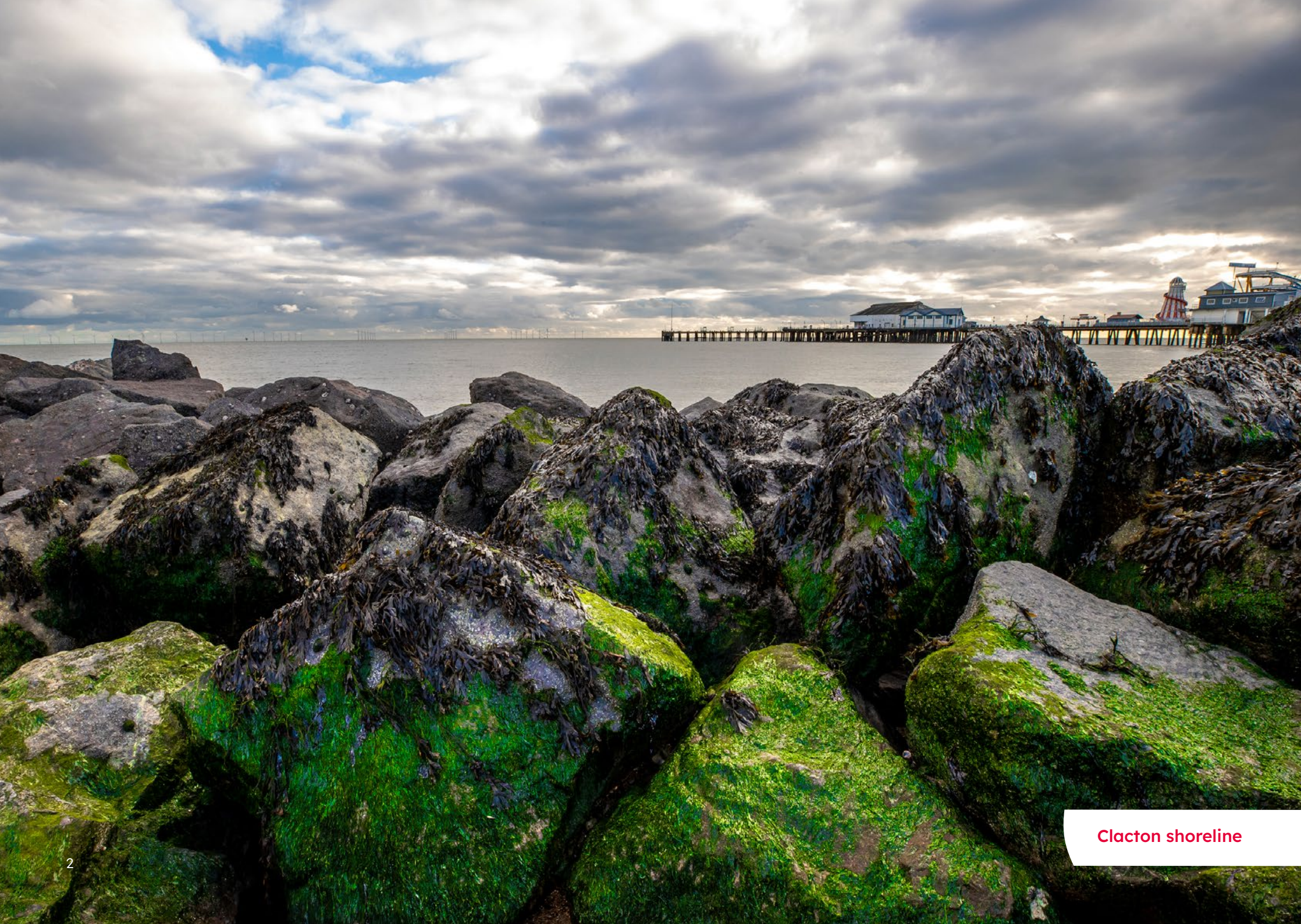


Essex Climate Action Annual Report

2023-24



Tree planting at Mersea



Clacton shoreline

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Foreword

The Essex Climate Action Commission, launched in 2020, called on Essex County Council (ECC), 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, greener future for Essex.

Our collective work towards that goal continues and it is clear from this report that it is gathering pace. Highlights this year include both the adoption of a new 30-year Waste Strategy for Essex and the launch of a pioneering Water Strategy for Essex; large scale investments in nature recovery, rewilding and biodiversity; and commitments to deliver 30,000 net zero new homes through the adoption of the Net Zero Policy Planning Guide. The award-winning Pedal Power project has reached a milestone of 3300 free bikes given to Essex residents and e-scooter trials have clocked up an amazing 2.8 million journeys, totalling almost 3.5 million kilometres.

This year has seen all councils in Essex working together to enable residents in fuel poverty to access grant funding for insulation and new heating systems and also the launch of the UK's first group purchasing scheme for domestic heat pumps. NHS and public sector colleagues continue to invest in reducing the carbon footprint of their own buildings and more than 20 groups across the county are engaged in innovative community energy projects. A wide range of events have been held to raise awareness of green jobs and skills and to support businesses in their sustainability journey. The commitment of our residents to making Essex cleaner and greener is evident in the growing number of environmentally-focused community groups and in the more than 5000 pledges made on the Carbon Cutting Essex app.

I would like to thank everybody for their continued efforts. 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
Essex Climate Czar and Cabinet Member for Environment,
Waste Reduction and Recycling at Essex County Council



A Year Of Climate Action

2023-24

Communities

1,200+ downloads of the Carbon Cutting Essex app.

5,000+ environmental pledges made by Essex residents.

Transport

Almost 3,300 free bikes given out by Essex Pedal Power

Recipients have travelled 400,200 km equal to ten times around the globe! Saving 51,611 tonnes of CO₂e.

230 E-Scooters are now being trialled in four towns and cities
2.8m trips were recorded by Aug 2024, reducing car use at all locations.

Bio Diversity

Farmers and landowners from more than 150 farms are working together on sustainable farming and nature recovery as part of the Climate Focus Areas
two Farm Clusters.

Energy

More than 20 local groups and 12 parish councils are involved in

Community Energy Projects.

5,600 registrations of interest in Solar Together in 2024.

On course to deliver 486 installs by the end of the year, generating a saving of 20-37% for households in the scheme.

Boosting jobs and growing a Sustainable Economy

56,000 new jobs in clean energy forecast for the East of England.

8 New Green businesses took part in the Green Entrepreneurs programme with three businesses receiving £5,000 funding

Buildings

3 local planning authorities have adopted the Net Zero Policy Planning Guide, together with two new garden communities. Taken together these will deliver 30,000 new net zero homes.

Waste

A food waste project targeting 375,000 households increased food waste recycling by an average of 21% with an estimated reduction in CO₂ emissions of over 90%.

Over 96,000 users of Freegle in Essex gifted over 12,000 items in the past 12 months. Avoiding 329 tonnes of waste and 168 tonnes of CO₂

Tree Planting

Since 2020 over 800,000 trees have been planted by the Essex Forest Partnership and Essex Forest Initiative. 320 volunteers supported the EFI this winter and spent 1,600 hours tree planting.

1. Introduction

What is the Climate Action Annual Report?

This annual report shows the great work happening across Essex to deliver a cleaner, greener and healthier environment and to make the county more resilient to climate risks such as flooding, overheating and water scarcity.

In 2020, Essex County Council (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. We all have a role to play in tackling the climate challenge in Essex.

ECC set out its response to the Commission's recommendations in the Climate Action Plan: first agreed in November 2021, with a revised and updated version agreed in July 2023. For the last two years (2022 and 2023) 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: both reducing greenhouse gas emissions and building resilience to increasing climate risks across the county. However, we are only one small part of the climate story in Essex.

This is the third annual climate report for Essex and it aims to show progress against the Commission's recommendations right across the county. It includes examples of actions taken by ECC, district, borough and city councils, the NHS, universities, and private businesses as well as third sector and local community groups.



Barn Owl at Martin's Farm

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 a growing impact on food and freshwater scarcity.

Internationally 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, UNEP's [Emissions Gap Report for 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions \(again\)](#) finds that the world is heading for a temperature rise far above the Paris Agreement goals unless countries deliver more than they have promised.

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. This is a fast-moving area and at the time of writing, the UK has committed to decarbonise the electricity grid by 2030, which will require massive growth in renewable energy and bring substantial numbers of jobs to Essex. Part of the rationale behind ECC's climate action plan is to ensure that Essex is able to unlock the opportunities from these changes across the county.

Thanks to the climate action being delivered by people and organisations across the county, Essex is well-placed to benefit from what Chris Skidmore MP, in his [review of Net Zero](#), called 'the biggest economic opportunity this century' and to reap the economic benefits and opportunities of green growth.

Essex Climate Action Commission set out over



100
recommendations
for a cleaner, greener county



In 2022 and 2023, ECC received an
'A' rating
from CDP for our work on tackling climate change

2. Boosting Jobs and Growing a Sustainable Economy

The transition to a green economy brings huge opportunities for Essex, unlocking investment and creating thousands of jobs. [Recent forecasts](#) indicate that investments in clean energy and warm homes have the potential to bring up to 56,000 jobs to the East of England along with significant investment in new renewable infrastructure to maximise the potential of our coastline and land.

Improving our climate resilience is an essential foundation helping us to: adapt to the challenges of a changing climate, including flooding, coastal erosion, water scarcity and overheating; and protect and enhance our natural environment, supporting our farming sector and improving health and wellbeing.

The need to build climate resilience and move towards a cleaner and greener environment is increasingly embedded in regeneration projects and in strategic planning across the county. The multimillion-pound regeneration of Broad Walk in Harlow, being delivered as part of the £23.7m Towns Fund programme, will include green landscaping and sustainable drainage as an integral part of the design. The forthcoming long-term town plans for Canvey Island and Clacton will also be informed by concerns for climate resilience and the wider environment.

