

Essex Climate Action Member Briefing

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Everyone's Essex

- Four strategic aims – and 20 commitments that we will deliver:



Everyone's Essex online

<https://www.essex.gov.uk/everyones-essex-our-plan-for-essex-2021-2025>

Everyone's Essex video

<https://www.youtube.com/watch?v=kbKTCIKtSNo>

Essex Climate Action Commission
Powering positive change



Climate Challenge

UK Domestic Green House Gas Emissions (GHG) by Sector 2019

Source: BEIS, HMG



Others include Public, Industrial Processes and the Land Use, Land Use Change and Forestry (LULUCF) sectors. The percentages may not sum to 100% due to rounding.

[Final UK greenhouse gas emissions national statistics: 1990 to 2019 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2019)

We are legally required to achieve net zero green house gas emissions by 2050.

Government has agreed milestone of 78% reduction by 2035.

Transport is the largest contributor of green house gases in the UK, but is an even larger share of Essex emissions.

Our built environment is in line with the national average. As we do not host a heavy industrial sector, the contribution of our business sector is below the national average.

In 2019, UK territorial greenhouse gas emissions fell by 3% from 2018 and were 44% lower than in 1990



climate has already changed IN ESSEX

temperature and sea level are already rising

What has happened so far?



Global average surface temperature is more than 1°C above pre-industrial levels.



UK annual average temperature is about 1.2°C above pre-industrial levels. We have experienced a 0.8°C increase since 1961-1990.



Global mean sea level has risen $\sim 21\text{cm}$ from 1900.



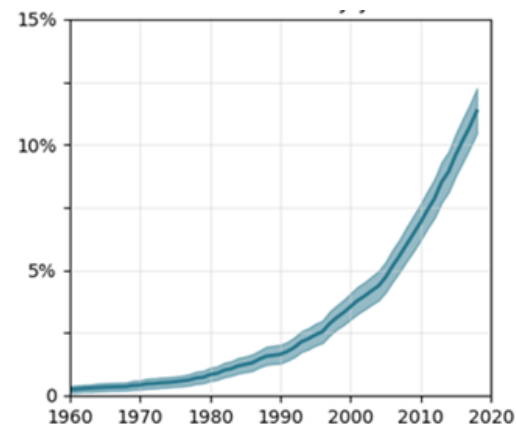
UK mean sea level has risen $\sim 16\text{cm}$ from 1900.



There are some indications of **increasing heavy rainfall** in the UK, though difficult to quantify.

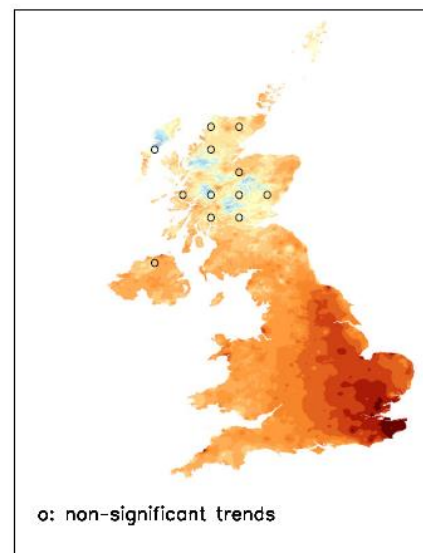


Increasing chance of UK heatwaves “like 2018 summer”. Now 10-25% chance each year, compared to $<10\%$ chance a few decades ago.



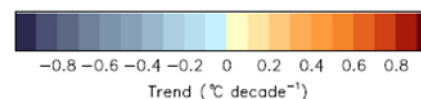
Chance of a UK “2018 Summer” increasing annually since 1960.

Chance >2018 by year
From the Met Office ‘UNSEEN’ project



Trend in the warmest day since 1960.

1960-2019 observed trends
Christidis et al. (2020)



Coastal Flooding & Erosion

The areas in Essex that could be underwater by 2050 thanks to climate change and what scientists say

There will be dramatic changes in Essex because of climate change



By [Louise Lazell](#) Senior Reporter
12:51, 21 JAN 2020 | UPDATED 07:52, 22 JAN 2020

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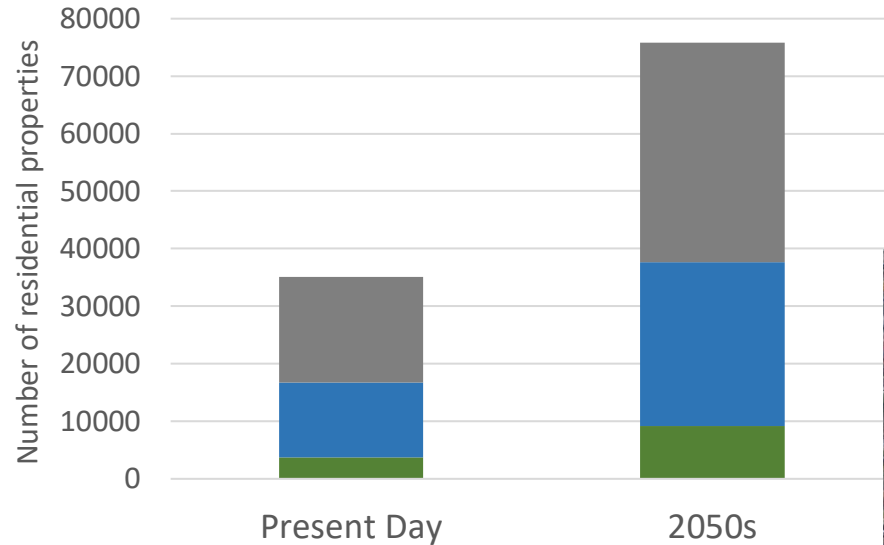


Cliffs at Cudmore Grove on Mersea Island are slowly being worn away.

