWE is currently planning two green hydrogen electrolyzers in Essex, one at [Port of Tilbury](#) and one at the [Haltermann Carless](#) facility in Harwich.

[Freeport East Harwich](#) is home to Greater Essex’s other major port and offers potential for clean energy production with supporting business and infrastructure. With the development of its [Green Energy Hub](#) (Bathside Bay), the Freeport will provide critical port infrastructure, boost the region’s renewable energy capacity, as well as provide access to markets in the rest of the UK and Europe.

This expansion of renewable energy generation is matched by investment in several Nationally Significant Infrastructure Projects (NSIPs) which will strengthen the electricity transmission network. These investments, including the [Norwich to Tilbury](#), [Twinstead Tee](#) and [Sea Link](#) projects, are critical to support the UK’s goal of Clean Power by 2030 and to underpin local economic growth.



## Local Energy that benefits communities

Essex is also well placed to benefit from the government’s commitment to generate more energy locally and support community energy. Local energy can bring benefits for the local community in the form of lower bills, revenue from local generation and greater control over energy supply.

ECC has supported the set up of a network of 27 community energy groups across Essex, helping communities to develop and benefit from local renewable energy projects. Eight of these groups have become Community Benefit Societies. ECC has been recognised nationally by Community Energy England and the Department for Energy Security and Net Zero (DESNZ) for its achievements in scaling up community energy through collaboration between local government, communities and the private sector. ECC has supported communities to access grant funding totalling £1.14 million for their own renewables projects through schemes such as the Community Energy Fund (now the Great British Energy Community Fund).

We are now building on our community energy programme to work with residents and local groups to develop a pipeline of small and medium sized renewable generation projects that are ready for investment.

ECC is also working closely with developers to secure community benefit funds and community ownership shares of solar and onshore wind farm projects to secure more of the value of these projects for local people. We have already secured a £5.72 million community benefit fund and £2.1 million for education supply chain, skills and employment funding in connection with the development of Longfield Solar Farm.

In partnership with [The Great Collaboration](#), ECC delivered three community-led energy planning workshops in Maldon Town, Great Dunmow, and Colchester. These sessions brought together residents, local councillors, and business owners to explore the types of energy projects they would like to see in their communities. Proposals ranged from a community-owned wind turbine in Wivenhoe, to solar canopies over a community hall car park in Great Dunmow, and a local retrofit strategy using thermal imaging cameras to guide energy efficiency improvements. Following the success of this pilot phase, this initiative will be rolled out more widely to interested community groups, parish and town councils across the county.



**27**  
**community**  
**energy**  
**groups**  
across Essex



**£5.72**  
**million**  
**community**  
**benefit**  
**fund from**  
**Longfield**  
**Solar Farm**



Community Energy Colchester (CEC), a long-standing group in Colchester, has significantly expanded its scope following the community-led energy planning workshop. CEC is now actively developing a range of community-owned projects, including:

- Solar PV installation on the rooftop of Colchester Hospital
- A ground source heat pump system for a local school in Wivenhoe
- A solar array on a disused landfill site
- A potential onshore wind turbine near Wivenhoe

All of these projects are designed to deliver long-term environmental and social value to the local area.

Since 2021 ECC has helped over 2,700 households source solar panels, batteries and EV chargers through the Solar Together bulk buying scheme, adding 11MW of local renewable energy and avoiding 2,432 tonnes of CO<sub>2</sub> annually. The 2025 scheme is now underway, and we hope to deliver a further 500 installations.

**On Solar Together:**

"If you can afford it, it's definitely worth it. It's not just about cost savings; it's about playing our part in environmental stewardship."

**Jonathan Wright, a Clacton resident who had solar panels installed through Solar Together**



Over  
**2,700** solar  
installations  
through Solar  
Together

Following the success of that scheme, we launched Switch Together, the first collective heat pump purchasing scheme in the country, which is currently delivering some 100 new heat pumps in homes in Essex totalling 809kW of installed capacity, saving 191 tonnes of CO<sub>2</sub> in the first year.

**On Switch Together:**

"The price of oil is going to go up and up so with the installation of the heat pump we felt we were going to do something for the planet."

**Mick Mockford, a Frinton-on-Sea resident who had an air source heat pump installed through Switch Together**



[The Jaywick and District Energy Hub](#), was set up in August 2024 to provide trusted information, advice, and support on energy efficiency to residents in a face-to-face setting. The Hub is a collaboration between ECC, Tendring District Council, Peabody and Citizens Advice. Support on offer includes advice on home energy efficiency, grant funding, DIY measures, and income maximisation as well as in-home energy efficiency visits from Groundwork East's Green Doctor. The Hub is staffed by specialist advisers and community energy champions from Jaywick Sands, who have been trained as part of the Communipower project. In the last year, the Hub has welcomed more than 180 clients, reaching over 250 residents including at least 110 children. Clients have received direct support in the form of more than £15k of food and fuel vouchers and 50 practical home energy visits and have been helped to apply for more than £300,000 in unclaimed benefits.



## Energy Planning & Innovation

Demand for electricity in Essex is expected to grow significantly in the coming years, driven by increased consumption from new homes and businesses and the push to decarbonise buildings and transport to meet the UK's carbon reduction targets. This is a key opportunity for jobs and growth.

This highlights the need for accurate energy planning, to understand future demand and plan for the right supply in the right place. This planning is taking place at both a local and regional level.

Partners from across Essex are developing a Local Area Energy Plan (LAEP): a strategic plan for balancing future energy demand, including power, heat, transport, with renewable generation. This will feed into the new regional and national network planning processes which support the Government's ambition for the country to be supplied with clean power by 2030.

The Regional Energy Strategic Plan (RESP) is being developed by the new National Energy System Operator (NESO). The RESP for the Eastern region will cover Essex, Suffolk and Norfolk and ECC and other partners have been asked to feed in priorities for growth and strategic investment need. Work is underway on tRESP, a transitional plan being developed ahead of a more enduring RESP in 2027, which aims to map the pathway to 2050.

The shift to renewable energy and more local generation also requires innovation. ECC has worked with partners in the private and community sectors to secure £201,220 in funding from Innovate UK's Net Zero Living programme, to explore ways of scaling up investment in local energy projects. The project partners have created a new Community Interest Company (CIC), Essex Community Energy CIC (ECE CIC), that is working on community led solar and storage projects.

ECC has also partnered with the private and community sectors to secure over £6m grant funding from the Ofgem Strategic Innovation



**Over  
£10 million  
invested in innovative  
solutions for fuel poor  
households**

Fund (SIF) alongside £4.5m match funding from private sector partners. This funds the SHIELD (Smart Heat and Intelligent Energy in Low Income Districts) project rolling out low carbon heat and power solutions to fuel-poor households in social housing, using innovative technology. The project combines renewable energy generation – solar and storage – with heat from distributed data centre units, cutting the cost of energy in homes, whilst boosting local digital capacity. SHIELD is delivered by a large partnership of organisations including UK Power Networks, ECC, UK Community Works CIC, Power Circle Projects Ltd, Citizens' Advice Essex, Thermify, Urban Chain and several social landlords.

ECC sits on the Board of the Greater South East Net Zero Hub. The Hub is a regional, government funded initiative that works with local authorities and other public sector organisations and their stakeholders to support the development and financing of local net zero projects.

## Renewable Energy on the Public Estate

ECC completed five solar installs on its estate during 24/25. A total of 549 panels were installed, funded by the Public Sector Decarbonisation Scheme round three, with a total installed capacity of 219 KW. One of the sites was Cold Norton Primary School where cavity wall and roof insulation was installed, along with solar panels and an air source heat pump. The school has so far achieved 37% energy self-sufficiency, directly consuming more than 7300 kwh of solar energy.

ECC has also secured £75,000 grant funding from the Greater Southeast Net Zero Hub's Investment Readiness Fund to undertake a feasibility study for solar development on ECC land. ECC is also exploring opportunities for solar canopies at its park and ride sites and rooftop solar across its buildings.