North Essex Councils have committed to a collaborative approach to promote sustainable growth for their economies and communities up to 2050. This includes enabling North Essex to respond and adapt to climate change and to focus on growth of the low carbon economy, alongside other sectors. South Essex Councils have identified the environment as one of five priority themes. South Essex aims to reach net zero by 2040, with significant progress by 2030.



Retrofit at Astley Road

Supporting Businesses

[Great Start](#) is an on-line business support and accreditation scheme, to help local companies start their sustainability journey and demonstrate their commitment to net-zero. Launched in June 2024, the scheme consists of video content, presented in bite-sized modules, available free of charge on the ECC Youtube channel. After completing each module, participants receive a digital badge that can be displayed on their website or social media channels. There were more than 2000 video views in July 2024.

In 2023 ECC launched the [Green Entrepreneurs programme](#) to help new business owners or those with a green business idea to bring their ideas to life through workshops, mentoring and business support. Participants were able to pitch for up to £5k of seed funding. 8 businesses took part and 3 received funding.

In July 2024, the Green Entrepreneurs' Programme opened for the next round of applications from those with a new sustainable business, or with a green business idea. The programme will culminate in a pitch event with a panel of expert judges. The winning entrepreneur will receive £5,000 to grow their business, while two runners up will receive £2,500 each.

The [Essex Business Advice Pack: Taking Action on Climate Change](#) was refreshed and relaunched in spring 2024. The pack has been specifically developed to help small and medium-sized businesses across Essex access the most relevant information in relation to climate change and sustainability, with tips and ideas throughout to help businesses thrive whilst keeping their impact on the environment low.



Case Study

“The seed funding helped because there was no way I would have been able to afford the initial investment to get the business off the ground. It also gave me motivation and the confidence to start talking openly about my ideas. It’s difficult as a young person in this day and age to take a financial chance on yourself because the cost of living crisis meaning most of our income goes on the basic essentials. This makes schemes like this essential to giving young people the opportunity to innovate and create new industries.”

Elias Watson, one of the winners of the first Green Entrepreneurs programme. His business Essex Chestnuts plants trees for sustainable food production, timber and environmental benefits.



Green Skills

Building on the Essex Green Skills Summit held in 2023, the [Essex Green Skills Hub](#) went live in August 2024. This is a one-stop-shop for information on sustainability skills, careers, jobs and resources for Essex residents, learners, employers and partner organisations. The Hub also promotes [green skills courses offered at Essex institutions](#).

ECC has worked with the Retrofit Academy to develop retrofit training and this is currently being offered by ACL (Adult Community Learning) and STC. 33 individuals have completed retrofit training through ACL in the past year, including 3 at level 5: Retrofit Coordination and Risk Management. ACL is also delivering a Skills Bootcamp in Project Management for the Construction sector which includes retrofit level 2 and retrofit training for 140 Braintree residents and employees, with qualifications from entry level 3 through to level 5.

ECC is funding the creation of the first national course for professionals involved in delivering PAS2038, the British Standard covering the retrofit of non-domestic buildings.

ECC is working with the author of the standards and The Retrofit Academy CIC to design the course. It will launch in 2024 and 30 Essex-based small and medium sized businesses will be enrolled as the first cohort. This will provide Essex businesses with a method of demonstrating their knowledge and expertise in tenders for non-domestic retrofit projects.



[We Rise](#) is a peer-to-peer youth movement set up on Canvey Island in 2023 with the support of the Essex Climate Action Commission, ECC and other local partners. The group aims to support young people between the ages of 16 to 24 into employment opportunities in the green economy. In July 2024, the group piloted a [Green Digital Tech Programme](#) with [Decrypthut](#), aiming to build digital skills and highlight their relevance to the sustainability sector.

Case Study

[Climbing Trees](#), a performance ads and SEO agency based in Essex, has been honoured with the prestigious King's Award for Enterprise in Sustainable Development. One of only 29 companies recognised in 2024, the award acknowledges the team's dedication to sustainability and ethical business practices that shape tomorrow's world. They try to prioritise environmental and social responsibility in all endeavours, delivering results for their clients but not at the expense of the planet. This award highlights ongoing commitment to integrating sustainable practices into everyday operations.

Case Study

[British Offsite](#) opened its new factory at Horizon 120 in Braintree in 2024, producing lightweight steel structural insulated panels (SIPs). The plant can produce the panels for 10,000 new homes a year, specified to the highest EPC rating to maximise energy performance.



BEST Centre, Chelmsford College

In November 2023, more than 100 students attended the 'Greenest Generation' event at the University of Essex. Involving internal and external partners, the event showcased a diverse range of careers and the importance of sustainability and how it applies to all jobs. Activities for the students included everything from building wind turbines to eating insects! A follow up event is planned for National Careers Week this year.

As part of the section 106 agreement for the new Longfield Solar Farm, EDF has made a commitment to deliver a skills, supply chain and employment plan, to make local colleges, councils and businesses aware of opportunities for employment and in the supply chain. A steering group of local stakeholders, co-ordinated by ECC, has helped to inform the draft plan which is due to be signed off by the end of 2024. EDF has also committed that its contractors will deliver training and apprenticeship opportunities during the two-year construction phase and has pledged a skills fund with an annual contribution of £50,000 for the lifetime of the project (44 years in total). The fund will be used to upskill local residents for jobs in the renewable energy sector and supply chain.

In May 2024, Chelmsford College opened a new Centre for Built Environment and Sustainable Technologies (BEST Centre) to train heat pump engineers and solar installers. Colchester Institute's new Net Zero Training Centre (which includes Heat Pump installation) opened officially on 10th of September 2024.

Developing the Retrofit/Sustainable Construction Supply Chain

Almost 150 businesses attended the 'Retrofit Essex: Backing the Future' event organised by ECC on 19 September 2024. This event was designed to showcase innovation and highlight opportunities in retrofit to businesses in the construction, trade, planning, surveying and architecture sectors in Essex.

Over 30 businesses also attended the inaugural Retrofit Forum, in July 2024, with 5 further events scheduled this financial year. The forum aims to bring supply and demand for retrofit in Essex together, to identify challenges and barriers in the sector and co-develop solutions to maximise retrofit activity, and the economic and environmental benefits it brings. The [Essex Construction Alliance](#), coordinated by ECC, has over 100 hundred local businesses signed up and holds regular events including presentations on sustainable construction.

Greening Public Procurement

ECC recognises that public procurement is a powerful lever to support suppliers, including many Essex businesses, to benefit from the green economy. 93% of tenders of £100,000 or more now include consideration of climate impact, exceeding the target of 75%. A climate guidance document has been launched for small and medium sized businesses in the supply chain. The new residual waste disposal contract which comes into effect in April 2025 will deliver a 30% reduction in greenhouse gas emissions compared to previous disposal routes as well as substantial savings to taxpayers. ECC was the only local authority to be shortlisted for Best Commitment to Carbon Reduction in Supply Chain at the Chartered Institute of Procurement and Supply Awards.

ECC has developed and trialled a carbon calculator for care homes, which will form part of the tender process for the Live at Home and Integrated Residential Nursing contracts when they are reprocured. This is part of a package of support to help care home providers reduce their energy bills.

Case Study

Jayne's Nursery in Chelmsford is leading the way on becoming more sustainable and educating very young children to take care of the environment. Among many other measures, the nursery has moved entirely to cloth nappies and wipes, preventing over 47,000 nappies and almost 146,000 wet wipes going to landfill over the last 3 years and inspiring many parents to make the same switch. Waste products are recycled into toys and junk modelling materials and the children are actively involved in litter picking, sorting waste and recycling. They are also taught to 'make do and mend' using donated materials and to grow flowers and vegetables in the nursery allotment.



3. Green Infrastructure

Green Infrastructure has a pivotal role to play in fighting climate change by absorbing carbon dioxide and making the landscape more resilient to changing weather patterns including heavier rainfall, water shortages and hotter temperatures. Planting trees, rewilding and moving to sustainable farming practices all help to reduce the risk of flooding, soil loss and to store water in the landscape, reducing water stress. Green spaces also help create happier, healthier communities by providing opportunities for people to meet, get active and take time in nature, all of which improve physical and mental health and overall wellbeing.

ECC has set a target in its [Climate Action Plan](#) for 30% of all land in the county to be natural green infrastructure by 2040. This means effectively doubling the total area of green space, including trees, meadows, wetlands and marshes, to 1,103km². Work is ongoing to develop a new Local Nature Recovery Strategy for Essex to support the increase of natural green infrastructure across the county. Overall progress against the Essex target will be monitored by ECC, in line with guidance from central Government.

Tree Planting

The Essex Forest Initiative (EFI) is ECC's tree planting scheme. In 2023/24 the EFI planted a total of 174,875 trees bringing the total planted over four years to 412,503, exceeding the initial five-year target. Since the EFI was set up in 2020, it has planted 50 km of hedgerows, 100 hectares of woodland and 3,649 urban trees, supported by the Forestry Commission's Urban Tree Challenge Fund and Local Authority Treescape Fund. Residents are invited to join over 1400 Facebook users already following the EFI's progress on their [Facebook page](#), with 10,000 users noted in 2024 alone.

The Essex Forest Partnership, a wider initiative led by ECC in partnership with city, district, borough and parish councils, local charities and businesses, has a target to plant 1 million trees across the county by 2030. 399,315 trees have been planted to date.



Since 2020,
884 volunteers
have spent
3,353 hours
planting and caring
for new trees

Epping Green



Working with farmers

Agricultural land and farming makes up 68% of land used in Essex, with over 2,000 farms. According to [DEFRA](#) data, these are typically large farms of more than 100 hectares employing a total workforce of over 6,800 people. Total income from farming across East of England in 2022 was £1.1 billion, an increase of 7.6% since 2021.

The Climate Focus Area (CFA) was created to pilot accelerated climate action and to support farmers in moving towards more sustainable production. Located within the River Blackwater and River Colne catchment areas, the CFA covers nearly a third of the county (121,706 hectares of land plus 10,089 hectares of estuary). The CFA has helped set up and coordinate 2 Farm Clusters, which bring together farmers and landowners from over 150 farms to collaborate on sustainable farming, climate resilience and nature recovery.