Climate Central forecast huge swathes of the Essex coast below sea level by 2050.

Local impacts: Increased flooding & water scarcity

Residential properties at significant flood risk in Essex, Norfolk and Suffolk



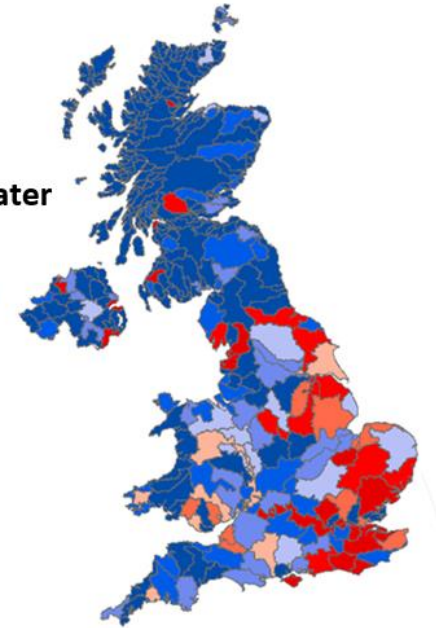
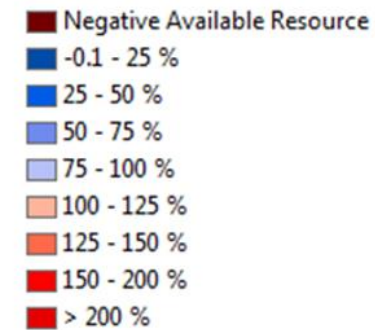
The number of homes at risk of surface flooding in Essex is expected to double between now and 2050.

Sayers et al. 2017 (CCRA2)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/300332/04-947-flooding-summary.pdf



Water demand as a % of water available for abstraction

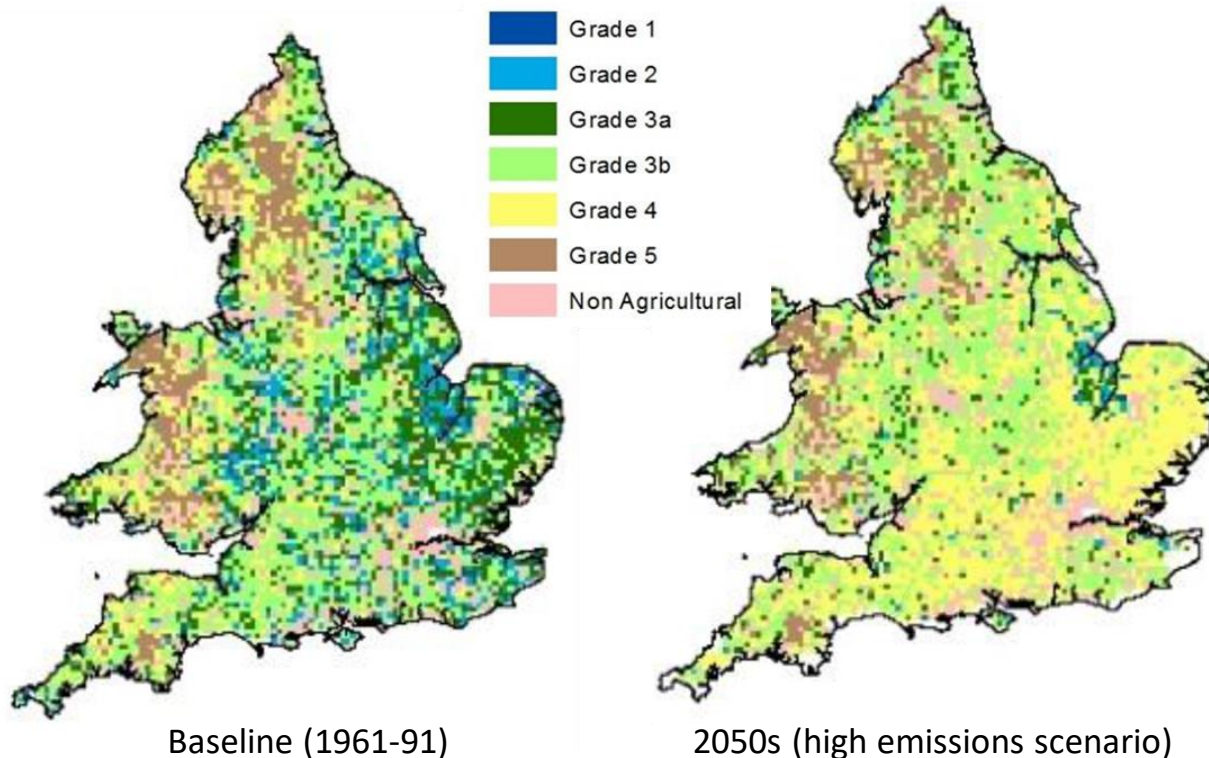


The whole of eastern England is now classified as seriously water stressed – **there is a water crisis**

([Water Resources East, Jan 2022](#))

FUTURE IMPACTS – AGRICULTURE, SOILS AND SUBSIDENCE

AGRICULTURAL LAND CLASSIFICATION IN ENGLAND AND WALES



Agriculture

Climate change will cause soil erosion – soil washed away in heavy rainfall in winter and blown away in drier summers - leading to degradation of our agricultural land and impacting our farming economy.