Councils across North Essex are pulling together an investment pipeline of potential renewable generation projects on council-owned land and are planning to work with the Greater Southeast Net Zero Hub on assessing feasibility.





# 6. Transport and Active Travel



In Essex, we are changing how we think about transport, seeing it as an enabler of other activities, including environmental improvements, rather than an end in itself. The new draft statutory Local Transport Plan for Essex. “A Better Connected Essex” is built around the principles of ‘Avoid, Shift and Improve’:

- **‘Avoid’** – avoid or reduce unnecessary journeys particularly over short distances.
- **‘Shift’** – make it easier for people to shift to more sustainable modes of transport, such as walking, cycling, public transport or train; and
- **‘Improve’** - where road journeys are essential, improve vehicle efficiency by encouraging the use of electric vehicles and alternative fuels.

A consultation on the draft plan was carried out during the summer of 2025 and the responses to the consultation are currently being considered. ‘A Better Connected Essex’ is supported by a suite of more specific documents such as the [Bus Service Improvement Plan](#) (adopted in 2021) the new [Cycling Strategy](#) (adopted in September 2025), and the [Electric Vehicle ChargePoint Strategy](#) (adopted 2024).

Essex County Council has secured £5.49 million in 2025/26 from Active Travel England tranche six to improve walking, wheeling and cycling across the county. This builds on the £19.76 million we have received since 2020. The funding is invested in active travel networks across Essex and has delivered new routes or supporting infrastructure in Braintree, Brentwood, Chelmsford, Clacton, Colchester, Harlow and Wickford.

## Air Quality Strategy

ECC has worked with Essex councils, NHS and public sector partners to develop a new Air Quality Strategy for Greater Essex (adopted in September 2025). The strategy aims to contribute to improved health and reduced health inequalities by reducing exposure to poor air quality. It also seeks to raise awareness of air pollution as the largest environmental risk to health, linked to an estimated 1 in 20 deaths in Essex. The strategy covers both indoor air pollution – such as mould spores, aerosols, cleaning products and emissions from woodburning stoves – and outdoor air pollution, much of which is linked to road traffic. It is supported by an action plan to improve air quality and measure progress and will be hosted on the [Essex Air website](#).



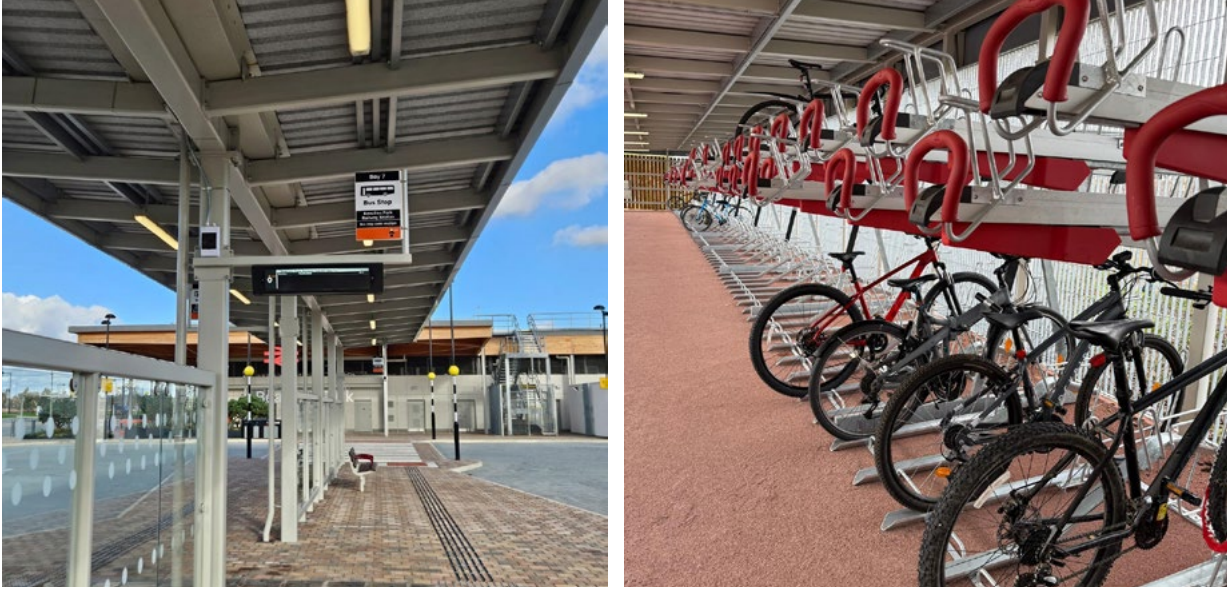
## Case Study

Year 6 pupils at Dunmow St Mary's Primary School have been learning about air pollution as part of a district-wide clean air initiative. The school hosted an anti-idling event in collaboration with MP Smarter Travel and Uttlesford District Council's Climate Change Team. Pupils attended a briefing about the dangers of engine idling - which increases exhaust fumes, harms health and damages the environment - and the benefits of switching off engines when vehicles are stationary. The students then took to the road area near the school gates to speak to drivers. 11 schools across Uttlesford district are taking part in the scheme which includes ongoing support to encourage walking and cycling, including free cycle training, banners and events discouraging idling, and educational materials such as leaflets and assemblies. More information, including other upcoming initiatives, at: [www.uttlesford.gov.uk/saffron-walden-clean-air-project](http://www.uttlesford.gov.uk/saffron-walden-clean-air-project).



### Rail Travel

The new Beaulieu Park station in Chelmsford opened in October 2025. This is the first new railway station on the Great Eastern Main Line in over 100 years. The station is served by pedestrian and cycle access routes, with parking for 500 bikes, as well as a bus interchange for local services.



The Essex and South Suffolk Community Rail Partnership promotes a shift to rail travel and involves the community through projects that promote ‘wilding’ and support for biodiversity. This includes support for the Friends of Rochford Station volunteers who have transformed the station into a wildlife haven with wildflowers, bird boxes, and insect hotels. Their efforts earned accreditation from Greater Anglia’s Wildlife Friendly Stations Scheme.

### Parking for 500 bikes



### Bus interchange for local services



### Support for Cycling

Grassroots organisations across Essex have benefited from £118,426 of ECC funding through the Essex Cycle Grant. The grant scheme aims to get more people cycling by supporting a wide range of initiatives such as projects to build bike confidence, improve access to bikes and upskill individuals in bike maintenance, refurbishment and mechanics. The grants are designed to fund long-term, sustainable projects that aim to become self-sufficient within one to five years, depending on their scale.

Between August 24 - July 25, ECC’s Bikeability team delivered high-quality cycle training to nearly 12,000 individuals, equipping them with the confidence and skills needed to cycle safely and independently. This includes training in every school across the county and free cycle training for adults, making cycling accessible to all age groups and communities.

In the past year, a new initiative was launched to support children who do not have access to a roadworthy bike. Through the Bikeability schools’ programme, a fleet of 30 bikes was introduced for use during training sessions. This has significantly increased participation enabling more children to learn vital cycling skills that foster independence, improve health, and enhance road safety. The team also delivers Dr Bike events in schools and communities, offering free bike repairs to ensure that more bikes are safe and ready for everyday use and Bikeability training. These events help remove barriers to cycling and promote a culture of active travel across Essex.



### Case Study

Now in its fourth year, Essex Pedal Power is a community cycling initiative operating in Clacton & Jaywick Sands, Harwich & Dovercourt, Colchester, Basildon, Canvey Island and Harlow. In addition to over 4000 bikes given to eligible residents, the programme provides volunteer opportunities and training sessions. EPP aims to increase health and wellbeing, improve access to training, jobs and employment and create resilience and connectedness in some of the county’s most disadvantaged communities.

Independent evaluations show that free bike schemes deliver economic, social, and environmental benefits worth £11.80 for every £1 invested, including saving the NHS more than £1 million per year through reduced cases of premature death and non-communicable diseases.