The [North Essex Farm Cluster](#) was set up with funding from the CFA, 2 water companies, the Environment Agency and RSPB and now has 18,000ha of farmland signed up, plus a significant area of charity/trust owned land. Its flagship project is the Pant Valley Project which aims to create a habitat corridor from Wethersfield to Bocking, along a 10 km stretch of the river, involving 12 neighbouring farms, and linking to the SSSI (Sites of Special Scientific Interest) ancient woodlands at Bovingdon Farm.

The CFA unlocked £98,000 of external grant funding from the Department for Environment, Food and Rural Affairs to deliver business cases for four landowners to unlock investment in nature and ecosystem services. This identified opportunities for landowners to create or improve habitats, delivering carbon and biodiversity 'credits' which could then be sold to generate ongoing income from the land. The cumulative investment needed across three of the four estates is £2.5 million with the potential to generate between £15.5 million and £59.4 million in revenue (depending on the sales strategy of each estate.) The project, which finished in October 2023, created a template for other landowners in Essex to follow and this new approach is expected to be rolled out over the next 5 years.

Biodiversity Net Gain

A range of approaches are being developed by the public, voluntary and private sectors, to create new nature sites, habitats and wildlife areas.

Some land is covered by formal nature recovery agreements, such as Biodiversity Net Gain (BNG). This became a statutory requirement in early 2024 and it requires developers to ensure that habitats for wildlife are left in a better state than before development. Developers must deliver a net gain in biodiversity of 10% however if they can't do so on site, they can purchase BNG units from another landowner instead. This creates an opportunity for landowners to generate an income from improving biodiversity on their land.

ECC has begun actively developing and marketing its own BNG sites. Phase one of Essex County Council's BNG plan involves two sites in North Essex with a total area of 16 hectares at Martins Farm and Mersea Field. Under BNG, the habitat improvements must be locked in for at least 30 years, so these sites will support biodiversity for the long term.

Uttlesford District Council is the first council in Essex to include a target of 20% BNG in its draft local plan, going beyond the national standard. A range of landowners are developing BNG across Essex including [Ground Control](#), with 307 biodiversity units created at Wildfell in North Essex and [Spains Hall Estate](#).



Martin's Farm



Harold's Park Wildland

Rewilding

Excitingly, significant areas in Essex are being bought as sites for large scale rewilding and nature recovery projects. Examples are the Forestry Commission's plans for a new community woodland at Hole Farm near Brentwood (101 ha), the Environmental Recovery Centre at Wildfell in Braintree (120 ha) created by Ground Control Evergreen Investments Ltd, and Harold's Park Wildland (206 ha) created by Nattergal in Nazeing. This trend reflects Government and corporate ambitions to restore nature, support planning and to deliver on corporate social responsibility commitments.

Case Study

In July 2024, nature restoration company Nattergal announced the purchase of the 206-hectare site at [Harold's Park Wildland](#) in Nazeing. Originally the hunting ground of King Harold in the 11th century, the land has been given over to low productivity arable fields, grazing land and Christmas tree plantations. The rewilding project will transform this into a wooded pasture, home to ancient breed pigs, cattle and wild ponies who will shape the ecosystem. Rewilding will be carried out by staff and volunteers and the barns will be turned into an education hub. The income stream for the land will come from BNG payments and so will enable new housing elsewhere in Essex.

With £37,705 funding from the Shared Prosperity Fund, Braintree District Council gave over parcels of its land to communities to create 14 new community gardens. The projects included a community orchard with local trees, a wetland area and a mindfulness garden with a seating area. All sites show a strong community value, champion biodiversity and aim to create havens for wildlife, foster vibrant ecosystems and transform neglected spaces into beautiful sanctuaries.

A new wellbeing garden has been opened at Colchester Hospital, only the second in the country to be developed by the Royal Horticultural Society and the Greener Communities Fund with support from the Colchester & Ipswich Hospital Charity. Designed to be resilient to climate change, the garden features trees, wildflowers and drought-tolerant planting, as well as seating areas. NHS staff and the hospital trust's sustainability team were involved to make sure the garden supports the NHS's goal of achieving net zero carbon emissions by 2040 and it will be maintained by volunteers. The garden will also be a community hub, with outreach activities for groups in the local community including Together We Grow, a charity supporting asylum seekers and refugees in the local area.



Colchester Hospital

© RHS, credit RHS/Georgi Mabee



Flooding and Water

ECC has a statutory role as Lead Local Flood Authority, with lead responsibility for reducing the risk of surface water flooding. ECC works in close partnership with other Risk Management Authorities (RMAs) including the Environment Agency, water companies, the 12 local planning authorities and Essex Highways, through the Essex Flood Board. The Board works to research, pilot and showcase innovative approaches to flood alleviation.

ECC-led flood alleviation projects in 2024 included a raingarden project in Thrift Green, Brentwood. Raingardens take the rainwater from the road and hold it back in the garden beds reducing flooding, cleaning the water as it is filtered through the natural soils and creating gardens for local people and wildlife to enjoy. Essex residents whose homes are at risk of flooding may be eligible for a [Property Flood Resilience Grant](#) from ECC. This is a grant of up to £8000 towards the purchase and installation of products which help to minimise flood damage, helping homes stay safe and dry.

ECC has run a new campaign in 2024 focusing on educating young people in the county on flood risk management. The campaign involves providing schools with sustainable urban drainage system (SuDS) planters, making the schools more flood resilient, and educating families about simple and effective ways to improve drainage at home.

In addition to flood risk, Essex faces acute challenges around water. By 2050 the East of England will experience a public water supply shortage of around 730 million litres of water per day. On top of this, Essex water quality is below the national average.

The [Essex Water Strategy](#) was launched at ECC's spring Climate Summit in March 2024. The strategy was developed by Essex County Council in partnership with Water Resources East, water companies, regulators, farmers, and environmental groups. It addresses the region's water challenges: pressures on water supply and poor water quality. The strategy is supported by the [Essex Water – Your Future online tool](#), developed with the Young Essex Assembly, which aims to raise awareness and inspire action for a sustainable water future in Essex.

Case Study

Essex-based Wilkin & Sons, the farmers behind Tiptree Jam, are leaders in water conservation. Rainwater is collected in reservoirs which also receive filtered, surplus water from the factory. This water is used to irrigate the strawberries, raspberries and other fruits during the spring and summer months and recent innovations have ensured that every strawberry plant on the farm receives a measured amount of water to its roots. Other sustainability achievements on the site include solar panels to generate energy, zero waste to land fill (with 90% recycled) and the planting of 166 oak trees and 3km of hedgerows on site to support biodiversity.

By 2050 the East of England will face a potential public water supply shortage of around

730 million litres a day

Grants of up to **£8,000** available to minimise flood risks



Manningtree Mermaids

Case Study

In May 2024, the Manningtree Mermaids, a wild swimming group with more than 150 members, succeeded in securing designated bathing water status for Manningtree beach. The beach, which is on the River Stour estuary, is affected by three sewer storm overflows. Group members launched their SWIM (Safe Water in Manningtree) campaign in February 2023, engaged with Anglian Water and built strong support from the local community. The designation means that water quality will be monitored by the Environment Agency on a weekly basis over the summer months for the next five years, with the aim of improving water quality. The Mermaids were awarded the David Wood National Landscape Award for 2024 and were highly commended in the BBC Essex Make a Difference Awards in the Green category.

Case Study

Colchester City Council has worked with Pwyltec on an innovative approach to filtering water at the Leisure World swimming pool. Leisure World is the Council's single largest consumer of water, a significant amount of which was used to clean and filter the pool water. Under the new system, which will be installed in September 2024, cleaned water will be returned to the pool rather than being sent to drain. This saves significant amounts of water, which is no longer required to top-up the pool, while also saving the energy used to pre-heat the top-up water. The system is forecast to save around £37,000 in the first year.



4. Built Environment

New Homes

A raft of changes affecting the construction industry, including the new Future Homes Standard and efforts to reduce energy bills and leverage innovation, will impact the sector in Essex, creating new opportunities and new jobs. Construction is already one of the [largest sectors in Essex](#) with over 13,000 businesses, which in 2018 generated £4.8 billion in Gross Value Added (GVA) – 11.2 per cent of the county’s economic output – and provided employment for 46,000 people.

ECC, district, borough and city councils across Essex are working together to drive and enable delivery of energy efficient homes, working towards ECC’s targets for all new developments to be net zero by 2025 and climate positive by 2030.

In November 2023, the [Essex Planning Officers Association](#), and the Greater Essex Local Planning Authorities working in partnership with ECC, launched the [Essex Net Zero Carbon Planning Policy Position for New Build Development for Greater Essex](#). This sets out recommended policy for Local Planning Authorities across Essex to embed in their local plans to ensure that all new homes and buildings achieve net zero carbon (in operation – so from lighting, heating/cooling and electricity). A semi-detached home built to this standard would require 80% less heating than a similar home built to current building regulations, saving approximately £370 p/a on energy bills.

Net zero homes under construction in Tendring



Cannock Mill



Uttlesford was the first district council to include the policy in the consultation on its new local plan, in an effort to secure healthy, energy efficient homes with significantly lower bills for the district. In the next few years, some 30,000 net zero new homes are planned across Essex. The policy is included in the [Essex Design Guide](#) and can be used freely by other local authorities as well as industry, stakeholders, and national policy makers.

Partners across Essex are also lobbying for higher standards through the ‘Stamp It Out’ campaign, calling on the government to lift stamp duty on new net zero homes. This would make buying a net zero home cheaper than buying a standard home, driving demand in the market. The campaign is supported at a regional level by the East of England Local Government Association (LGA) including members of the Regional Climate Change Forum Sustainable Development sub-group.

