Suffolk Climate Action Plan

Fostering business and community resilience, reducing carbon emissions and increasing local economic growth

Howard Nurseries Ltd, Wortham: Gold Suffolk Carbon Charter holders.

Cover Image: Forest Heath District Councillors, staff and partners celebrating the launch of the UK's largest Local Authority owned solar farm, Toggam Farm, Lakenheath



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1 Introduction



Mark Pendlington, Anglian Water Group Director & Chair of New Anglia LEP

from Mark Pendlington, Chairman – New Anglia Local Enterprise Partnership

The Suffolk Climate Change Partnership's Action Plan is a rallying call to families and communities, as well as to businesses and all those who care so passionately for a sustainable and flourishing environment.

It's a clear call to action to tackle big challenges and to meet ambitious targets. And it asks us all to take an active role in helping to secure the future of Suffolk and the wider region – and to inspire others to do the same.

This is the third Plan to be published since the Partnership was formed in 2007, and it's a story of continuous improvement that now looks ahead to 2020. All those involved in the Partnership continue to work incredibly hard, with enormous dedication. What has been achieved already, and the quality of this Plan that I have the pleasure to introduce, is thanks to their vision and determination.

Here, the Partnership sets the Actions it will take to adapt to climate change and support the reduction of emissions across Suffolk's communities and businesses. It supports directly our efforts to set a national example of how best to lead in the transition to a low carbon economy. These ambitions are at the heart of the New Anglia Local Enterprise Partnership's Strategic Economic Plan as well as that of the Suffolk Growth Strategy. A strong and dynamic collaboration of people and ideas that ensures a focus is kept and things get done.

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The UK Met Office has reported that 2015 was the hottest year on record since 1850, as well as the sixth wettest on record since 1910, with December 2015 the wettest month. As I write, 2016 looks set to be at least as warm, if not warmer. Extremes of weather are fast becoming the 'new normal', which presents particular challenges to this, the most vulnerable region in the UK to the impacts of climate change, and the most low-lying with up to 30 per cent

of land below sea level. This is also the driest area of the UK, with less annual average rainfall than parts of the Middle East, and yet our population is fast growing too, which brings into sharp focus the need to manage our year-round precious water resources. The rainfall we do get is increasingly falling in high-intensity events, presenting significant management challenges.

The Actions which underpin this Plan support local businesses with new commercial opportunities, enabling them to upskill their workforces, improve their productivity and be even more competitive in the UK and global marketplace.

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The Actions which underpin this Plan support local businesses with new commercial opportunities, enabling them to upskill their workforces, improve their productivity and be even more competitive in the UK and global marketplace. The Actions also help businesses and residents to reduce their energy bills, which supports the retention of a greater proportion of income and business profits within Suffolk. A real 'win, win.'

Let us hope the Paris Climate Change Agreement marks a turning point in our efforts to constrain global warming and avoid its worst impacts. We are wellplaced here in the New Anglia area to lead by example and the Partnership shows what can be achieved when organisations pull together around a common goal, but we have a great deal more work to do.

Together, let's lead the way in the world and show that this is the kind of challenge that we relish here in Suffolk!

2 Suffolk's Headline Targets

The UK Climate Change Act 2008 established a target for the UK to reduce its emissions by at least 80% from 1990 levels by 2050. This target represents an appropriate UK contribution to global emission reductions consistent with limiting global temperature rise to as little as possible above 2°C. To ensure that regular progress is made towards this long-term target, the Act also established a system of five-yearly carbon budgets, to serve as stepping stones on the way.

The first five carbon budgets, leading to 2032, have been set in law. The Committee on Climate Change, which advises the UK Government on emissions targets, states that meeting the fifth carbon budget (2028-32) will require emissions to be reduced by 57% on 1990 levels in 2030.

The carbon budgets (and hence Suffolk's target) are also consistent with reductions needed to meet the Paris Climate Change Agreement: to limit global warming to below 2°C. The progress of the Agreement will be reviewed every five years through the United Nations Framework Convention on Climate Change and its intention is to peak greenhouse gas emissions as soon as possible.

In line with the Act, the Partnership has set its own target:

To facilitate a reduction in absolute carbon emissions in Suffolk of 35% on 2010 levels by 2025 and 75% by 2050, in line with the UK Climate Change Act 2008.

This uses 2010 as the baseline year instead of 1990 as the Climate Change Act does, as the Partnership does not have access to figures for Suffolk prior to this time, but the reduction trajectory from 2010 is consistent with the Act.

The Partnership also sets itself the role of supporting businesses and communities to improve their resilience to a changing climate, an increasingly critical service in our local area.





United Nations Framework Convention on Climate Change

The Suffolk Climate Change Partnership: examples of key achievements to date

Formed in 2007, the Suffolk Climate Change Partnership (SCCP) consists of Suffolk's Local Authorities and the Environment Agency, working together locally with other organisations including New Anglia LEP, Groundwork Suffolk and University of Suffolk under the banner of Creating the Greenest County.

Our work delivers growth within the local economy, through direct support to businesses in reducing energy spend and improving profitability and encouraging the development of local firms involved in delivering low carbon measures within homes and business premises.