Case Study

Uttlesford District Council is coming to the end of its Clean Air project in Saffron Walden, made possible by £517,000 of funding from DEFRA. The shared bike hire schemes are expanding to surrounding villages including Littlebury, where residents use bikes for journeys to the train station and shopping in Saffron Walden. Over 5,300 trips were recorded between April 2024 and July 2025, with 597 trips in July 2025 alone, a 77% increase on the same time last year. Further locations for bike hire are being sought in collaboration with housing developers.

A longer-term bike hire scheme has been made available to those who live, work or study within Uttlesford district. [Uttlesford Bike Club](#) provides the opportunity to rent a bike or e-bike for up to six months at subsidised rates to see if it works for you. The bike is delivered to your home or work address, and you pay monthly with no deposit and can stop at any time.

A Community Walking and Cycling map for Saffron Walden has also been published as part of this project. On 15th June Uttlesford held a community bike ride and fête in Saffron Walden. Now in its second year, more than 60 cyclists joined the mass bike ride through the town including families with children as young as five. The initiative aimed to encourage more people to cycle and boost their confidence on the road.

£517,000  
of funding from  
DEFRA

Schools

A Travel Plan is a strategic tool used by schools to reduce car dependency by promoting walking, cycling, and the use of public transport. During the 2024–25 academic year, ECC supported 57 schools to develop tailored plans, following the online [STARS framework](#) which all Essex schools can access for free. 44 of these schools went on to achieve national accreditation for their plans.

ECC is currently piloting the [HomeRun STEP](#) (School Travel Evaluation Platform), with £10,645 of funding from Innovate UK. The aim is to understand patterns of school-run travel and identify opportunities to support more sustainable journeys. The platform allows for in-depth modelling of 217,000 pupil journeys across 518 schools and highlights which schools and areas would benefit most from specific interventions. This supports a more targeted approach to active travel measures, delivering greater value for money, all without any pre-work with the schools.

A Safer School Street is designed to improve the environment outside school gates, making it easier and safer for students to walk, wheel, or cycle to school. This idea is rooted in the Healthy Streets Approach, an evidence-based framework to transform streets into healthier, more welcoming spaces for everyone.

Case Study

Living Streets, the UK charity for everyday walking, visited Ashingdon Primary Academy in July 2025 to carry out a School Route Audit, where pupils go on a local walk and have their say about how their streets could be improved. The school was chosen due to its location on a busy 40mph road, with narrow, uneven footways and lack of crossings.

The Year 4 pupils who took part in the audit commented:

“I feel safer here (on a wider part of the pavement) as the cars are not as close.”

“My mum has to walk in the road some days because there’s not enough room for her to walk next to me and my sister on the pavement when the bushes are overgrown.”

“You can’t stop or talk with your friends because it is too loud and unsafe.”

All children agreed that they had a better understanding of the road safety issues outside their school because of the School Route Audit.





A variety of improvements can be introduced as part of a Safer School Street, including (but not limited to):

- raised zebra crossings
- 20mph speed limits
- speed cushions
- trees and planting
- extended barriers
- public realm enhancements such as cycle parking, benches, and improved lighting

Over the past year,  
ECC has partnered with  
**17 schools**  
successfully completing six Safer  
Streets programmes, with three  
more on track for completion

In addition, ECC has launched a pilot School Safety Enforcement Officer Patrol, focusing on areas with the most challenging traffic conditions. This approach works by encouraging drivers who park obstructively—even in areas without formal restrictions—to reconsider their behaviour and help create safer, more accessible school environments.



Strider, Living Streets' mascot

### Case Study

Living Streets is the UK charity for everyday walking and the people behind WOW – the walk to school challenge.

Thanks to £72,000 of funding from ECC, Living Streets was able to launch WOW in 29 primary schools across Essex. As part of the challenge, pupils record how they get to school on the WOW Travel Tracker, with badges for those who walk, wheel, cycle or scoot to school.

Celebration assemblies were delivered in schools with the most engagement during June, to thank pupils and staff for their dedication to travelling to school sustainably. Living Streets' mascot, Strider, made a guest appearance.

In Takeley Primary School, the number of journeys driven all the way to school decreased by 26 percentage points and those walked or wheeled all the way increased by seven percentage points. The picture was similar at Helena Romanes Primary School, with a reduction of 25 percentage points in the number of car journeys and a six percent increase in walking and wheeling rates, reducing congestion and creating a safer environment at the school gates.

### Travel Planning

The Sustainable Travel Planning team has evaluated 27 Travel Plans submitted for new housing developments between August 24 and July 25. These plans, which are required for developments of more than 80 dwellings, include targets to reduce car use as well as site-specific measures to support active travel to and from the site. The plans are supported by packs providing information for residents on popular cycling routes within the area, bus timetables, benefits of owning an electric vehicle and details of car sharing clubs.

Free travel planning support is provided to organisations through the Smarter Travel for Essex Netwok (STEN.) This now has 26 members including borough, district, and city councils, healthcare providers and business sites and seven of its members have achieved Modeshift STARS accreditation. This is a national award that recognises excellence in promoting walking, cycling and other sustainable modes of transport. Members benefit from an annual networking event, and regular updates on sustainable travel as well as practical support with travel planning.

### Resident Engagement

ECC uses a digital platform called Engagement HQ (EHQ) to consult with residents on a variety of active travel measures such as Local Cycling and Walking Infrastructure Plans (LCWIPs).

EHQ's interactive features, such as map-based tools allowing users to pin suggestions, have significantly increased the feedback received with more than 4,000 contributions from the public between August 2024 and July 2025. This platform is helping ECC build more inclusive, transparent, and responsive transport solutions.





### Supporting the Switch to EVs

In 2025, ECC was awarded £8,382,000 of capital funding from the Department of Transport's Local Electric Vehicle Infrastructure (LEVI) fund. This will fund more than 5,000 EV charging sockets across a mix of on-street and off-street locations, in both urban and rural areas, to minimise gaps in the network.

This builds on the government-funded On-Street Residential Charging Scheme (ORCS) which has seen 12 on-street public charge points installed to date, with more than 50 more to come. The project is helping residents who cannot charge an EV on a driveway or in a garage.

In January 2025 ECC launched a salary sacrifice scheme allowing ECC employees to lease, and save money on, a brand-new electric car through salary sacrifice. The offer from Fleet, an Essex-based company, includes insurance and other benefits and to date over fifty ECC employees have made the switch to a zero-emission vehicle.

In June 2025, ECC completed the installation of 16 EV charge point outlets at six ECC buildings, in Chelmsford, Basildon, Harlow, Clacton-on-Sea, and Saffron Walden. These charge points, operated by FUUSE, will be available for employees, visitors, and members to use at an affordable price and will help more ECC employees have the confidence to make the switch to a zero emission vehicle.

ECC operates electric scooter trials across Essex and as of May 2025, over 3.2m e-scooter journeys had been made on a trial e-scooter.



**£8,382,000**

**funding for public EV charging infrastructure**



### Case Study: Brentwood

Backing up its declaration of a Climate Emergency in June 2023, Brentwood Borough Council has switched its fleet of waste and street care vehicles from diesel to an eco-friendly fuel as part of its drive to achieve net-zero carbon emissions by 2030.

A trial started in May 2024 using Hydrotreated Vegetable Oil (HVO) as a direct drop-in replacement for mineral diesel. The trial was a success and the full Brentwood fleet of 56 vehicles, including its waste trucks, are now run on HVO, at an approximate extra cost of around 20% annually.

By the end of the financial year, the expected reduction in the carbon footprint for the council will be 70% against the previous year's carbon footprint. This represents a cut in associated transport carbon emissions of 99%.





## 7. Waste

Transporting, processing, and disposing of the rubbish and recycling produced by homes and businesses accounts for about 4% of UK greenhouse gas emissions. The manufacture and transport of the things we throw away also have significant climate change impacts. These emissions can be reduced by moving to a circular economy where all products are reused, repaired or recycled at the end of their useful life and materials never become waste in the first place. Achieving this shift is the top priority for the waste system in Essex.