Case Study

[Cannock Mill](#) on the outskirts of Colchester was the winner of the UK Passivhaus Awards and the Healthy Homes and Neighbourhoods category at the Healthy City Design Awards in 2024. The project combines the comfort and efficiency of Passivhaus design – where a building is carefully planned and insulated to minimise the need for heating – with shared community space and low carbon living. Utilising triple glazing, thick insulation, and a mechanical ventilation system with high levels of heat recovery, the houses all benefit from exceptionally low energy bills at 3,500 kwh per year. By using sustainable urban drainage systems (SuDS), water rates are halved and no surface water goes into the mains drainage system.

‘Our Passivhaus is not only wonderful to live in, but our heating costs less than our Wi-Fi!’

Cannock Mill Resident

New Schools

Since 2022 all school expansions or new schools have been designed to be net zero in operation. In the three years to September 2024, 15 projects have been completed providing 2,500 school places designed for net zero in operation, ranging from the replacement of old temporary demountable classrooms with permanent facilities, to the three new primary school buildings delivered on major housing developments in Basildon, Chelmsford, and Maldon.



Limebrook Way Primary School

Case Study

The new 420-place Limebrook Way Primary School and Nursery has been delivered by ECC in partnership with contractor Morgan Sindall. The school has been designed to be thermally efficient and features a range of carbon reduction measures including solar panel arrays, air source heat pumps and thermal walls. Low carbon steel and concrete were used to reduce embodied carbon and hydrogenated vegetable oil was used in place of diesel on site, reducing fuel related emissions by over 50 tonnes CO₂e. A wildflower meadow has also been planted next to the sports field in the school grounds and this has

improved biodiversity by 13%.



Retrofitting Existing Homes

ECC, District, Borough, and City councils have worked together to unlock a total of more than £7 million in grant funding from the government's most recent domestic retrofit programme, the Home Upgrade Grant Phase 2 (HUG2) scheme between March 2023 - March 2025. These grants are aimed at low-income households that are not connected to mains gas and are hard to heat (with an Energy Performance Certificate (EPC) of D or below.) Residents can obtain grants for insulation and new heating systems. 45 homes had been completed by August 2024 and more will be delivered before the scheme ends in March 2025.

In May 2024, all the councils in Essex worked together to open the first pan-Essex [Energy Company Obligation 4 Flex \(ECO4 Flex\)](#) scheme which operates across the whole county. This runs through to March 2026. Families with an income below £31k per annum 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. 20 eligibility declarations had been signed off by ECC by the end of July 2024 and the scheme is gathering pace with more applications coming in each week. The scheme is managed by Better Housing Better Health who also offer free and impartial energy advice, including support with dealing with fuel debt, tariff switching and small grants for emergency items such as thermal curtains and electric blankets.

Sanctuary Housing, Eastlight Community Homes and ECC successfully completed the Social Housing Decarbonisation Fund (SHDF) Wave 1 project. Securing grant funding of £1.6m plus around £2.9m of match funding from partners, this project delivered increased comfort and lower bills, as well as increased energy efficiency, in 258 social homes. This was achieved through measures such as insulation, heat pumps, solar panels, and double-glazed windows.

Rochford District Council has completed the retrofit of 54 park homes, with over £650,000 of funding from the government's Home Upgrade Grant (HUG2). Uttlesford District Council is working with installer Cornerstone to retrofit 26 park homes in Takeley Park. The homes are receiving free external wall insulation and re-cladding and, in some cases, underfloor insulation, funded through HUG2.



More than **£7 million** in grant funding unlocked

Improved energy efficiency of **258 social homes**



Rochford District Council has completed the retrofit of

54 park homes



Public Sector Buildings

Since 2021, ECC has secured over £11.5m in grant funding to reduce or eliminate carbon emissions from its buildings. These grants have supported 140 decarbonisation projects across ECC's council buildings and schools, prioritising the reduction of energy demand (through insulation, upgraded double glazing etc) ahead of installing renewable energy such as solar panels and air source heat pumps (ASHPs).

Projects in 4 primary schools and 9 core buildings are expected to be finalised by the end of November 2024, saving 382 tCO₂e emissions per year while improving the comfort and functionality of the buildings. The next round of projects, covering a library, 3 residential nursing homes and 3 primary schools, is expected to complete by September 2025, saving 213 tCO₂e per year.

ECC's School Energy Team offers free, tailored energy audits to all maintained schools in the county. These surveys cover every aspect of energy usage, from lighting to student engagement, aiming to identify opportunities for carbon reduction and cost savings. In the year to July 2024 the team visited 26 schools, resulting in an estimated saving of 118 tonnes of CO₂, assuming a 10% reduction in energy use following each visit.

Case Study

Kingswood Primary School and Nursery in Basildon benefited from a [full decarbonisation project](#). The school was fitted with insulation, new windows, solar PV, and an air source heat pump, funded by a government grant matched by funds from ECC. Head teacher Emma Campkin commented 'we're setting this school up for the future, maintaining the infrastructure, it's better for everyone as well as for the planet.' The project had the knock-on effect of inspiring the children to learn about their energy consumption. As one 11-year-old pupil said, 'if we keep doing what we are doing, it will cause more climate crisis and it will get hotter... we don't have much time, but it is possible to change our world and we are doing it here.'

Rochford District Council was successful in applying for a £424,993 grant from Sport England to install solar panels and pool covers at the Clements Hall Leisure Centre. The measures will save the council around £107,000 annually and cut carbon emissions at the site by 128tCO₂e, around 30%.

[Colchester City Council](#) has carried out a complete refurbishment of the main office at Rowan House with new technologies to reduce its environmental impact. This included replacing gas boilers with air source heat pumps and installing energy efficient lighting.

The University of Essex has cut its carbon emissions in half, compared with their peak in 2012 (from around 19,000 tCO₂e to 9,000 tCO₂e). This has been achieved through a range of measures such as targeted building management system adjustments, onsite solar PV generation, energy efficiency upgrades to lighting and heating equipment and replacing single-glazed windows with double glazing, as well as the effect of decarbonisation of the electricity grid.

Case Study

Southend-on-Sea City Council retrofitted a council house with energy saving, water saving and recycling measures, solar panels and an air source heat pump and opened it as a Retrofit Show Home, to demonstrate the environmental and financial benefits. The Show Home welcomed 357 visitors in three months, before going to a family on the council house waiting list. Just over 100 other council owned homes are also being retrofitted as the council progresses work with South Essex Homes and Morgan Sindall on the Social Housing Decarbonisation Fund project which is part funded by the Department for Energy Security and Net Zero.



5. Energy

Clean energy is identified as a key sector in the [Essex Sector Development Strategy](#). The East of England Energy Group Board and its working group East Wind (engaging with the offshore wind industry) bring together public and private sector partners to enable growth in the energy industry. [East of England GENERATE](#), is a partnership of local authorities in the East of England to promote global opportunities for the local offshore wind supply chain, and supports the [Offshore Renewable Energy Catapult 'Launch Academy'](#), an award-winning technology acceleration programme.

Low Carbon and Renewable Energy

Two new offshore wind farms are planned off the Essex Coast. Planning Inspectorate applications for 'Five Estuaries' (353MW) and 'North Falls' (504MW) are expected before the end of 2024, with plans to be operational before 2030. This will add to the 1659MW capacity already in operation across four existing sites.

Construction of the [Longfield Solar Farm](#) (380 ha 500MW), the second largest in the UK, is due to start in January 2025. In November 2023 Rochford District Council granted approval for the [Grasslands Solar Farm](#) which will generate 49.9MW of electricity, enough to power 16,5000 homes. In Brentwood, the 25MW [Crouch Solar Farm](#) project is near completion and expected to generate 24,090MWh electricity and supply enough clean energy to power 8,307 households. The project is expected to offset 5,115t of carbon dioxide emissions (CO₂) a year.

RWE are currently planning 2 green hydrogen electrolyzers in Essex, one at Port of Tilbury (100MW) and one at the [Haltermann Carless](#) facility in Harwich (60MW). Green hydrogen is produced using electricity from renewable sources. These are currently the two largest green hydrogen electrolyzers planned for the East of England.

The [Sizewell C](#) (3.2GW) new nuclear project is about to commence construction.

Investments in
clean energy
could bring up to
56,000
new jobs
to the East of
England

Essex will be home to the world's first commercial-scale factory for turning human waste into Sustainable Aviation Fuel. Biofuel company [Firefly](#) will develop the plant in Harwich with production expected to start in 2028.

To facilitate the growth in renewable energy our grid capacity needs to be increased. [National Grid](#) plans to build 183 kms of pylons between Norwich and Tilbury, to carry energy from offshore windfarms. ECC welcomes the investment in clean energy but is concerned about the impact the network of pylons will have on residents, farms and local communities. Norfolk, Suffolk and Essex County Councils are all opposed to the planned pylons and are calling for alternative ways of delivering the required connectivity.

Local Area Energy Planning and Innovation

Work on a Local Area Energy Plan (LAEP) is ongoing, in partnership with ECC, North and South Essex Councils and UK Power Networks (UKPN.) The LAEP will provide a strategic plan for balancing future energy demand, including power, heat, transport, with renewable generation. This will enable Essex to be clear about the county's requirements and feed these into the forthcoming regional and national network planning processes.

Pilot "community power stations" are being developed with two communities in Essex, Colne Valley and Manningtree. The EssNet project, funded by Innovate UK, will include installation of solar and PV battery across a joined-up network of several hundred domestic and commercial roofs in both locations. The aim of the project is to develop a replicable and scalable model ready for rollout at the end of the 17 month pilot period.

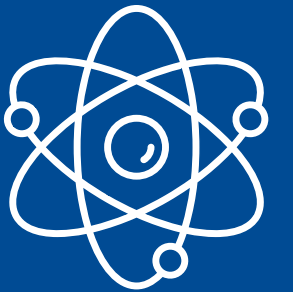
ECC, Cambridgeshire County Council, Reading Borough Council & Oxfordshire County Council worked together to explore the business case for creating zero carbon mobility hubs at park and ride sites. This work, supported by a £50,000 grant from the Greater South East Net Zero Hub, produced a model for solar power generation and a range of other services including electric vehicle charging, and power network balancing. [This model](#) is now available to other local authorities.