Subsidence Risk for Buildings & Roads

Climate change leading to hotter, drier summers, shrinks and cracks ground under houses. British Geological Survey reports *risks of clay related subsidence increases by a third by 2030 and triples by 2050*.

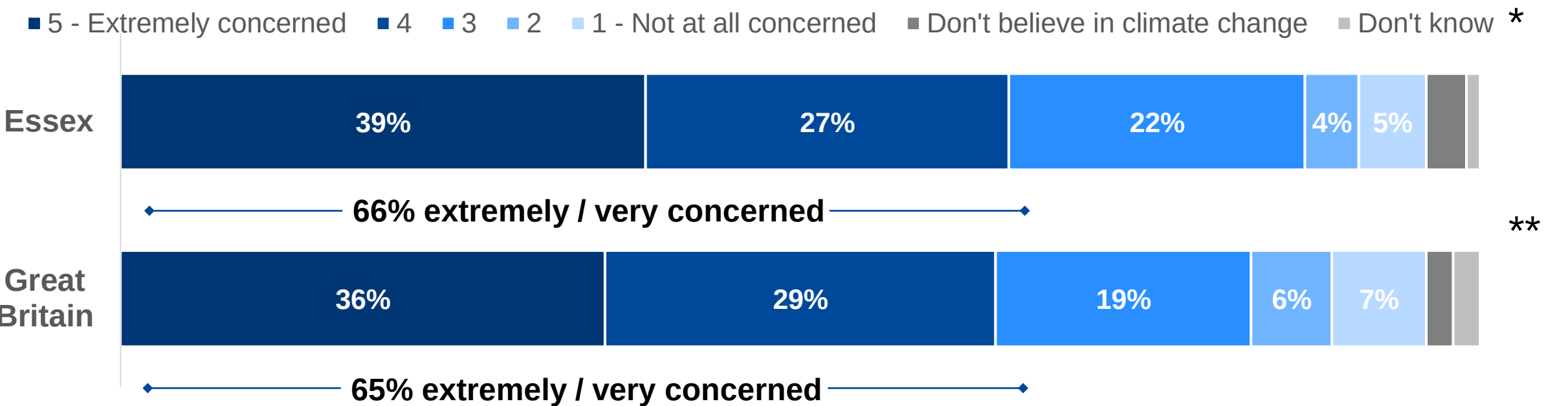
This means the 1m homes at risk in the UK in 1990 is set to rise to 2.4m by 2030.

Essex is one of the key areas that will be affected.

Two-thirds of Essex residents said they are ‘extremely’ or ‘very’ concerned about climate change, in line with the national population

Level of concern about climate change

On a scale of 1 – 5, , where 1 = not at all concerned, and 5 = extremely concerned



*Essex: 3% 'I don't believe in climate change' / <0.5% 'Don't know'
**Great Britain: 2% 'I don't believe in climate change' / 2% 'Don't know'

Q20: On a scale of 1 to 5, where 1 = not at all concerned, and 5 = extremely concerned, how concerned, if at all, are you about climate change? Alternatively, please tell me if you don't believe in climate change. **BASE:** All respondents (Essex: 1,800 / GB: 995)

Essex Climate Action Commission

Set up by Essex County Council to advise the Council on how best to tackle the climate challenge and become a net zero emissions county by 2050. Over thirty Commissioners.

- Cross-party with representatives from across ECC, Districts and Parish Councils
- Brings together internationally and nationally renowned academics and climate scientists (UN Chief Scientific Adviser, senior academics from all 3 Essex Universities); representatives from wider public sector, major businesses and land owners in Essex; national trade associations, local charities and community leaders
- Independent Chair—Professor Jules Pretty
- Co-chairs two Young Essex Assembly members to the Commission
- Joined Placed Based Climate Action Network to share information and support



Net Zero: Making Essex Carbon Neutral

Essex Climate
Action Commission



2021 EV strategy; E-Scooter Pilots running;
Ten Liveable Neighbourhoods
Community owned renewables
Essex Design Guide; Green construction training
Smart meters in schools
All new builds to have solar panels

2022 New schools commissioned net zero
25 school streets
10 local delivery hubs
5 E-cargo bike schemes
Energy sector innovation hub

2024 Network community reuse
and repair hubs

2023 Essex Housing Demonstrator net zero development
Developers to fund flood risk management via CIL
Coastal flood resilience scheme in critical areas completed

2025 All New buildings net zero and support circular
economy recycling
50% Essex schools retrofitted to net zero
All residents & businesses to have kerbside recycling
All biodegradable waste to beneficial use