The waste collection and disposal system in Essex is delivered by the Essex Waste Partnership (EWP), made up of ECC and the 12 Essex borough, city and district councils. By ensuring a joined-up approach to waste collection and disposal, the EWP aims to decarbonise the waste system and to deliver a more circular economy where natural resources are used efficiently.

### Waste Strategy

The EWP has worked collaboratively with partners, citizens and businesses to develop the Waste Strategy for Essex (WSfE). This 30-year countywide framework for the delivery of waste management was adopted by all 13 partnership councils in late 2024.

The Strategy is based on four priorities:

1. Move to a Circular Economy, where natural resources are used efficiently and products are designed to be durable, easy to repair and recyclable
2. Apply the waste hierarchy, by designing services that prioritise waste reduction, reuse and recycling, and recovering energy and materials from waste that can't be recycled.
3. Collaborate and innovate, with each other and with government, businesses, and communities to create a more sustainable waste system.
4. Educate and engage, by listening to feedback and delivering information and initiatives to support residents and businesses to reduce waste and recycle more and develop appropriate service provision.

The Strategy sets the following ambitious targets for Essex:

- Ensure that all residents have easy access to recycling by 2026.
- Stop using landfill by 2030.
- Reuse, recycle or compost 65% of waste by 2035, with an ambition to achieve 70% or more.
- Halve the amount of residual waste (waste which can't be recycled, composted, or reused) by 2042.
- Reduce greenhouse gas emissions from waste management, contributing to achieving our carbon reduction targets by 2050.



Disposing of the rubbish and recycling produced by homes and businesses accounts for about

**4% of UK greenhouse gas emissions**

### Waste Strategy Timeline

- **2026** Ensure that all residents have easy access to recycling
- **2030** Stop the landfilling of waste
- **2035** Recycle at least 65% of waste (with an ambition to achieve 70% or more)
- **2042** Halve black bag waste
- **2050** Reduce greenhouse gas emissions



## What Do We Throw Away?

Over 49% of Essex waste is currently recycled. This consists of paper, plastics, glass, metal etc. which is sent for reuse and recycling (25.3%), garden waste sent for composting (17.6%) and food waste sent for anaerobic digestion (6.6%). The remaining waste is known as residual waste and each person in Essex produces an average of 207 kgs of it each year. Much of this waste could have been reused, recycled or composted if it had been put out for recycling instead of being put in the rubbish bin.

In the past, residual waste would have been sent to landfill. Landfill is associated with emissions of methane, a greenhouse gas that is 25 times more harmful than carbon dioxide, so this is not a climate-friendly way of disposing of this difficult waste.

ECC has entered into new waste treatment arrangements to stop using landfill during 2025, five years ahead of the target in the Waste Strategy. Instead, residual waste will be treated through a local energy from waste facility, where waste is burned to generate enough electricity to supply 130,000 homes. It is estimated that this will cut greenhouse gas emissions associated with treatment of the waste by 30%. Over the initial seven years of the contract this is expected to save over 540,000 tonnes of carbon dioxide.

## Behaviour Change & Education

Love Essex is the public face of the Essex Waste Partnership, seeking to encourage residents to reduce waste, improve recycling and tackle littering. The Love Essex website has recently been redesigned to be easier to navigate and to host a wide range of campaigns on different types of waste.

Insights from an ECC-funded research project are being used to develop interventions and pilot projects to test the most effective way to get more people to take part in waste reduction, reuse, and recycling.



**Use of landfill  
stopped  
5 years  
ahead of target**



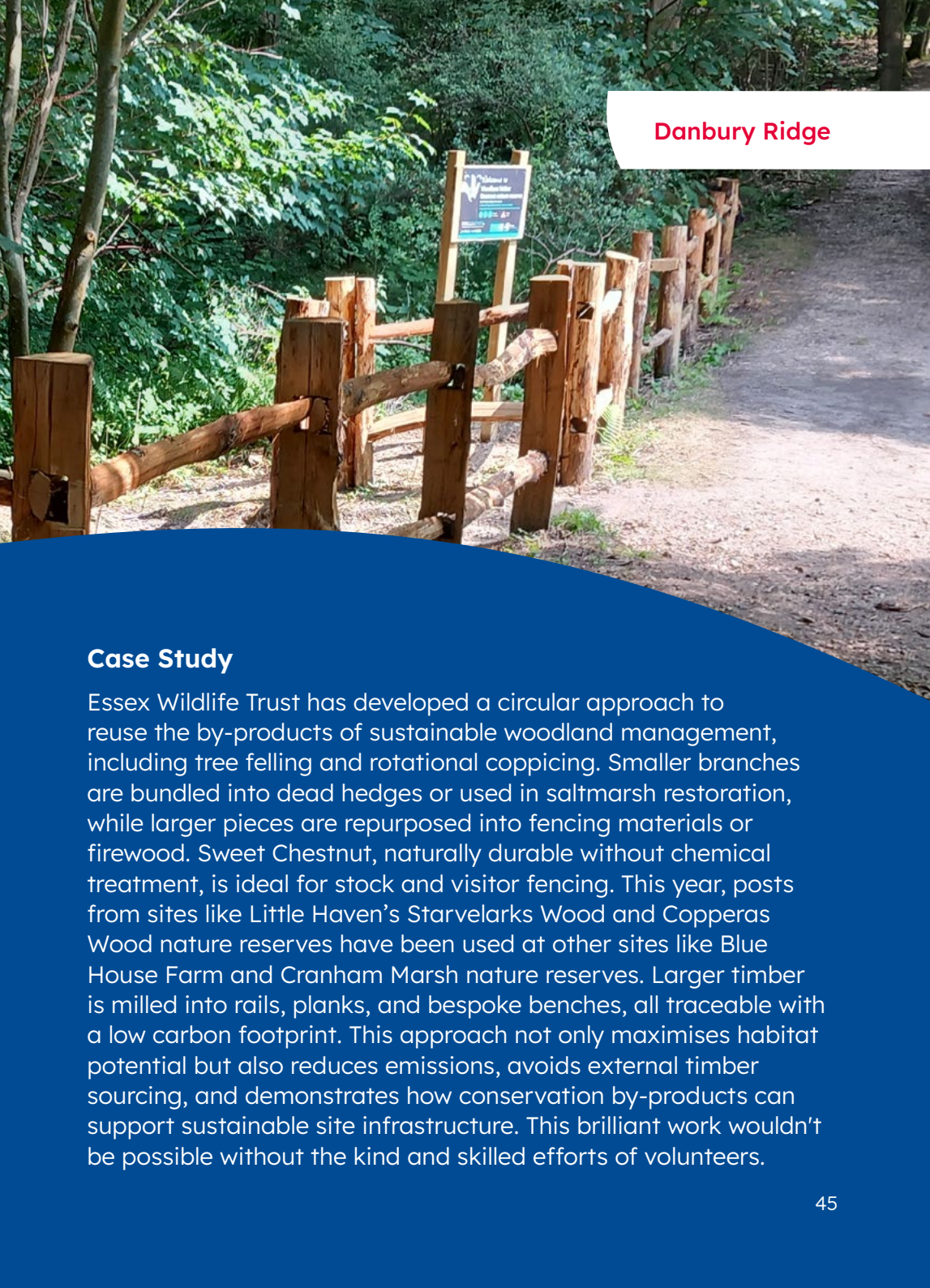
Recycling Centre

## Food Waste

In 24/25, over 48,000 tonnes of food waste were either collected separately or collected for composting with garden waste. Add in food that is thrown away with general waste, and the total amount could be around 118,000 tonnes. Tackling this issue is a priority because of the greenhouse gas emissions associated with the transport and processing of the waste and the cost to Essex residents. According to Love Essex, the average Essex household wastes £83 per month by throwing away food that could have been eaten.

In 2024, Love Essex expanded its successful food waste recycling campaign. This provides households with wheeled bins, a pack containing a sticker to go on the general waste bin, an educational leaflet, and a roll of compostable liners. The campaign led to an average 21% increase in the food recycled in the first three months compared to the previous year, and a more than 90% reduction in CO<sub>2</sub>e emissions. Initially launched to 375,000 households, it was rolled out to a further 131,000 households in October 2024.