UK Power Networks, ECC and other partners have developed SHIELD (Smart Heat and Intelligent Energy in Low Income Districts) to offer low carbon, affordable heat and energy solutions for low-income households. In August 2024, SHIELD secured a third round of funding from the Ofgem Strategic Innovation Fund (SIF) to support the roll out of the project to several hundred households. Partners in SHIELD include Citizens' Advice Essex, UK Community Works CIC, Power Circle Projects Ltd and several social landlords.

Colchester City Council and the University of Essex have partnered with the Greater South East Net Zero Hub and ECC in a Heat Networks Delivery Unit (HNDU) funded project to undertake a feasibility study of low carbon heat network options for the University and surrounding areas of Colchester.



**2 Green
Hydrogen
electrolysers
planned in Essex**



**new
nuclear
project
scheduled**

Community Energy

Community Energy brings people together to manage, generate, own and save energy in their communities. This approach is well established in Essex with over 20 community energy groups and 12 parish councils to date, including one youth-led group in Basildon. Support for emerging community energy groups will continue to be available through the ECC-funded [Pathways](#) Programme, delivered by Community Energy South (CES), until 2026. CES is also piloting its [CommuniPower](#) project in Uttlesford, Maldon and Tendring. This project aims to develop a network of local community energy champions who can support residents to cut their energy bills and make their homes more energy efficient. The 13 energy champions trained to date have given personalised energy advice to almost 300 residents.

Case Study

The [Jaywick and District Energy Hub](#) was developed through a year-long community engagement process supported by the EU-funded Shared Green Deal Project. The Hub provides trusted information, advice, and support on energy efficiency to residents in a face-to-face setting. Support on offer includes advice on home energy efficiency, grant funding, DIY measures, and income maximisation. The Hub also offers in-home energy efficiency visits from Groundwork East's Green Doctor. These visits address practical issues and install small energy-saving measures. The Hub aims to make homes warmer, reduce energy bills, and improve health and wellbeing.

The Hub is staffed by advisers from Citizens Advice Tendring and Tendring District Council, and by community energy champions from Jaywick Sands, who have been trained as part of the CommuniPower project. The Hub is open for two half-day sessions per week, with plans to expand based on demand.



Jaywick Energy Hub

In May 2024, [Saffron Waldon Community Energy](#) secured funding from the government's Community Energy Fund for a project which aims to help the village of Littlebury understand its energy usage and find ways to reduce it. The project's overall goal is to transition the whole village from fossil fuels to renewable energy sources and a feasibility study should conclude by October 2024. Similar work is being explored in Maldon and Tendring Districts.

[Community Energy Colchester](#) has been delivering events with many other community partners, including the WI and U3A, providing energy efficiency advice to residents. This includes 54 in-depth home visits, funded through UKPN's Leaving No-one Behind programme. In Harlow, [Rainbow Services](#) have also participated in many events to promote energy efficiency at home and publicise grants to support home retrofit.

ECC's work on Community Energy was recognised at the [Community Energy England Awards](#) in November 2023 where ECC won the category of "Supportive Local Authority". The [Tollesbury Climate Partnership](#), a group supported by ECC facilities management team, were shortlisted at the same awards for the "Advancing Innovation Award" for their project to retrofit their local primary school. Work on the school started in June 2024, installing insulation upgrades, window upgrades, community-owned solar panels and a ground-source heat pump and radiator upgrade.

ECC is working with partners to pilot a community-led energy planning (CLEP) process, designed to give local people a chance to help shape the future of energy where they live. These CLEPs will provide local, place-based input to support wider Local Area Energy Planning and Regional Energy Strategic Planning.

Group Purchasing Schemes

In 2023, ECC's [Solar Together](#) group purchasing scheme helped 699 residents source solar panels and battery storage. The scheme secures significant discounts (20 to 37%) for residents from reliable suppliers. The 2024 Solar Together scheme is now underway and as of August 2024, there were over 5,600 registrations of interest, with 419 installs so far and a total of 486 installs expected by the end of the year. Since the first scheme launched in August 2018, Solar Together Essex has delivered 2,680 solar PV installs on roofs in Essex. This will avoid more than 2,000 tonnes of CO₂e annually and over 50,000 tonnes of CO₂e across the 25-year lifespan.

ECC is currently launching the first group purchasing scheme for domestic heat pumps in the UK. '[Switch Together](#)' will work like the Solar Together scheme with residents registering and installers being invited to offer their most competitive price to the group. This will lead to a personal offer which residents can opt in to, benefitting from a more efficient heating system that reduces carbon emissions. The scheme eliminates the need for residents to find an experienced, trustworthy and high-quality installer and helps them access the governments [Boiler Upgrade Scheme](#) (BUS) grant of £7,500. The scheme launched in early September with installations due to be completed by April 2025.

6. Transport & Active Travel

Encouraging and enabling people to travel sustainably, whether for shorter local journeys or as part of longer trips, will help to deliver better health and improved air quality as well as lower greenhouse gas emissions. The Regional Transport Strategy, adopted by Transport East in 2023, sets a target of net zero transport by 2040.

Strategy

The new draft [Transport Strategy for Essex](#), also known as our Local Transport Plan (LTP4), will provide an overarching plan for the next 25 years, outlining the vision for transport in Essex and actions to deliver it. The first phase of public consultation on the draft strategy took place in late summer 2024 and a second consultation is planned with the aim of finalising the strategy in 2025.

ECC has produced a [new draft cycling strategy](#) for Essex. This went through public consultation in the summer of 2024 and the strategy is expected to be adopted towards the end of 2024.

Local Cycling and Walking Infrastructure Plans (LCWIPs), which set out priority routes for walking and cycling, have been completed for most districts and progress has been made on developing a “county-wide” network. These plans will guide investment decisions and help ECC secure government funding.

Reducing emissions from the ECC fleet

Lightfoot telematics systems have been installed in 44 vehicles in the ECC commercial fleet, to monitor the driving style of the drivers and gather data on how carbon emissions from the fleet can be reduced. Based on the results, it is estimated that ECC can expect to reduce CO₂ consumption on these vehicles by almost 6.5 tonnes a year. By comparison, one tonne of CO₂ saved is equivalent to the amount absorbed by 50 trees a year.



Bus and Rail

Together with First Bus, ECC has secured £4.8 million from the Department for Transport’s Zero Emission Bus Regional Areas (ZEBRA) 2 scheme for a fleet of 55 electric buses in Basildon. First Bus is also investing £25.8 million into the scheme which will include upgrading the Basildon bus depot. This is scheduled to occur in 2024/25.

DigiGo, an electric shared public transport service which offers on-demand or pre-bookable travel in parts of Essex, carried over 41,000 passengers in 2023/24 (a growth of 210% on 2022/23). The service has been so successful that it will now run until at least March 2026 with the option of further extensions thereafter. In July 2024 it was expanded to cover a larger area, and to add an extra hour of service every day. Feasibility studies have also been commissioned for further DigiGo schemes in other rural areas.

ECC has launched a hyper-local bus service devolution pilot partnering with Epping Forest Community Transport (EFCT). The pilot covers three routes which were chosen because of their very locally focused service delivery and their proximity to communities which would not otherwise have a bus service. EFCT will receive reducing but guaranteed funding from ECC to operate the routes for the 3 year pilot period. ECC and EFCT will work together to promote the service to increase numbers of passengers with the aim of the routes becoming self-sustaining after the pilot.

ECC has partnered with Mid and South Essex NHS Foundation Trust, Ugobus and Chelmer Valley Park & Ride to relaunch a shuttle service to Broomfield Hospital from Chelmer Valley from August 2024.

Beaulieu Park Station is the first new station built on the Great Eastern Main Line in over 100 years. The station has made excellent progress on site in 23/24 and is due to open in late summer/autumn 2025. It will act as a new transport hub with over 700 car parking spaces, some with EV chargers, space for 200 bicycles, e-scooter drop off and pick up point, taxi rank and an eight stand bus interchange.

The Essex and South Suffolk Community Rail Partnership have run 15 train events over the last 12 months, all with the aim of encouraging residents to take the train rather than the car. Over 800 people took part, travelling to a number of different rural and coastal destinations.



Case Study

The Essex and South Suffolk Rail Partnership supported over 330 volunteers to plant wildlife gardens on 9000 square metres of land with Greater Anglia’s station adoption scheme, including father and son duo Nathan Dodd and Chris Honeyman who were declared ‘[Bees Needs Champions](#)’ by DEFRA for their work at Battlesbridge Station.



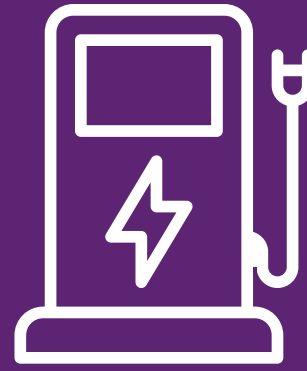
Electric Vehicles

By the end of June 2024, Essex had 17,113 registered zero emission Battery Electric Vehicles (BEVs) and 11,977 Plug-in Hybrid Electric Vehicles (PHEVs). This number is expected to increase to between 40,000 and 50,000 by 2025 and 220,000 by 2030.

Work continues to deliver the Essex Electric Vehicle Charge Point Strategy which was adopted in summer 2024. As part of the strategy, which aims to have “the right charger in the right place”, ECC has commissioned charge point operator Qwello to install 70 on-street charge points by the end of March 2025. ECC has also secured funding from the Office of Zero Emission Vehicles (OZEV) to help expand the EV team which will ensure the successful delivery of the strategy and the charging infrastructure Essex needs.