2030 25% all roofs have solar panels
1.43GW solar energy
Bioenergy in difficult rural homes
Hydrogen store for renewable energy
20 Liveable Neighbourhoods
3 new park and choose sites

2030 All public sector estates in Essex NetZero
100% fuel poor homes retrofitted & supplied
with renewables
2/3 Essex houses retrofitted
1/3 commercial buildings retrofitted
100% schools retrofitted
All new buildings carbon positive

2030 25% land natural green infrastructure
(urban and rural)
50% farmland uses sustainable land stewardship
30% Essex in a Climate Focus Area
Per capita waste reduced by 10%
70% recycling rate
Zero waste to landfill

2035 All waste heat reused
All gas fired power repurposed to bioenergy
Network of community energy neighbourhoods
in every district

2040 All housing retrofitted
Zero GHG emissions from housing
Essex renewables meets all county needs
30% all land natural green infrastructure
75% farm land adopts sustainable
land practises

2050 All roofs have solar panels
75% all developments have integrated natural water management
100% farm land uses sustainable land practises

Net Zero: Making Essex Carbon Neutral
can be found [here](https://www.essexclimate.org.uk)

ECAC website www.essexclimate.org.uk

Essex's £200m climate action plan is unveiled



ECC has embedded carbon reduction fully into Governance, with climate impacts required in every decision paper

Carbon Literacy Training is currently being delivered for one thousand staff and members

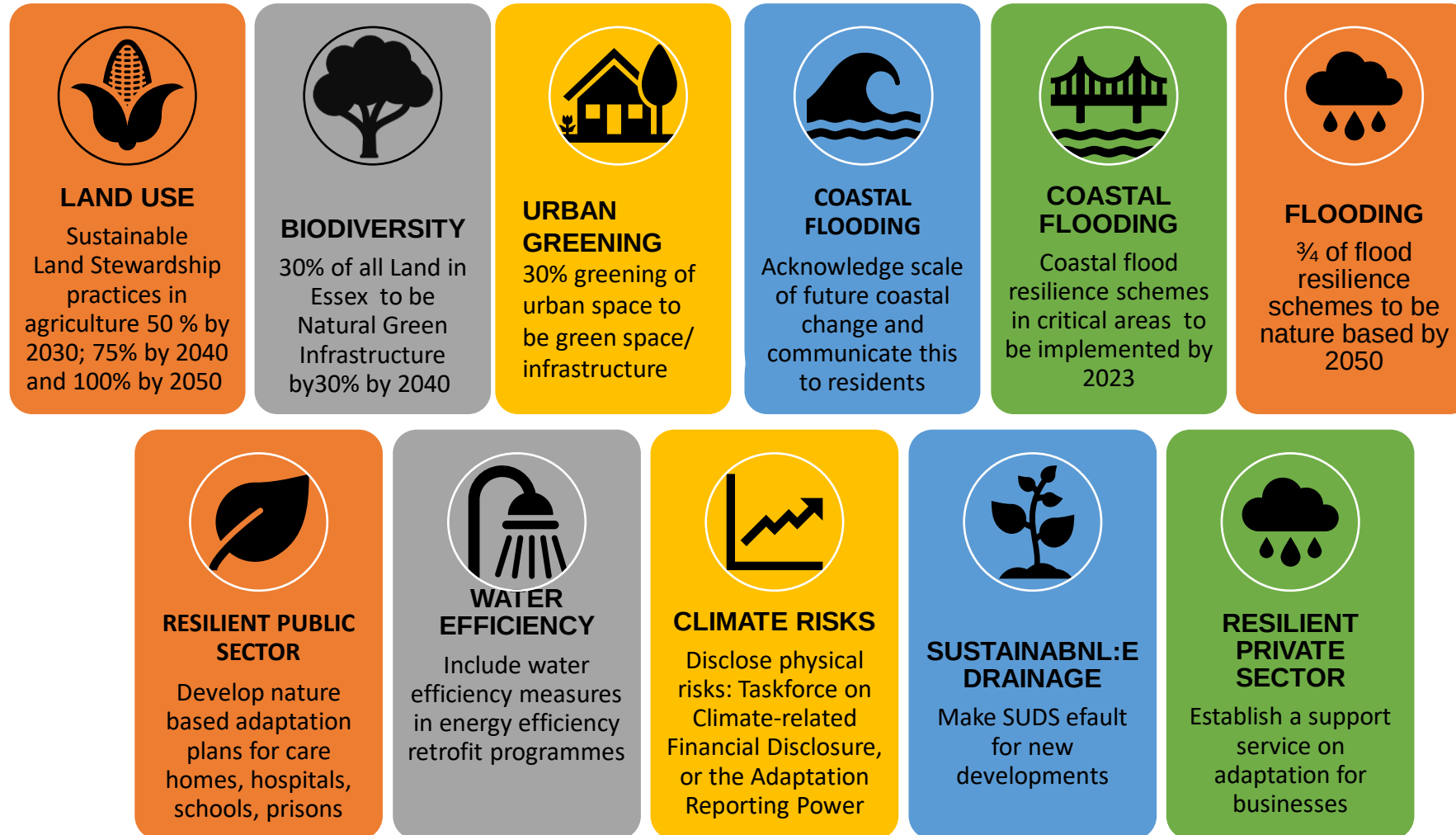
Essex is moving to hybrid working to cut travel by staff and reduce carbon footprint of operations

Essex is embedding carbon into procurement with 20% weighting for climate impacts and new Carbon Reduction Plans for key contracts.