All our food waste goes to East London Biogas in Dagenham where it is used to generate electricity and produce fertiliser which is used by Essex farms to support food production.



Danbury Ridge

## Case Study

Essex Wildlife Trust has developed a circular approach to reuse the by-products of sustainable woodland management, including tree felling and rotational coppicing. Smaller branches are bundled into dead hedges or used in saltmarsh restoration, while larger pieces are repurposed into fencing materials or firewood. Sweet Chestnut, naturally durable without chemical treatment, is ideal for stock and visitor fencing. This year, posts from sites like Little Haven's Starvelarks Wood and Copperas Wood nature reserves have been used at other sites like Blue House Farm and Cranham Marsh nature reserves. Larger timber is milled into rails, planks, and bespoke benches, all traceable with a low carbon footprint. This approach not only maximises habitat potential but also reduces emissions, avoids external timber sourcing, and demonstrates how conservation by-products can support sustainable site infrastructure. This brilliant work wouldn't be possible without the kind and skilled efforts of volunteers.



### Reuse and Repair

In February 2025, Love Essex awarded micro-grants of up to £500 to 41 local projects that support reuse and repair. These grants recognise and celebrate the efforts of community groups to encourage reuse, repair, and recycling and to reduce waste, in a host of different ways. Some of the successful winners are featured here.

[Wivenhoe Library of Things](#) is a volunteer-led project that provides the local community with a range of items to borrow for a small fee. The items range from gazebos to ladders, and even canoes! The grant was used to buy a garden shredder and pressure washer to expand the range of items on offer.



[Cake Club in Rochford and Southend](#) runs workshops to teach parents how to use reusable cloth nappies. These are much better for the environment than disposables and are cheaper, as they don't have to be replaced very often. Cake Club used the funding to purchase cloth nappy kits for families in Rochford.



[The Active Wellbeing Society and Essex Pedal Power Tending](#) have partnered on a project to collect, repair and redistribute old bikes to individuals in need in Tendring. They also run funded 'Learn to Fix' café sessions where community members can learn how to maintain their bikes. The Love Essex micro-grant was used to buy parts for the bike repairs.



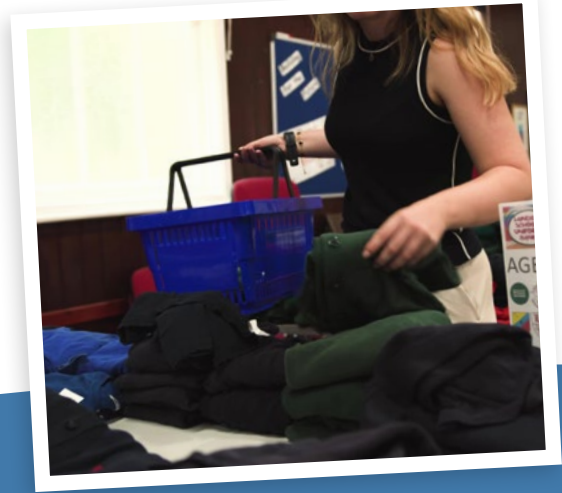
[East Essex Hackspace](#) is a community-run space in Hawkwell, Essex where members come together to build and repair items. The Hackspace hosts regular workshops and social events as well as Repair Cafés where people can get broken items repaired for free. The volunteers have repaired everything from toy cars to automatic cat feeders, and even boat propellers! East Essex Hackspace used their Love Essex micro-grant to buy equipment to help with electronic repairs.



[Baby Basics](#) in Billericay received a grant to provide 36 Moses basket starter packs, which include donated baby clothes, to vulnerable families and mothers.



[Laindon School Uniform Bank](#) was another grant recipient. The Bank aims to support local families while cutting waste by connecting people with free, pre-loved school uniform, bags and coats. In November 2024, they celebrated 50,000 free items going out the door to help families in need.



[Colcheco](#) is a Colchester-based independent refill shop founded in 2020. Customers bring their own containers to fill with food items, toiletries, and cleaning products. By removing the plastic packaging, Colcheco helps to reduce household waste. Colcheco used their funding to purchase new scoop containers to hold their pick 'n' mix sweets, and to create a mobile refill/ snacking station for events.



**38,000**  
households across  
**Uttlesford** can  
now recycle small  
electrical items

Electrical item recycling 38,000 households across Uttlesford can now recycle small electrical items by placing them in a carrier bag on top of their wheeled bin for weekly collection. This includes items with a plug, cable or battery such as toasters, kettles, and disposable vapes.





# 8. Community Engagement

Achieving a cleaner, more sustainable environment by 2050 will depend on action from everyone in Essex, from grassroot community groups to individual residents, young people to parish councils. This chapter aims to give a snapshot of some of the work that is happening in, and in support of, communities across Essex.

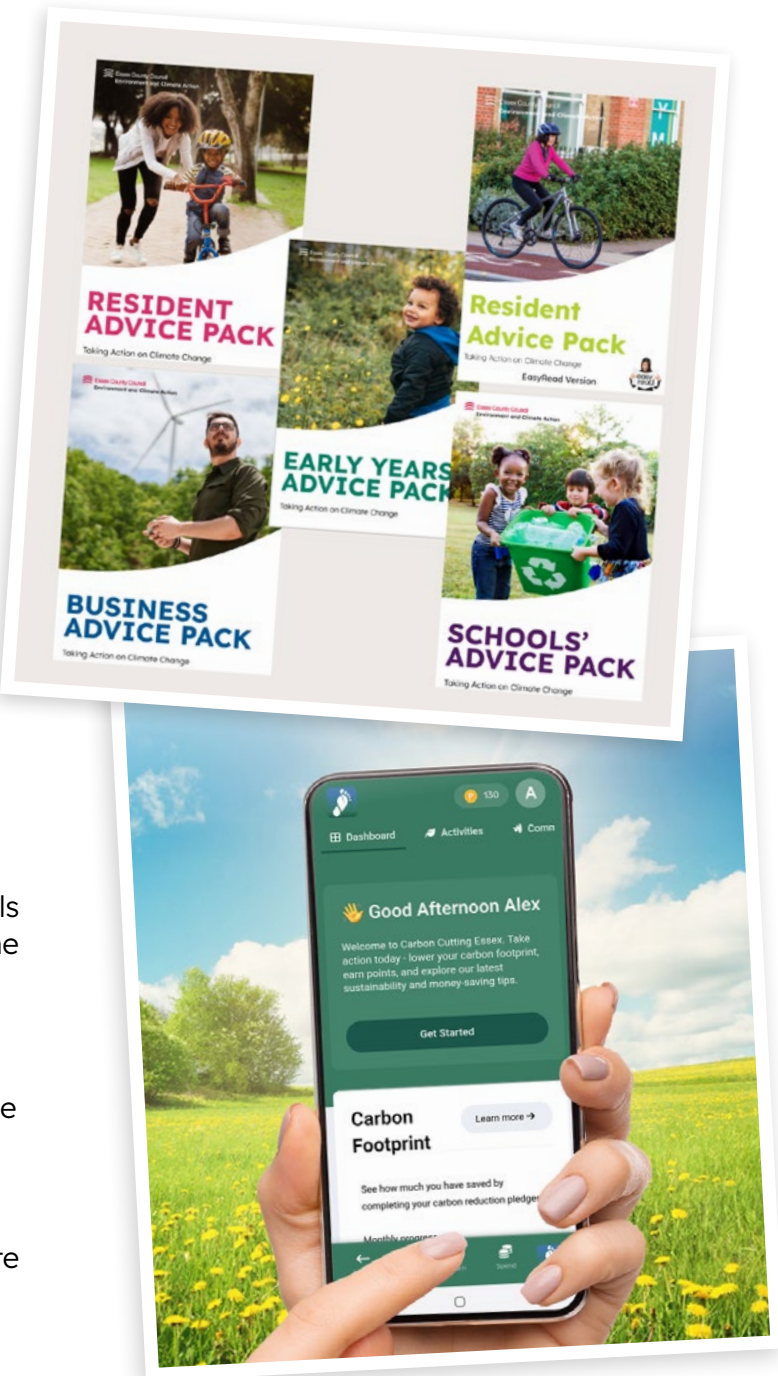
## Support for Essex Residents

ECC has developed a range of resources to help residents, businesses, schools and early years practitioners move towards a more sustainable lifestyle. The [Climate Action Advice Packs](#), launched in 2022 and updated in 2024, have been downloaded more than 4000 times. ECC will soon be unveiling a new Climate Action Advice Pack aimed at young people, to inspire them to get involved in helping the planet.