At the end of 2023, there were:



17,113

**Zero emission
Battery Electric
Vehicles (BEVs)**

11,977

**Plug-In Hybrid
Electric Vehicles
(PHEVs)**

registered in Essex.



Case Study

The De Vere Care Partnership, which provides 8,000 hours of domiciliary care per week to Essex residents, runs a fleet of over 50 company vehicles. On average, each driver covers 200 miles a day which results in an annual mileage of around 3.6 million miles. The Partnership has totally phased out petrol and diesel vehicles and replaced them with hybrid Toyota Yaris models, allowing staff to drive emission free using the battery for a certain distance and then use the economical engine that achieves 500 miles per full tank of fuel.

They are now trialling an all-electric Volvo to replace the hybrids upon renewal. At £27,000 per car, this is a significant investment for the business, but they aim to move to all electric by 2030, saving 92g of CO₂ per kilometre. They have also invested £12,000 in 15 electric bikes for staff to use for care visits. This has helped to remove 10 cars from the roads of Essex and to attract skilled care workers who did not have driving licences, helping to ensure inclusive recruitment. Staff take the bikes home and can use them in their spare time which encourages an active lifestyle.

Air Quality

Partners from across Essex took part in the Essex Air Quality Summit, organised by the Essex Anchors' Climate Action Working Group in December 2023. This event brought together health, local authority and community partners to examine the effects of poor indoor and outdoor air quality on health, wellbeing and the climate, and to kick start a more joined-up approach. The work of the Summit is being taken forward by a new air quality working group.

A draft Air Quality Improvement Strategy for Essex has been developed with the active support of all unitary and district/borough councils in Essex, and it is expected to go out for public consultation in 2025. The new [Essex Air](#) website, launched in November 2023 had over 21,000 hits between November 2023 and August 2024. The aim of the site is to improve awareness of air pollution and what individuals can do to make a difference. The site also includes a section containing key resources for schools to download.



Essex Air website
had over
21,000
visits
in nine months

Case Study

Uttlesford District Council secured funding from DEFRA to support 'Clean Air', a project focused on Saffron Walden, that aims to increase awareness about the sources of air pollution and how to improve air quality. The project aims to produce a healthier environment for residents through more sustainable ways to travel and heat their homes. It is focused on four areas: school engagement and education; building public awareness; supporting business travel planning, and educating people about the risks of wood burning. Indoor air pollution from wood burning stoves is a particular concern in Saffron Walden, where 80% of respondents to a Clean Air Survey have a wood-burner or open fire (compared to national average of 15%.) As part of the project, pupils from local schools were able to borrow Air Aware air quality monitors from school and keep a diary of findings and carry out anti-idling events; 2 EV cars have been made available to hire through the Saffron Walden Car Club; and the Council supported the UK's first Clean Air Night to promote the risks of wood burning at home.

Case Study

As part of a one-year pilot funded by Greener NHS, specialist company EMSOL installed air quality and noise monitors in the loading bay of Southend University Hospital. With integrated computer vision, the monitors were able to collect data in real-time and identify the root causes of pollution, including specific vehicle movements. EMSOL were then able to develop recommended actions for the Trust to mitigate top sources of pollution.



In May 2024, Brentwood Borough Council began switching all diesel vehicles in the waste fleet to HVO (hydrotreated vegetable oil). This is expected to save 737 tonnes of CO₂e, which is around 35% of the Council's baseline emissions.

80%
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Saffron Walden Car Club

Cycling & E-scooters

In 23/24, local community groups in Essex received £135,943 of Cycle Grants of which around 39% supported under-represented groups. ECC has delivered bikeability courses to 8,413 children, 256 adults and 22 courses for families with 57 attendees overall, building skills on how to ride a bike safely and confidently.



Bike hire at Saffron Walden

Case Study

Uttlesford District Council has launched a series of cycling schemes as part of the Saffron Walden Clean Air Project, which aims to reduce pollution and encourage sustainable travel. Through the Saffron Walden Bike Club, local residents can rent an e-bike or pedal bike for up to 6 months at a subsidised rate to see if cycling works for them. Bikes can be delivered to home or work and paid for monthly with no deposit. There is also a network of 35 bikes for hire at various locations across the town and a community e-cargo bike is also available, hosted by Waffle and Coffee in Market Walk. Cycling has also been championed through a summer cycling event to encourage more people to feel confident when cycling. This saw stalls and activities on the Common, including ECC's bike mechanics carrying out minor repairs, and more than 60 residents taking part in a 3.8 km community bike ride. Uttlesford District Council also launched its 'Pedal Perks' scheme offering people special deals at local shops and tourist attractions if they arrive by bike. All people need to do is show their cycling helmet at the point of purchase to redeem the offers which include 20% off admission to Audley End House and Gardens, a free soft drink at the Railway Arms and 10% off at Blossom Bites café.

[Essex Pedal Power](#) (EPP) has continued to grow over the past year. This community cycling project, launched in Clacton and Jaywick in 2021, has expanded to Colchester, Harwich/Dovercourt and Basildon (through an NHS partnership). The project aims to make cycling accessible to people living in disadvantaged communities, helping them to access key services, education and employment, as well as increasing physical activity, improving mental health and reducing carbon emissions. In late 2023, EPP launched in Canvey Island, collaborating with 10 local schools to give out 60 bikes to local children in school year 6 to 7. Of these children, 89% are eligible for free school meals.

By August 2024, almost 3300 bikes had been given away overall and recipients have travelled 400,200.63 km (equivalent to ten times around the world), saving 51,611.23 tonnes of carbon. In June 2024, the scheme won the award for best transport decarbonisation project at the MJ (local government) awards.

ECC e-scooter trials have been expanded in 2024, to include Braintree as well as Colchester, Chelmsford and Basildon. There is now a total fleet of 230 e-scooters. Some 2.8 million trips were recorded by August 2024, totalling 3,423,708 kms, and these have been shown to have reduced car use at all four locations.

Healthy School Streets

ECC has completed early engagement with seven school communities, concept designs for three healthy school streets and started construction on four school streets to improve safety and air quality as well as encourage walking and cycling.

Recipients of free bikes have pedalled the equivalent of **10 times round the world...**

...saving 51,611 tonnes of carbon



Case Study

Rochford Council worked with the Westerings Primary Academy and Rochford Licensing Team to pilot a “School Streets Zone”.

Sunny Road outside the primary school was temporarily closed to all vehicles from 8.15am to 9am and 2.30pm to 3.30pm on June 12, as part of the [Great Big Green Week](#). The aim of the pilot was to reduce congestion, improve safety and cut carbon emissions associated with car use at pick up and drop off times. The local library car park was open for parents who had to drive, and parking fees were waived so parents and children could join a walking bus to school. Commenting on the trial, Adam Stainsbury, Westerings Primary Academy headteacher said: “Seeing hundreds of Westerings’ children safely walk to school during the Great Big Green Week was remarkable...With almost 80% of our families living within walking distance of the school, we want to do everything in our power to encourage more families to make safer and healthier choices.’ Rochford Council plans to carry out a consultation into whether to make the arrangements permanent and is also looking for more schools to trial the approach.

Travel Planning

Schools can significantly reduce their carbon emissions, by developing their own School Travel Plan to support more journeys to school by walking, scooting, cycling, public transport and car sharing. Decreasing the number of cars on the road can make the environment around the school safer and the air cleaner. The ECC travel plan team offers free support for schools to help develop travel plans and has worked with 63 Essex schools in the past year.

ECC continues to work with housing developers and consultants throughout Essex to implement and monitor residential travel plans. These plans help to mitigate the impact of new developments on the highway network by encouraging residents to use more active and sustainable ways to travel. In the past year, ECC has reviewed 41 residential travel plans and provided 49 Residential Travel Information Packs to new developments, showcasing the travel options in their local area.

ECC brings together businesses with over 50+ employees, to promote and encourage active and sustainable travel through the Smarter Travel for Essex Network (STEN). STEN works with businesses and organisations to prepare and implement effective travel plans for national accreditation. Out of 26 member organisations, 15 currently have achieved national accreditation for their Travel Plans, ranging from “Approved” to “Very Good” levels. New web pages have recently been launched with more resources to support and promote active and sustainable travel.

Information on all ECC’s safer, greener, healthier transport initiatives can be found on the [new engagement website](#).





7. Waste

The creation of a zero-waste economy is a core priority with a particular commitment to embedding the circular economy into how we treat resources and manage waste. This means adopting approaches where materials never become waste by more efficient use of natural resources in the manufacturing of the products we buy, and by processes such as maintenance, reuse, refurbishment, remanufacture, recycling and composting.

Dealing with the rubbish and recycling produced by homes and businesses is responsible for about 4% of greenhouse gas emissions nationally. The manufacture and transport of the things we quickly throw away also has significant climate change impacts. Targeting businesses to reduce packaging, incentivising the use of recycled products, making manufacturers responsible for the cost of dealing with items at the end of their life and making recycling services simpler and more accessible will move society towards a more circular economy.

The management of household waste in Essex is the responsibility of the county council and all 12 borough, city, and district councils. Working together as the Essex Waste Partnership (EWP) the councils have redesigned waste approaches to reduce waste and increase the opportunity for everyone to reduce, reuse and recycle.

Waste Strategy for Essex

The Essex Waste Partnership (EWP) has worked collaboratively to develop a new 30-year [Waste Strategy for Essex](#). Adopting best practice and reflecting what Essex residents say is important to them, the strategy provides a framework to reduce waste, maximise reuse and recycling and cease the use of landfill for Essex household waste. The strategy builds on existing extensive recycling and waste services and identifies a range of actions designed to ensure that by 2026 all residents can access recycling services and we can stop sending waste to landfill by 2030. This will enable us to recycle at least 65% of waste by 2035 and halve black bag waste by 2042. The strategy went out to public consultation in late 2023 and has now been adopted by 12 Essex councils.