CLIMATE COMMISSION

LAND USE, GREEN INFRASTRUCTURE, RESILIENCE





Land Use and Green Infrastructure Land Use Change

Essex Green Infrastructure Strategy

- Awarded Excellence by Natural England
- New Building with Nature principles developed with partners

Essex Forest Partnership

- Forest partnership committed to 1m trees by 2025 across Essex.
- [Essex Forest Initiative](#): ECC funding c 365k trees but has brought in funding from Woodland Trust, Forestry Commission and private sector.
- There have been a total of 1164 volunteer hours so far this year.
- Successful Urban Trees Challenge and Local Authority Treescape Fund for £360,000 to plant trees in Essex Towns

Local Nature Partnership

- Nature Recovery Strategy
- Farming clusters to support move to sustainable farming
- Climate Focus Area to accelerate action and provide exemplars.



Essex Forest Initiative





Land Use & Green Infrastructure Climate Resilience

Essex Water Strategy

- working with [Water Resources East](#) and partners across Essex
- Aim to finalise Sept 2023

[ECC is the Lead Local Flood Authority](#)

£12m Nature Based Flood Resilience Capital Programme

Sustainable Drainage (SuDS) as a priority:

- The [SuDS team](#) have managed 317 planning applications, improving flood resistance on c. 16,000 new developments in Essex
- Launched [Make Rain Happy in Canvey](#)
- Grant programme for SUDs in Basildon schools

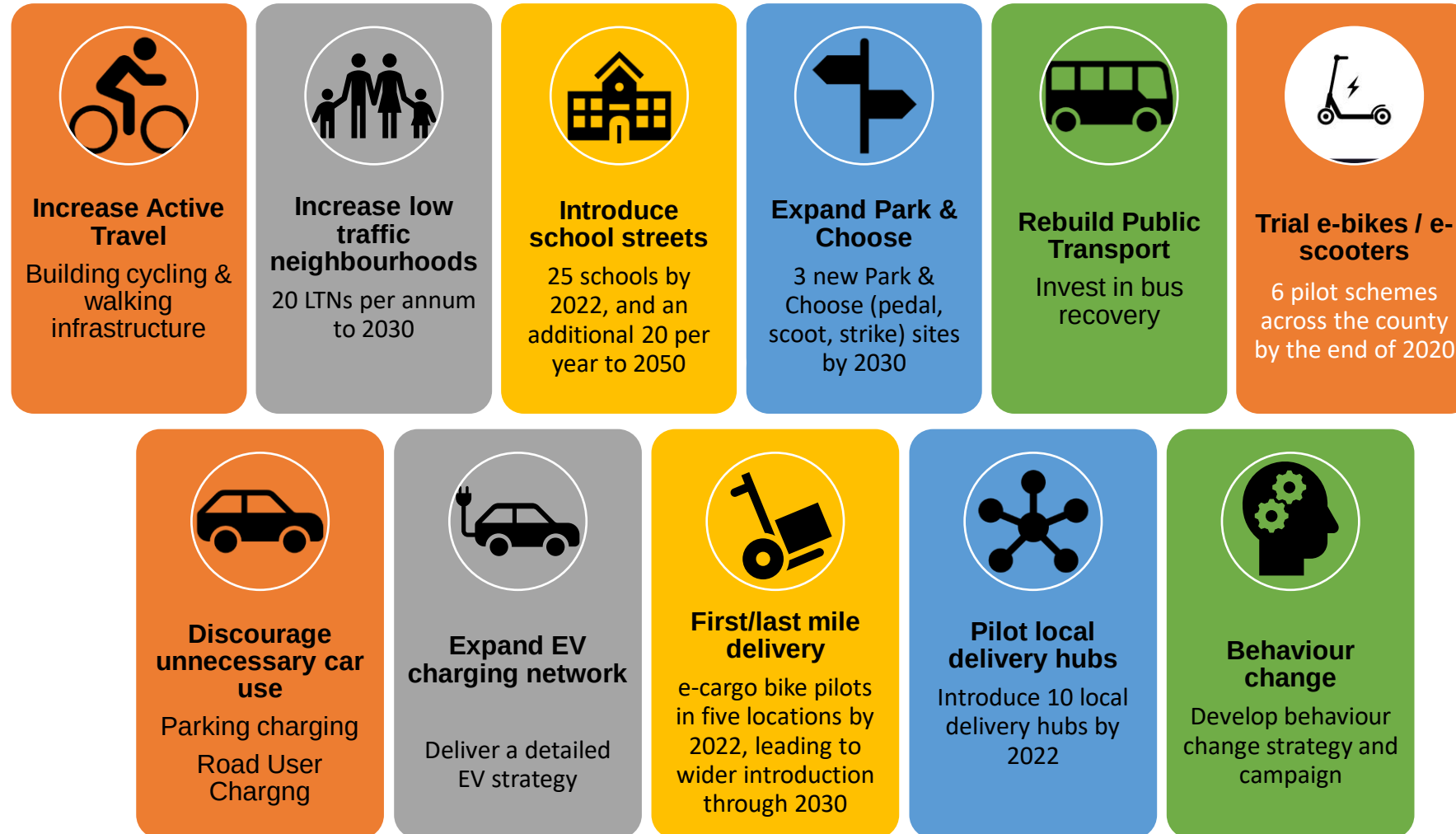


[Make Rain Happy Canvey](#)