Residents can also access practical tips and advice through the [Carbon Cutting Essex app](#), which features videos, quizzes and blogs. More than 10,000 pledges have been made on the app since it was launched in May 2023 and users have completed over 22,000 interactive activities.

A new feature on the app from autumn 2025 will allow users to donate points to local schools or nurseries. The school or early years setting with the highest number of points will have the opportunity to win a Schools' Sustainability Kit, containing items such as litter pickers, seed starter kits, wheelbarrows, composters, environmental books and bird feeders.

Now in its third year, Uttlesford District Council's Zero Carbon Communities Fund is part of ongoing efforts by the Council to tackle climate change. This year Uttlesford made available a fund of £165,000 for community sustainability projects across the district. Twenty-three applications were received from sustainability groups, parish and town councils across the district. Project ideas and bids addressed a range of themes including carbon emission reduction: biodiversity restoration and enhancement: and community engagement in climate change. Fifteen projects were successful in receiving a grant. Details of all Uttlesford Zero Carbon Communities projects are showcased on the [Council website](#).



## Community Groups

In 2024, local environmental organisation PACE Manningtree (Practical Actions for Climate and Environment) was awarded the King's Award for Voluntary Service, equivalent to an MBE for a charity. This was presented by The Lord Lieutenant of Essex, Jennifer Tolhurst, at The Tendring Show in July where PACE had a large stand and ran a shuttle bus from the station so that visitors could choose to get to the show by train. Halford Hewitt, a PACE Trustee in Lawford commented "The climate and environment crises can make people feel overwhelmed and powerless but keeping projects local and practical means that everyone can see the difference they are making."

In September PACE was honoured to receive the National Landscape Award for the work of the Water Quality Volunteers who monitor the levels of pollution in the River Stour. The volunteers, who have been trained by the Environment Agency, take samples every month as part of a national Riverfly programme. This is supported by University of Essex which analyses the samples for harmful bacteria.



Local environmental organisation  
**PACE Manningtree** was awarded the  
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Harwich Community Garden

Harwich residents have joined forces in a new accessible community garden at the town's rail station, funded by the Essex & South Suffolk Community Rail Partnership (CRP) and the Community Rail Network's Community Rail Development Fund. Following construction of the garden in a redundant area next to the station building, members of the community gathered for a planting day to fill the area with blooms. Participants included members of Pamoja Project/ RAMA (a local group for refugees, asylum seekers and the migrant community), children from local schools, members of Homestart Harwich for families in poverty and the Harwich residents' group. Volunteers will care for the plants on an ongoing basis, supported by the Essex & South Suffolk Community Rail Partnership. The garden is fully accessible to wheelchair users and features seating, planters filled with pollinator-friendly floral displays, and artwork from the community.

A new community collaboration aimed at supporting local sustainability groups and projects has launched in Uttlesford. Called '[Sustainable Uttlesford](#)', the collaboration aims to provide expertise, advice, financial and other support to encourage and motivate villages, towns and other local community groups to take their own climate and biodiversity action. The group was launched at a celebration event in April 2025 attended by more than 70 people. It is led by a committee of volunteers, with regular meetings and member events planned across the district to continue the discussion and to develop ideas and actions.



Most people don't know the Wild Space in Maldon exists, but for those residents who do, it's proving to be a hidden treasure. [Our Wild Local Space \(OWLS\)](#) is run and managed by members of Heybridge & Maldon Climate Action Partnership, who have created a community foraging garden. The aim is to provide access to nature for residents without needing to get in a car and to offer a place where they can be immersed in a natural environment.

In the short time since the group obtained a formal lease on the 1-acre site, they have already created paths, a gathering circle, and hosted community events, including one for the Essex Book Festival. The Wild Space has recently received its second award for conservation. The judges were particularly impressed with the amount of work carried out with nature at the forefront of all decision-making. The 31 heritage fruit trees, planted in January in collaboration with the Essex Forest Initiative, have all been tended to over the summer by a dedicated team of Waterers, each adopting a couple of trees to care for, resulting in a fantastic 100% success rate.

[Brightlingsea Nature Network](#), working in collaboration with Cobnuts Co-operative, shared their digital Nature Recovery map for Brightlingsea at their third Nature Recovery Event at Brightlingsea Library in November. The map, which is based on two years of survey data collected by Brightlingsea residents and local ecologists, features wildlife sightings, plants, hedges, greenspaces, corridors, green garden areas and aims to create areas of opportunity for nature within the parish of Brightlingsea.

The Network's Conservation Group has worked with Brightlingsea Primary school and Brightlingsea Town Council to create a low nutrient rubble bed for wildlife along Promenade Way. Clay was replaced with recycled crushed aggregate covered in recycled sand and year five pupils planted seeds accompanied by colourful signs naming the wild flowers. This project has been popular with residents who are keen to see more wild areas in Brightlingsea.



O.W.L.S (Our Wild Local Space) Maldon is now an award-winning green space.





### Engaging Young People

The Essex Schools' Climate Action Network (ESCAN) is a group of young people and teachers from Essex who have come together to lead climate action. The idea for ESCAN was developed by Prajwal Pandey, one of the first young co-chairs of the [Essex Climate Action Commission](#). The network launched in 2024 with the aim of connecting eco groups and passionate school-aged individuals across the county. ESCAN has facilitated termly discussions, hosted environmental speakers including Lord Zac Goldsmith, shared resources, and supported student-led sustainability projects. The network encourages practical action, from energy-saving initiatives to biodiversity campaigns, while amplifying youth voices in local climate discussions. With growing partnerships and a youth-led steering group, ESCAN continues to develop, to inspire and equip the next generation of environmental leaders.

In collaboration with The University of East London, the Essex Wildlife Trust and Woodlands School in Basildon, ECC has successfully completed the first year of the ClimACTivist programme. Students can take part by completing various climate and environment related actions and can earn awards ranging from bronze to platinum. A total number of 23 students from year seven to year ten at Woodlands School participated in the pilot as part of the school's sustainability club. The ClimACTivist pilot is being extended to more schools across the county in the 25/26 academic year.

ECC continues to support [Ashden's nationwide Let's Go Zero campaign](#) which provides free guidance to schools, colleagues, and nurseries. Regional teams of advisors across the county help educational settings with the development of a climate action plan and create pioneering environmental projects.

### Events and Community Outreach

ECC held its Autumn Climate Summit in November 2024, focusing on healthy, resilient and sustainable new homes. Chaired by Councillor Peter Schwier, Cabinet Member for Environment, Waste Reduction and Recycling, the summit brought together industry experts to explore the benefits of net zero carbon homes, including reduced energy costs and economic growth opportunities.

ECC has continued to engage with residents, businesses, schools, and early years' practitioners at sustainability events across the county. Over the past year, ECC has exhibited at over 25 events including Maldon District UFEST Community Festival, Chelmsford Green Skills Jobs Fair, the Manifesto for Essex Climate Action Youth Summit, and the Essex Teaching Awards event.

During a Food Waste Action Week event in March 2025, students at the Edge Hotel School were able to join a cooking workshop hosted by Michelin-trained chef Rowan Halstead who shared ideas on how we can act on food waste.

The Annual Essex Food and Farming Day in June welcomed over 3,000 primary school students. Throughout the day, they were able to learn about how food is produced and the significant role of farmers in Essex. The event was supported by ECC's Environment team who organised various engaging activities to inspire young people to get involved in helping the planet.