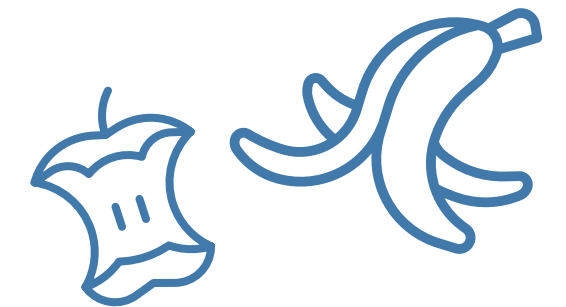
Tackling Food Waste

Food waste in landfill creates methane, a greenhouse gas 28 times more potent than CO₂ in terms of trapping heat in the atmosphere. Despite food waste recycling services being provided to most Essex households, about a quarter of the waste we send to landfill is food. It was clear that a more focused approach was needed. During 2024, ECC rolled out a project to galvanize residents into recycling their food waste. The project targeted 375,000 households across 9 districts and boroughs, providing support to residents, along with targeted communications and an education campaign. This has increased the amount of food waste collected for recycling in the targeted areas by 21% and reduced CO₂e emissions by over 90%. Phase 4 of the project will roll out to a further 131,000 households in October 2024.

ECC continues to support those wishing to compost their food and garden waste at home through the provision of online resources, courses and subsidised home compost bins. Over the last 12 months almost 900 residents have taken up these offers.

Waste strategy timeline

- 2026** ensure all residents have easy access to recycling services
- 2030** stop the landfilling of waste
- 2035** recycle at least 65% of waste
- 2042** halve black bag waste



Almost 900 residents supported to home compost in the last twelve months

Public Engagement and Education

Love Essex is the EWP's brand for communicating reuse and recycling messages. In July 2024 a [new website](#) was launched, building on the social media/e-newsletter activity which already had around 20,000 subscribers in Essex. This website hosts behaviour change, information and education campaigns across Essex, making it easier for residents to find recycling and waste information and supporting them to make changes in their day to day lives.

Chelmsford City Council and Livewell Chelmsford have launched the Sustainable Food Campaign to reduce food waste and increase the use of local, organic, and fair-trade products in the public sector, supporting urban agriculture, and addressing the impacts of climate change on food security. The campaign aims to educate and inspire Chelmsford residents to adopt healthier and more sustainable food practices including choosing food that is seasonal and homegrown and creative cooking to avoid waste. It is being delivered through in-person events, social media, and particularly through a series of informative video recipes which has seen thousands of residents across the Chelmsford District engaged and reached on the topic. You can find the videos on the Love Your Chelmsford's Facebook, Instagram, City Council's YouTube, and [Love Your Chelmsford Website](#).



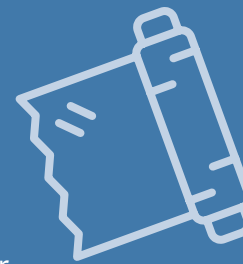
Gloves Off

Suffolk and North East Essex NHS ICB launched a 'gloves off' campaign to reduce the use of single use plastics, by highlighting that gloves are not needed in every clinical interaction. The initiative will reduce NHS carbon emissions, reduce waste, save taxpayer money on unnecessary expenditure and improve staff health and wellbeing through improved hand care. Training and raising awareness has included care homes, general practices and hospitals.



Case Study

Plastic wrap and film is one of the most common materials in our waste, but is difficult to collect separately for efficient and effective recycling. Maldon District Council is one of only 8 local authorities in England taking part in a three-year [national project](#) to test different approaches to recycling this waste stream. Over 7,000 properties in the Maldon district are part of this innovative trial with plans to add a further 4,000 households in 2024, and to make the service more widely available across the district in 2025.



Refill bottles at De Vere School

Supporting Reuse

Working with a range of providers, ECC aims to maximise the refurbishment and reuse of end of use items.

Partnering with Freegle on their mission to match unwanted items with new owners, there are now over 96,000 users in Essex who gifted over 12,000 items in the last 12 months. This has resulted in an estimated 329 tonnes of waste and 168 tonnes of CO₂ avoided.

Case Study

The Eco Club at De Vere Primary School in Castle Hedingham, Braintree is helping families to cut down on plastic waste with a monthly refill station. When parents and carers collect their children, they can also pick up a range of household products like fabric conditioner, hand soap and washing up liquid from the Refill Station. Run by the keen green pupils, the shop has already proved a hit and sold almost £170 worth of products in its first few months. Together with the other schools across Essex taking part, the refill stations have saved more than 1000 single use plastic bottles from being bought. As well as helping the school community to cut down on single use plastics, the project is a Pupils Profit Initiative, helping with arithmetic and business skills.





Station Adopter Volunteers

8. Community Engagement

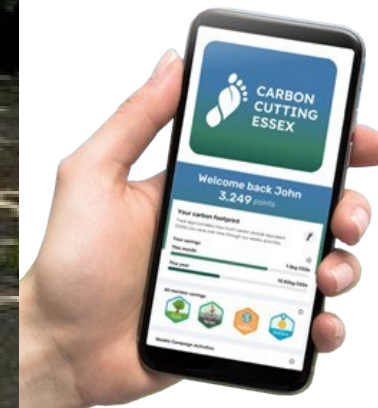


Achieving a cleaner, greener environment by 2050 will depend on action from everyone in Essex, from grassroots community groups to individual residents, young people to parish councils. This chapter aims to give a snapshot of some of the work that is happening in, and in support of, communities across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

Information and Support for Essex Residents

On International Biodiversity Day, 22 May 2024, ECC unveiled updated editions of the Climate Action Advice Packs for residents, businesses, schools, early years and childcare settings, plus a brand new easy read version for people with learning difficulties. These contain the latest guidance on acting on climate change, tailored for different audiences. All the packs are hosted on the [ECC website](#). Supporting videos were launched in August 2024 and are hosted on the ECC YouTube channel.

The pioneering [Carbon Cutting Essex app](#), launched in May 2023, continues to grow and develop. The app enables users to keep track of their carbon footprint and suggests fun activities and daily habits they can adopt to reduce it. Since launch, there have been over 1200 downloads and over 5,000 environmental pledges made on the app. The app is continuously being updated with exciting new features such as the Community Wall, where users can share positive stories of carbon reduction. A refreshed version of the app was launched in September 2024 with new features including streaks and a leaderboard.



Engaging Schools

The Essex Schools' Climate Action Network (ESCAN) is a new community of climate ambassadors from schools, sixth forms and colleges. It was conceived by Prajwal Pandey, young Co-Chair of the Essex Climate Action Commission, who sought to engage young people across the county in climate action.

The network was developed with support from the Design Council through its [Design, differently](#) programme. ESCAN launched in September 2024 and will host virtual meetings throughout the academic year, providing opportunities for student and teacher ambassadors to meet likeminded peers and share ideas of best practice.

Schools' Sustainability Kits are a new initiative aimed at increasing environmental awareness and action amongst early years, primary and secondary school pupils. Each kit will be packed with a variety of tools and resources to help schools create a greener environment, including items such as gardening equipment, bug hotels and bird boxes, badges and leaflets. The kits will be available as prizes within the Carbon Cutting Essex app and through ad hoc competitions.

Carbon Literacy Across Essex Public Sector – Building Skills

Since 2022, over 400 ECC employees and councillors have earned their Carbon Literacy accreditation from the Carbon Literacy Project including council leader, Cllr Kevin Bentley and Climate Czar, Cllr Peter Schwier. Learners complete a combination of independent e-learning and a facilitated training session which to date have been delivered by external trainers, Rio. These cover the causes and effects of climate change, both regionally and internationally, 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.

This autumn ECC is rolling out a train-the-trainer programme to enable a number of staff members to become Carbon Literacy Facilitators. Moving forward, they will be able to continue to deliver the Carbon Literacy training in-house.

The ECC Climate Network was set up as part of a senior staff member's Carbon Literacy pledge and is a dynamic and engaged community of over 200 employees and members dedicated to advancing climate action at ECC. Launched on 6th March 2023, the network has become 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 with the Essex Forest Initiative. Members can engage with a wealth of resources and contribute to ECC's ambitious climate commitments.

The University of Essex runs an annual Sustainable Essex Awards programme: an internal environmental accreditation programme which brings staff and students together to make their department more sustainable. Teams can choose to complete Bronze, Silver or Gold award levels. 37 teams completed the awards in 2023-2024 and projects included a food waste reduction campaign, plastic waste reduction, and introducing sustainability into course modules.

The Carbon Literacy training through Rio has also been taken up by a few city, district and borough councils including Basildon and Uttlesford. Basildon ran training for Elected Members, Leaders & Managers and Uttlesford ran Carbon Literacy training for Elected Members. Chelmsford City Council received its bronze accreditation from the Carbon Literacy Project in 2024, to recognise the introduction and roll out of carbon literacy awareness training to employees, including members of Senior Management.

In July 2024, ECC took part in a pilot of a brand-new Water Literacy training programme run by Groundwork East. Participants were invited to make pledges to take action on conserving water both personally and in a work environment. These pledges were assessed and where appropriate delegates were awarded water literacy accreditation. The Council is exploring opportunities to roll out Water Literacy training to staff and councillors alongside the Carbon Literacy training.



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Projects & Events

Working with Essex County Council, public participation charity, Involve, supported three local councils within the Climate Focus Area (CFA) to create local nature plans. In May 2023, workshops in Stisted, Tiptree and Wivenhoe welcomed residents to discuss priorities for protecting and restoring green spaces in the community. Outputs of the project include a resource kit so that the workshops could be replicated and run independently by other local town and parish councils.

Braintree District Council launched a £100,000 fund to provide grants to community groups wishing to reduce their carbon output, supporting a key outcome of its Climate Change Action Plan for 2023-2024. The funds were bid for by 11 groups and all who applied received an award. Each organisation estimated the carbon reduction the changes will lead to in terms of electricity or heating usage, which averaged 54%.