CLIMATE COMMISSION

TRANSPORT



Transport



New Transport Policy focused on AVOID unnecessary journeys; SHIFT to public and active travel; IMPROVE journeys by building active travel and EV infrastructure

Public transport

- [New Bus Improvement Plan](#)
- Launch of [DigiGo](#) electric demand responsive transport 13 April 2022

Active Travel

- [Walking Strategy](#) launched and warmly received by central government.
- [Local Cycling and Walking Infrastructure](#) plans for our districts, developing a long-term framework
- [£8m for five active travel schemes](#) & £4.75m in new cycle ways and £3m to maintain our existing network
- [Essex Pedal Power](#) - giving 1,300 residents in Jaywick Sands and Clacton a new bike free of charge

Behaviour Change

- New [Ways of Working](#) for ECC staff
- [The Stop, Swap Go!](#) campaign saw 35,503 website visits, and 428,000 unique users on Facebook alone
- [Journey Planning App](#)

Electrification

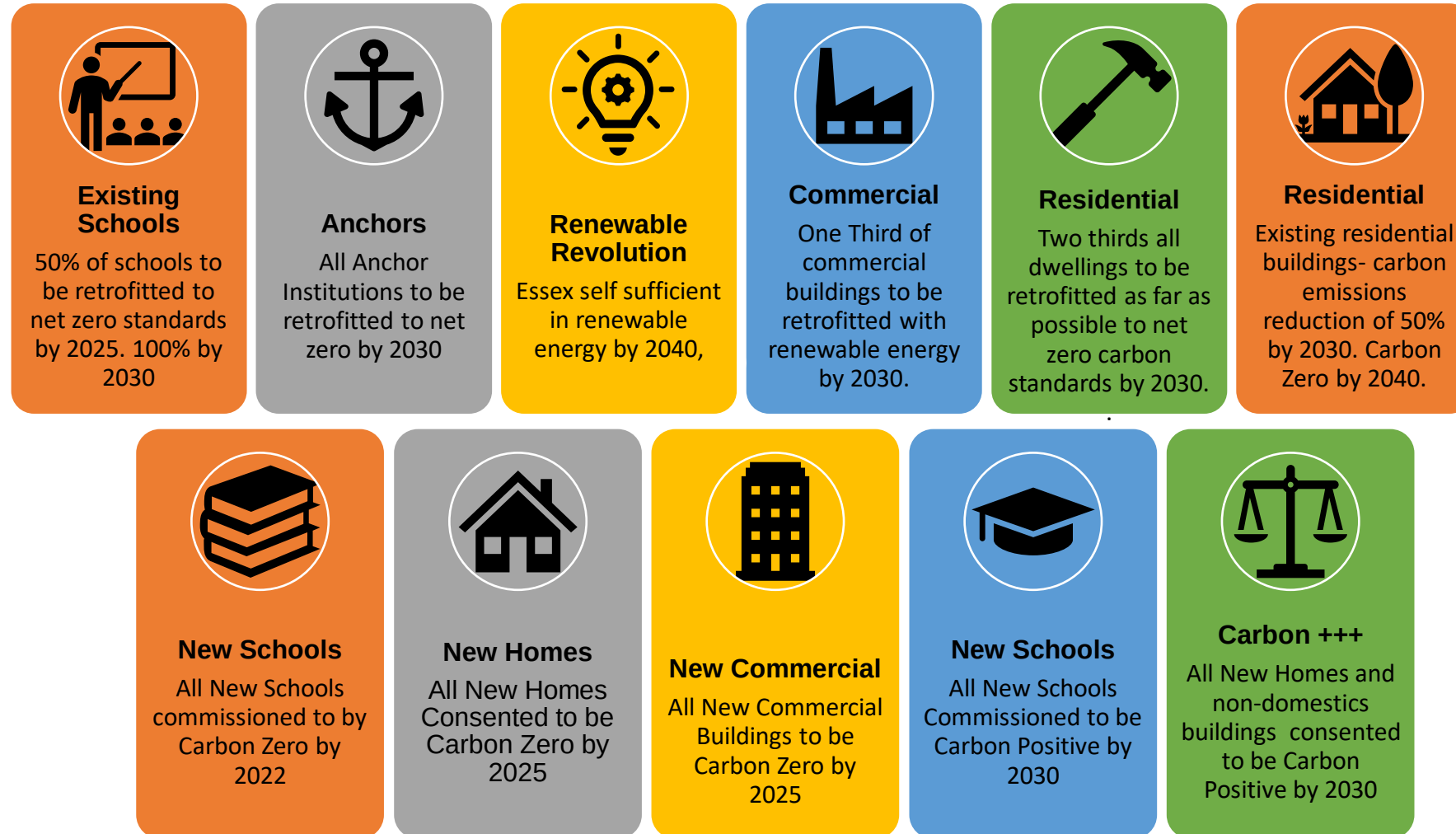
- The UK's First Electric Vehicle (EV) charging station
- New EV infrastructure strategy in development
- [E scooter trail](#)
- E cargo trail
- EVs for ECC fleet