ECC held its Autumn Climate Summit in November 2024, focusing on **healthy, resilient and sustainable new homes**

The Annual Essex Food and Farming Day in June welcomed over

**3,000 primary school students**



**Over 470**  
ECC employees and councillors  
have earned their Carbon  
Literacy accreditation

**200 staff**  
in ECC's climate network



### Engaging Staff

Since 2022, over 470 ECC employees and councillors have earned their Carbon Literacy accreditation from the Carbon Literacy Project. This total includes council leader, Cllr Kevin Bentley, and Cllr Peter Schwier, Cabinet Member for Environment, Waste Reduction and Recycling as well as his deputy Cllr Bob Massey. Learners complete a combination of independent e-learning and a facilitated training session covering the causes and effects of climate change, as well as what can be done about it. To earn accreditation, learners also complete a Carbon Literacy pledge: a commitment to take new action after the course to reduce their carbon footprint. In 2024, 14 ECC officers became trained 'Carbon Literacy Facilitators', enabling ECC to deliver the training in-house.

The ECC Climate Network, which has over 200 members, has continued to be a vital platform for embedding climate change into workplace conversations, ensuring that sustainability is at the forefront of service delivery. Open to all employees, the network offers access to training, carbon literacy support, and volunteering opportunities, such as tree planting and seed collecting.

Last November, a group of 12 ECC officers took part in the first national pilot for the Water Literacy Programme. The course enables colleagues to learn more about the challenges around water scarcity and actions which we can all take to use water more efficiently. Due to the success of the pilot, ECC plans to roll out Water Literacy training across the organisation in 2026.



# 9. Tracking our Progress

## Understanding Our Greenhouse Gas Emissions

The Essex Climate Action Commission commissioned the development of a net zero trajectory showing the path required to reduce our carbon emissions and reach net zero by 2050.

ECC tracks the county’s emissions against this trajectory every year, to ensure that the ambitions stated in Everyone’s Essex 2021-2024, to encourage, accelerate, and ensure a smooth transition to renewable energy and decarbonisation, are being met. For the last three years (2022, 2023 and 2024) ECC has received an ‘A’ rating from the internationally recognised benchmarking organisation CDP (formerly known as the Carbon Disclosure Project) for our work on tackling climate change.

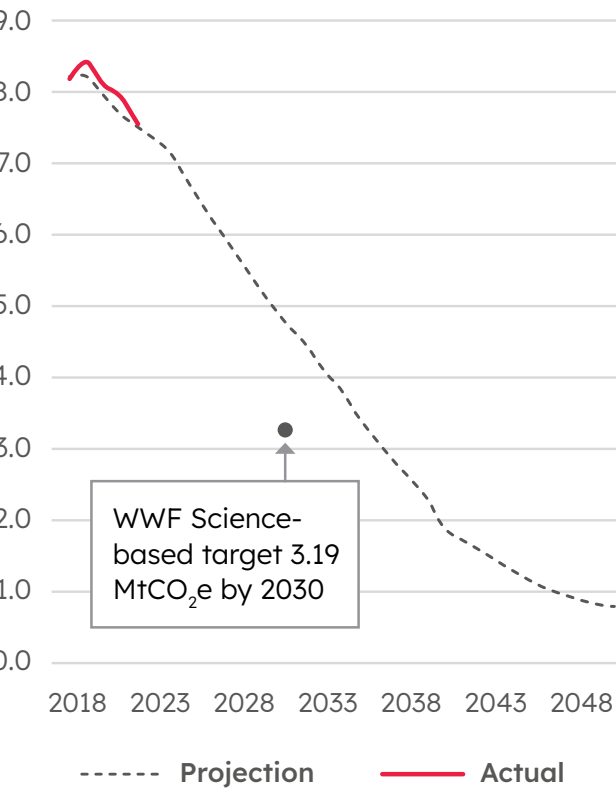
ECC uses a methodology based on a nationally recognised tool called Scatter - Setting City Area Targets and Trajectories for Emissions Reductions. This government-funded tool, which used data from a wide range of trusted sources, was updated on a yearly basis and took into the account the latest emissions factors. It helped local authorities measure, track and analyse various scenarios to decarbonise sectors and infrastructure to reach net zero in a timely manner.

Although Scatter was officially closed in 2025, it can still be used to track our historical emissions trajectory.

ECC continues to adapt its approach to tracking and reporting to keep up with emerging best practice, and benchmarks its performance internationally through CDP (formerly the Carbon Disclosure Project). This process has led to ECC setting a revised target for 2030, to reduce total emissions from 8.09 MtCO<sub>2</sub>e in 2020 to 3.19 MtCO<sub>2</sub>e. This target was set using up to date science-based methodologies from WWF and is aligned to the Paris Climate Agreement of 2015, when the global community pledged to keep average global temperature rise well below 2 degrees Celsius. This updated target goes beyond the original net zero trajectory highlighting the need for an even greater rate of decarbonisation.

The latest confirmed figure for emissions for Essex was 8.09 MtCO<sub>2</sub>e, based on data from 2020. ECC has calculated (with a high degree of accuracy) a figure of 7.57 MtCO<sub>2</sub>e for 2022. Whilst this saw anticipated increases in ‘transport’ and ‘institutional buildings’ emissions (due to the county continuing to return to normal after the COVID-19 dips in 2020), it reflected a steady reduction in almost all other sub-sectors. The target for 2022 was 7.52 MtCO<sub>2</sub>e, so whilst 7.57 represents a move in the right direction, it is still 0.05 MtCO<sub>2</sub>e above our target.<sup>1</sup>

Projected & Actual Essex GHG Emissions (MtCO<sub>2</sub>e)





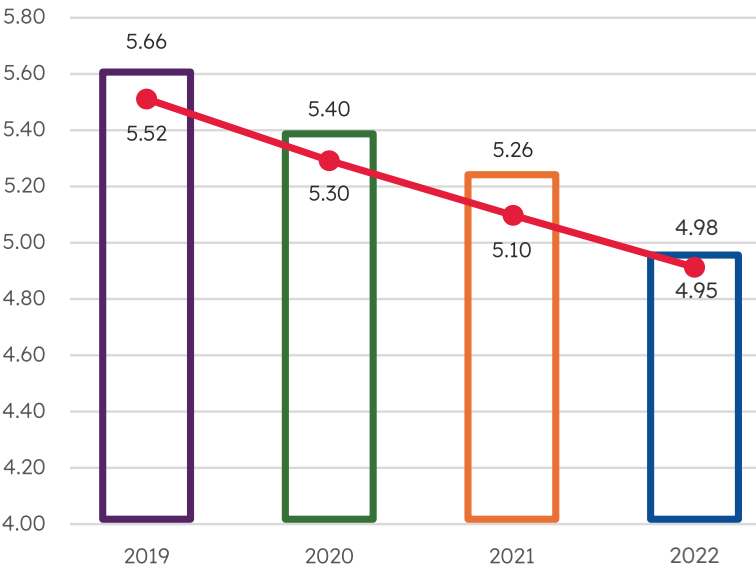
Monitoring and Evaluation of Climate Change in Essex

ECC’s approach to monitoring and evaluation continues to evolve in line with best practice. Changes include detailing some climate adaptions and mitigations- including tree planting and local renewable energy - to track the impact they are having on the reducing GHG emissions, The net zero trajectory now includes reviewed emissions from the agriculture and land use sectors and is further adjusted to consider a new dataset for waste emissions.

We can also think about our emissions in terms of a personal carbon footprint. The Department for Energy Security and Net Zero (DESNZ) publishes emissions for the UK, within as well as outside the country’s territorial borders, which suggests that the average UK resident emits 6.3 (within territory) and 10.5 (total including outside of territory) tonnes of CO<sub>2</sub>e per person respectively. For this report, only emissions occurring within the borders of Essex have been considered, as this is where most of the council’s influence lies.