Over the past 12 months, ECC has exhibited at and organised over 40 events across the county engaging with residents, businesses, schools and early years practitioners. These included: the Creative Techfest at Ford, Dunton where secondary school students explored the range of career opportunities in the green sector and the Saving Species Day at Colchester Zoo to mark its 60th birthday.

Cllr Schwier, ECC's Climate Czar and Cabinet Member for Environment, Waste Reduction and Recycling continues to visit and regularly engage with local community groups and businesses. The visits have been an opportunity to see the innovative projects being delivered across the county. Over the past 12 months, the visits have included tree planting at Alresford; visiting Wild Schools run by the [Wilderness Foundation](#) and "The Big Green Ditch Challenge" where residents volunteered to revitalise the watercourse between Glenwood Avenue, Leigh-on-Sea and Downs Road, Rayleigh.



Wild Schools visit

Grassroots Organisations

The [Heybridge and Maldon Climate Action Partnership](#) (HMCAG), in collaboration with the Little Earthlings group, has started a group for parents of toddlers to share their thoughts and feelings about parenting young children in a changing climate. The group aims to provide a simple, hospitable, and empathetic space where fears and uncertainties about the climate and ecological crisis can be safely expressed and sustainable parenting tips shared. The first meeting was held in May 2024.

From July to September 2024, the Generation Hope campaign by Save the Children ran a series of Climate Café events at Chelmsford Museum. These sessions brought together experts and engaged residents from across Essex to explore sustainability, climate action, and ways to make a difference. Building on this success, plans are underway for a reimagined version, 'Climate Explorer,' which will focus on engaging schoolchildren.

Brightlingsea Nature Network works on nature recovery, habitat care and community outreach. Key projects include wildflower planting in low nutrient substrate, tree surveying at local churches, and installing solitary bee towers in a new local development. The network also focuses on emphasising the health and wellbeing benefits of nature and is working with Cobnuts Co-operative to make a nature and wellbeing bench in the town. Working alongside the Essex Forest Initiative and Brightlingsea Town Council's Nature Recovery Group, the Network has organised the planting of 101 trees across two schools, the Community Centre garden and on town council land.

Phase 2 of the Kennedy Way Community Garden opened in Clacton-on-Sea in 2024. The garden is the result of a collaboration between CVST, NHS Property Services and Suffolk and North East Essex Integrated Care Board (SNEE ICB.) Volunteers engage with people with learning disabilities, mental ill health, local schools and people who are isolated and lonely. The garden includes a Community Hub, a Recycling and Upcycling Hub, a Men's Shed, polytunnels, orchard and veg beds, as well as an outdoor gym and wildflower garden. Hundreds of patients referred from the Kennedy Way Medical Centre and local residents have improved their lifestyles by getting involved with this unique space.



Kennedy Way Community Garden



101 trees

planted across 2 schools,
Community Centre garden
& town council land



Brightlingsea Nature Network



9. Tracking our Progress

Understanding Our Greenhouse Gas Emissions

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

ECC has committed to track the county's emissions against this trajectory every year, to gauge performance and ensure that the ambitions stated in Everyone's Essex 2021 to 2024, to encourage, accelerate, and ensure a smooth transition to renewable energy and decarbonisation, are being met.

ECC tracks the county's emissions using the nationally recognised tool called Scatter - Setting City Area Targets and Trajectories for Emissions Reductions. This tool, funded by the Department for Energy Security and Net Zero (DESNZ) pulls from a wide variety of cited data sources and collates them all together in a single spreadsheet, is updated on a yearly basis and takes into the account the latest emissions factors. It helps local authorities measure, track and analyse various scenarios to decarbonise sectors and infrastructure to reach net zero in a timely manner. This resource allows ECC to compare the overall and sector wide emissions against the Essex Climate Action Commission emissions trajectory to net zero.

ECC continues to adapt its approach to tracking and reporting to keep up with emerging best practice, and benchmarks internationally through the Carbon Disclosure Project (CDP). This has led to ECC setting a revised target for 2030, to reduce total emissions from 8.09 MtCO₂e in 2020 to 3.19 MtCO₂e. 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.

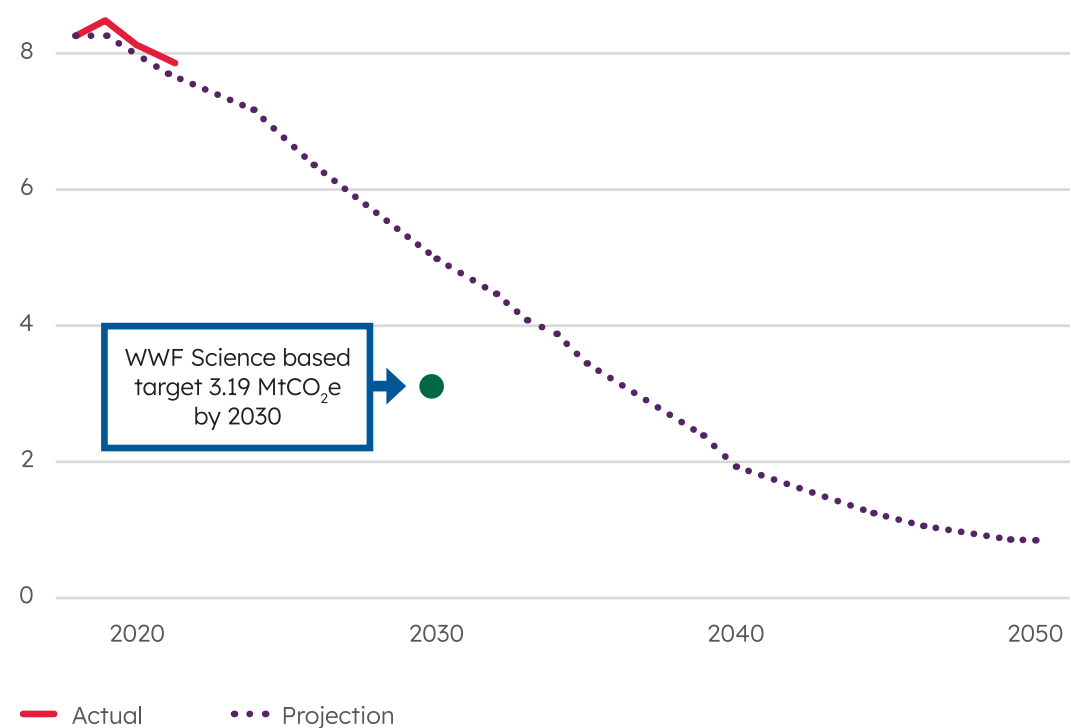


**Committed to track
the county's emissions
against this trajectory
every year.**



The latest confirmed figure for emissions for Essex was 8.09 MtCO₂e, based on data from 2020. ECC has calculated (with a high degree of accuracy) a figure of 7.92 MtCO₂e for 2021. Whilst this saw anticipated increases in emissions from transport and industrial processes (due to the county returning to normal after the COVID-19 dips in 2020), it also reflected a steady reduction in almost all other sub-sectors. The target figure for 2021 was set at 7.69 MtCO₂e, so whilst 7.92 represents a move in the right direction, it is still 0.23 MtCO₂e (3.0%) above our target.

Projected and Actual Essex GHG Emissions (MtCO₂e) 2018-2050



Monitoring and Evaluation of Climate Change in Essex

ECC's approach to monitoring and evaluation continues to evolve in line with best practice. Changes this year include detailing some climate adaptations and mitigations to track the impact they are having on the reducing GHG emissions, this includes trees and local renewable energy.

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.

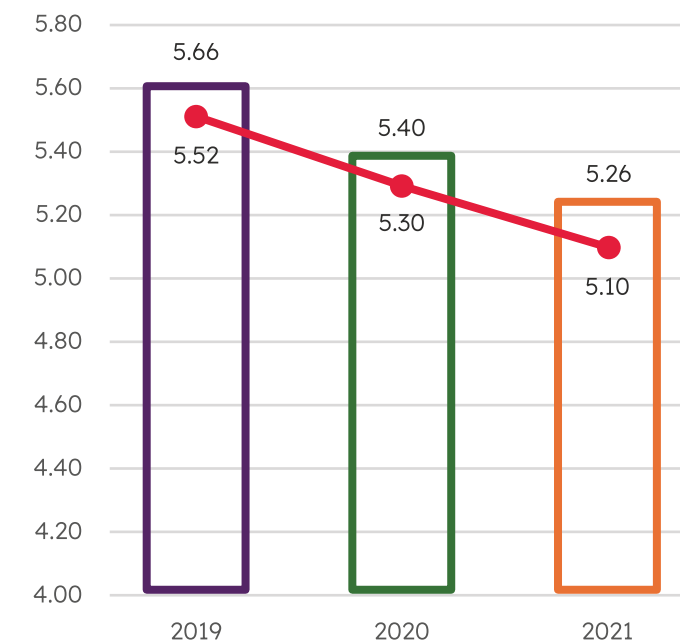
The waste data is from a national dataset produced by the Department for Energy Security and Net Zero (DESNZ) for Local Authorities. Although Scatter does contain data with regards to the waste emissions in Essex, it was found to be significantly lower than expected. There has been no discernible change in throughput managed within the county waste authorities and thus this decrease was attributed to the methodology that Scatter uses. Whilst the DESNZ dataset uses national data and estimations, it looks at waste emissions that occur in Essex rather than just the waste emissions that are treated within the county. 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 level 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 and was highlighted as such in the sixth carbon budget by the Climate Change Committee (CCC, 2020 The Sixth carbon budget waste - Climate Change Committee, page 19). This is further compounded by the fact that the 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.

We can also think about our emissions in terms of a personal carbon footprint. 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 CO₂e 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) and using the ECC calculations outlined on the previous page, the average Essex resident emits 5.26 tonnes CO₂e per person, which is short of our target for 2021 of 5.10 tonnes:

Emissions (tCO₂e) Per Essex Resident



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 gases 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 CO₂ 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

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 (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃).

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 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 (CO₂) 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.

This information is issued by:
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