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BUILT ENVIRONMENT





Built Environment Retrofit

Public Sector

- ECC estate: a policy to be net zero by 2030
 - Ongoing retrofit and smart meter programme
- Anchor Programme working with public sector across Essex to secure commitments to retrofit own estates

Fuel Poor Homes

- £0.8m grants delivered to 82 homes;
- Further £25m in grant funding secured
 - £5.2m 21/22
 - £17.2m in all Essex consortium 22/23
 - £2.6m for social housing 22/23

Communiheat

- Partnership pilot with [one parish](#) to move one village to net zero



Green Homes Grant Local Authority Delivery Scheme. The scheme has seen eighty two homes upgraded last year. There have been over 5000 applications for the second round of funding.





Built Environment New Build

Schools

ECC new schools EPC A+ & net zero pilots

Work with Partners

- Garden Communities
- [Essex Design Guide](#) refresh with Essex Planning Officers Association
- Training for Planning Officers
- [Developer Group Charter](#)

Skills

- [Green Skills Review](#) published April



Sweyne Park School, Clacton County High School and Colne Community School are the first Essex schools to benefit from new buildings with net carbon design.



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ENERGY



Solar Panels on Roofs

Install Solar panels on every roof I by 2050 - 25% of rooftops by 2030.



Large Scale Solar

Build 1.43 GW of large scale solar on available land by 2030.



Renewable Revolution

Essex self sufficient in renewable energy by 2040,



No Waste Heat

All waste heat to be captured and reused (where local demand exists) by 2035.



Hydrogen

Create facilities to produce green hydrogen to fuel heavy good vehicles by 2040.



Community Energy

Build a network of community energy neighbourhoods by 2035.



Innovation

Make Essex a centre of innovation for emerging renewable technologies



Energy

Renewable Energy Procurement

- 100% ECC energy moving to renewable supply

Renewables on our Estate

- Danbury Country Park, 31 schools, Essex Record Office

South East New Energy

- £6m grant for community solar and storage

Solar Together

- residents bulk buy for solar panels

Community Energy Groups

- Support programme with 4 new groups constituted
- Bringing forward their own renewables investments



Solar Panels in Danbury Country Park & Primary School



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WASTE



Recycling

Accelerate recycling activity to achieve a minimum 70% recycling rate by 2030



Recycling

All Essex residents and businesses to have access to kerbside recycling services by 2025



Green Procurement

Evaluate emission impacts in all procurement decisions



Waste Innovation Fund

Plastic substitution, and local reprocessing capacity



Behaviour change

Establish a network of community-based reuse and repair hubs in Essex by 2024.



Collaboration

Develop the Essex Waste Partnership to fully engage with producers, industry and research bodies



Waste

New Essex Waste Strategy Insourcing recycling centres

Love Essex partnership

- Composting
- Waste busters
- Cloth nappies
- Champions: embedding volunteering

Blueprint for a Circular Economy

- Love your period
- Food waste reduction pilot
- Library of things
- School pilot activity booklet- waste reduction education in Schools.



Essex Library of Things
Our place to reuse, borrow and share





Community Engagement Business

Green Growth Central to ECC Economic Strategy

- Sector Review to identify areas for green growth including:
 - Green energy
 - Green life sciences
 - Green construction

Green Skills review

Net Zero Innovation Network

- Over 80 Essex businesses, Universities developing innovative products to pull in investment

[Essex Net Zero Innovation Network](#) | [Carbon Copy](#)

Advice Pack for Essex SMEs

LOCASE

- Grants for SMEs to decarbonise

[LoCASE](#) | [Low Carbon Across the South and East](#)



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Community Engagement

Communities

- ECC one of only five authorities selected to be part of Involve's [Local Climate Engagement Programme](#) project group
- Proactive Community engagement to inform activity planning e.g. climate focus area
- [£500k Essex Climate Action Challenge Fund](#)-about to award first funds.
- A year-long webinar series for Essex Association of Local Councils and the annual EALC Climate Crisis Conference

Residents

Rolling programme of events and communications including [monthly newsletter](#) Advice Packs

- One for residents and one for schools, launching in May, provides advice on actions they can take to tackle climate change

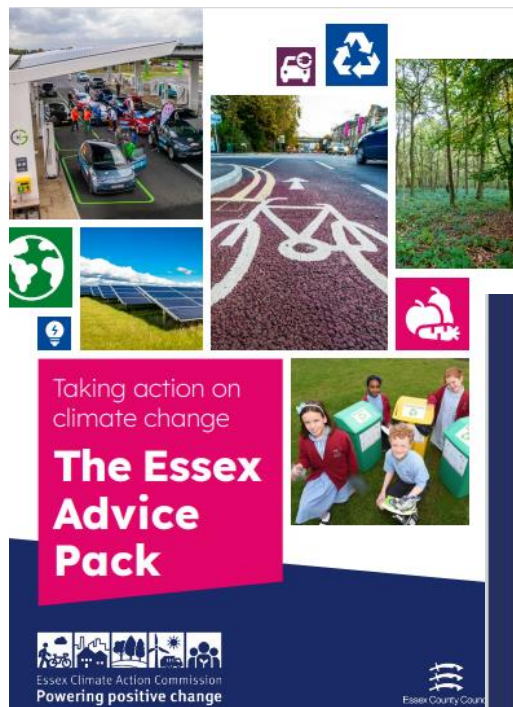
Social media

- [Essex is Green](#) reached over 10m newsfeeds in first year
- Essex is Green Changemakers group: over 200 groups admins meet to share information and gain support
- [Essex Climate Action Commission website](#)