In comparison with the UK average carbon footprint (excluding emissions falling outside Essex/UK borders) the average Essex resident emits 4.98 tonnes CO<sub>2</sub>e per person, which is just short of our target for 2022 of 4.95 tonnes.

Emissions (tCO<sub>2</sub>e) Per Essex Resident



Marshland near Chelmsford



# 10. Glossary

## Biodiversity

Biodiversity is the natural world around us, and the variety of all organisms - the plants, animals, insects and microorganisms that live on our planet.

## Biodiversity Net Gain

An approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand.

## Built Environment

All forms of human-made environment from housing, industrial and commercial property, to hospitals and schools, streets, sidewalks, and even open spaces.

## Carbon Footprint

The total greenhouse gas emissions generated directly and indirectly by human activities, which are expressed as carbon dioxide equivalent during the period of a year.

## Carbon Neutral

A state by which the amount of greenhouse gas emissions released into the atmosphere as a result of an activity, is balanced by an equivalent amount being removed from the atmosphere or taken away via “offsetting” (see Carbon Offsetting).

## Carbon Offsetting

Environmental practices and activities implemented to reduce emissions of carbon dioxide to compensate for unavoidable emissions made elsewhere, e.g., the creation of new woodlands and the restoration of peatlands, providing habitats for wildlife, and green spaces for the public. Offsets are measured in tonnes of carbon dioxide equivalent.

## Community Energy

The term refers to community-led projects that aim to reduce, purchase, manage and generate energy, in such a way that the local community benefits collectively from the outcomes. These projects can be wholly owned and/or controlled by communities or through partnership with commercial or public sector partners.

## Ecosystem Services

The benefits that people and society receive from nature, things like capturing and storing carbon emissions from the atmosphere (in trees and soils), supporting biodiversity and improving water quality.

## Energy Performance Certificate (EPC)

A rating that measures the energy performance of buildings. The Energy Performance Certificate (EPC) is graded on a scale of A (most efficient) to G (least efficient) and has two metrics: a fuel cost-based energy performance rating and a rating relating to CO<sub>2</sub> emissions.

## Fertiliser

A natural or synthetic substance which is added to the soil to promote plant growth.

## Fuel Poverty

Fuel poverty in England is measured using the Low-Income Low Energy Efficiency (LILEE) indicator. Under the LILEE indicator, a household is considered fuel poor if they are living in a property with a fuel poverty energy efficiency rating of band D or below, and when they spend the required amount to heat their home, they are left with a residual income below the official poverty line. [www.gov.uk/government/collections/fuel-poverty-statistics](https://www.gov.uk/government/collections/fuel-poverty-statistics)

## Greenhouse Gases

Greenhouse gases are gases in Earth’s atmosphere that trap heat. They let sunlight pass through the atmosphere, but they prevent the heat that the sunlight brings from leaving the atmosphere. The primary greenhouse gases in the atmosphere are water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>).

## Green Skills

Green skills are knowledge, experience, values, attitudes, and abilities that support carbon reduction and resource efficiency to increase climate resilience and enhance natural assets.

## Green Economy

A model of economy where the reduction of the environmental impact of business enterprises results in economic advantages for the companies themselves.

## Green Growth

A model of economic development that promotes environmental sustainability and synergies between environment and economy.

## Habitat

The home environment for plants, animals, or other organisms; a place that meets all the environmental conditions this organism needs to survive, e.g. shelter, water, food, and space.

## Landfill

A common form of waste disposal, through burying in a landfill site.

## Local Nature Partnerships

A body, designated by the Secretary of State for Environment, Food and Rural Affairs, established for the purpose of protecting and improving the natural environment in an area and the benefits derived from it.

## Micro-irrigation

An irrigation method with lower water pressure and flow than a traditional sprinkler system. Low-volume irrigation is used in agriculture for row crops, orchards, and vineyards.

## Natural Green Infrastructure

A strategically planned and delivered network of green spaces in an area which conserves wildlife, natural ecosystem values and functions, sustains clean water and air, and provides a wide array of benefits to people and wildlife. This includes parks, open spaces, woodlands, rivers, and allotments.



### Net Zero

The ‘net zero target’ refers to a government commitment to ensure the UK reduces its greenhouse gas emissions by 100% from 1990 levels by 2050.

### Overheating (in buildings)

A state where conditions in a building cause an accumulation of heat which can make occupants feel uncomfortable or heat stressed. The definition of “overheating” varies as it depends on local and regional climatic conditions. According to the World Health Organisation, ideally the room temperature should be kept below 32°C during the day and 24°C during the night.

### Passivhaus style homes

Passivhaus, refers to buildings created to rigorous energy efficient design standards so that they maintain an almost constant temperature. Passivhaus buildings are so well constructed, insulated and ventilated that they retain heat from the sun and the activities of their occupants, requiring very little additional heating or cooling.

### Renewable Energy

Energy collected from renewable sources which are infinite and constantly replenished, e.g. solar energy and wind energy.

### Retrofit

The addition of new components, technology, or features to a product or a system, to reduce carbon emissions and increase its efficiency.

### Rewilding

Restoring an area of land to its natural uncultivated state, through reinstating natural processes and, where appropriate, missing species and allowing them to shape the landscape and the habitats within it.

### Solar Farm

A large-scale installation where photovoltaic panels are used to collect solar energy, which is a form of renewable energy. Solar energy is converted into electricity which feeds into the power grid for distribution to the consumers.

### Sustainable Urban Drainage Systems (SuDS)

Systems used to manage surface water that take account of water quantity (flooding), water quality (pollution) biodiversity (wildlife and plants) and amenity.

### Sustainability

A characteristic or state whereby the needs of the present and local population can be met without compromising the ability of future generations or populations in other locations to meet their needs.

### Sustainable Farming Practices

See Sustainable Land Stewardship.

### Sustainable Land Stewardship

A range of farm systems and strategies applied to agriculture and land use, which have a positive environmental effect lowering global carbon emissions. These include: using efficient crop and animal varieties; limiting external inputs; harnessing natural biological processes; minimising physical and chemical technologies that have adverse impacts on the environment and human health; using local human resources and reducing the use of valuable resources and production of damaging resources.

### Sustainable Travel

A means of travel with low overall impact on the environment, including walking, wheeling, cycling, riding, low emission vehicles, and public transport.

### Ultra-low emission vehicles (ULEVs)

ULEVs are road using vehicles that are reported to emit less than 75g of carbon dioxide (CO<sub>2</sub>) from the tailpipe for every kilometre travelled. The term typically refers to battery electric, plug-in hybrid electric and fuel cell electric vehicles.

### Water Scarcity

Water scarcity is a relative concept. The amount of water that can be physically accessed varies as supply and demand changes. Water scarcity intensifies as demand increases and/ or as water supply is affected by decreasing quantity or quality.

### Wind Farm

An installation of wind turbines in the same location, used to “harvest” wind energy turning this into electricity. Wind farms can be either onshore or offshore.

### Endnotes

1 The waste data is from a national dataset produced by the Department for Energy Security and Net Zero (DESNZ) for Local Authorities. Although Scatter did contain data with regards to the waste emissions in Essex, it was found to be significantly lower than expected. There had been no discernible change in throughput managed within the county waste authorities and thus this decrease was attributed to the methodology that Scatter used. It should be expected that, as our net zero journey advances, we will be able to access new, more location specific data sources which will provide a more accurate picture, rather than relying on national estimates.

It is worth noting that this data does not include figures on commercial waste, as on the national level this remains a key uncertainty in the emissions inventory. This is further compounded by the fact that DESNZ only collects and compiles the data on a biannual basis, with little known about the recycling rate or appropriate emissions factors to apply. This gap is something that needs to be addressed and ECC will look to do this in the future.

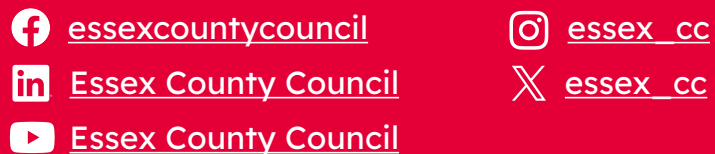


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