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Advice for Essex residents

Contents

Climate action top 10	4
1. Transport	5
2. Outdoors	8
3. Energy and the Home	11
4. Waste	15
5. Diet	17
6. Useful Apps and Resources	20

“ We are at a pivotal point – a time where every single one of our choices can make a difference to our future, either for the better or for the worse. ”

It's time for all of us to take action on climate change – we can cut our carbon emissions together.

This advice pack is a collection of key advice, tips and information to help you to cut your carbon, to reduce your impact on the planet and help us and the next generation have a better future.

The Essex Climate Action Commission has advised the county of Essex on the key steps to get to net-zero emissions by 2050. In its report: [Net Zero, Making Essex Carbon Neutral](https://www.essexclimate.org.uk/sites/default/files/DS21_7178%20ECC%20Commission_Report_Final.pdf) (www.essexclimate.org.uk/sites/default/files/DS21_7178%20ECC%20Commission_Report_Final.pdf). One of its key recommendations is to signpost Essex residents to good advice and help in the transition to a lower carbon lifestyle.

We are at a pivotal point – a time where every single one of our choices can make a difference to our future, either for the better or for the worse.

Before we zoom in on each individual chapter, let's address the most effective individual actions that we can take. Surprisingly, the impact of certain activities can be quite different to what many of us might expect.

A recent survey of Essex residents conducted by BritainThinks (www.britainthinks.com) on behalf of Essex County Council, compared the expected impact of various pro-environmental choices versus the actual impact. Check out the graph below to summarise what counts the most when taking action on climate change – it might surprise you.

Climate action top tips

In a recent survey, Essex residents were asked what impact they thought certain actions had on tackling climate change – this is what they thought.

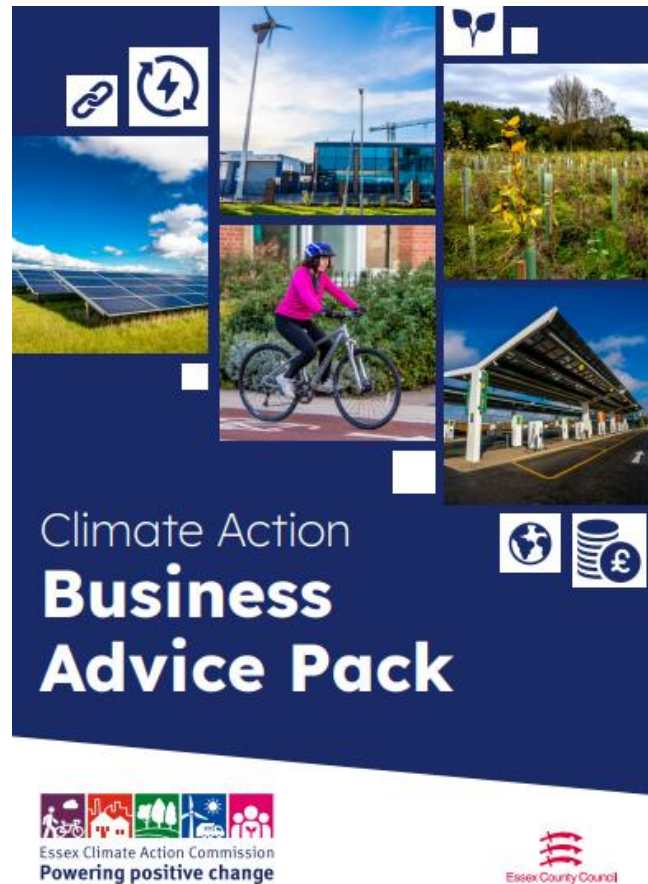
So, what are **REALLY** the top things you can do to help tackle climate change?¹



Percentage of residents who believe each activity has a significant impact on tackling climate change (score of 4 or 5)

¹ Derived from Iwaniec et al (2020), Quantifying the potential for climate change mitigation of consumption options, Environmental Research Letters Volume 15 Number 9 available on www.essexclimate.org.uk/sites/default/files/DS21_7178%20ECC%20Commission_Report_Final.pdf

Advice for Essex Businesses



Contents

In this pack, you will find sustainability advice, resources and guidance in relation to the following areas:

1. Sustainable Business Planning	3
2. Buildings & Energy	10
3. Outdoor Space	16
4. Transport and Travel	20
5. The Green Economy	24
6. Sustainable Business Networks	26
7. Funding	28
8. Resource Links	30
9. Glossary	34

Advice for Essex Schools



This pack contains guidance for...

- **A Framework for Action**
- **On the Way to School**
- **In School and the Classroom**
- **School Buildings: Energy Management and Retrofitting**
- **Outdoor Space**
- **Green Spaces and Green Initiatives Beyond School**

Essex Climate Action

Links to the Advice Packs:

What Can I Do? | Essex Climate Commission