Our domestic energy efficiency and fuel poverty reduction work aligns with the Suffolk Health and Wellbeing Strategy, which makes clear links between housing quality and health.

The Plan presented here is the third 'Suffolk Climate Action Plan'. The first Plan was published in 2009 and the second in 2012.

These Plans, aligned with our Partnership approach and strong reputation for delivering projects in support of this agenda mean we have been able to draw in significant levels of external funding to Suffolk, to deliver initiatives which achieve results: some £11.9mn to date. Our latest successful application to the European Regional Development Fund for the 'BEE Anglia' project (total project value: £6.5mn) will enable 1,000 SMEs across Norfolk and Suffolk access high quality energy efficiency advice, with 275 grants available to implement measures to improve their carbon footprint and reduce energy spend. Experience shows that we will be able to assist businesses to identify significant annual savings from their bottom line costs.







Some highlights of project activity we have run in support of the first two Plans:

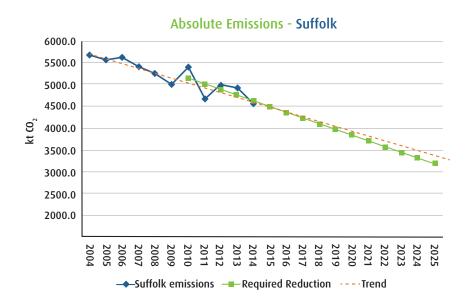
- Our dedicated Environmental Business Advisor service, run in partnership with Groundwork Suffolk, has provided resource efficiency support to more than 850 SMEs and social enterprises since 2009. It has resulted in annual energy bill savings of around £1mn along with annual CO₂ emission reductions of over 4,000 tonnes.
- The Carbon Charter (**www.greensuffolk.org/charter**) has now approved over 350 businesses for their environmental and energy management. The three levels (Gold, Silver, and Bronze) have become the recognised standard for sustainable business in Suffolk. Established jointly by Suffolk County Council and the Environment Agency, the Charter is designed to be appropriate to any SME as a challenging but attainable measure of their progress in environmental management. Company assessments are undertaken by Groundwork Suffolk, with approvals being made by a panel drawn from the SCCP.
- Suffolk Carbon Leaders (www.greensuffolk.org/scl), delivered through 'Carbon Smart' was a Suffolk County Council run project that targeted energy reduction from mid-sized businesses participants had an average turnover of £34.5m. The support they accessed was flexible to their needs and preferences and included a full review of energy saving potential, with support to achieve it, from brokering technical services, access to funding, environmental accreditations (including to the Carbon Charter), staff engagement programmes and much more. Some participants in the programme took the additional support to look at wider or more ambitious projects, such as heat networks or joint procurement activities. The average project participant identified annual savings of 145 tonnes of CO₂ or over £40,000 achievable on a payback of less than 3.5 years. Across the project this was a total saving of £6m or 21,000 tonnes of CO₂. Businesses are achieving around a third of identified savings, i.e. the average project participant has been able to achieve annual savings of almost 50 tonnes of CO₂ emissions and £13,500 in energy savings per year.
- Our domestic energy efficiency programmes have supported over 5,000 Suffolk residents to reduce their energy bills and improve the thermal comfort of their homes, saving many thousands of tonnes of CO₂ annually in the process.
- Offering advice and technical support to improve the energy efficiency of their community facilities, we have helped local groups access almost £500k of funding.



4 Emissions reduction profile to date and progress against the 2025 target

Plotting and extrapolating data previously made available by the Department of Energy and Climate Change (DECC, now part of the Department for Business, Energy & Industrial Strategy) for the period 2005 - 2014 it can be shown that we are currently trending around a 32% reduction in absolute emissions in Suffolk between 2010 and 2025, against our target of 35%.

These are graphed here:



This graph shows that Suffolk's carbon emissions would need to be approximately 600,000 tonnes per annum below their projected 2016 levels by 2020 in order to meet our 35% reduction target. In other words, over the four-year lifespan of this Plan, Suffolk's communities and businesses will need to collectively avoid a total of around 1.5mn tonnes of CO₂ emissions against current levels: equivalent to driving an average car more than 195,000 times around the Earth at the equator!

Note: The data are emissions from the Transport, Domestic and Industry & Commercial sectors and exclude embodied emissions in goods produced elsewhere. The Committee on Climate Change, which advises the UK Government, accepts this is the most appropriate approach for global reporting purposes but estimates that the UK's carbon footprint has increased by around 10% since 1993, as growth in imported emissions more than offset the reductions in production emissions. The UK is now one of the world's largest net importers of emissions (both in absolute and per capita terms), with a carbon footprint that is around 80% larger than its production emissions, reflecting the relatively small share of manufacturing in UK GDP.

Our Plan and associated carbon reduction target is focused on reducing emissions from the UK's Domestic and Industry & Commercial sectors only. Transport emissions reduction is a focus of the Suffolk Local Transport Plan 2011 – 2031 and is not covered here.

5 Governance for SCAP3

This Plan has been developed by the SCCP with the oversight of the relevant Local Authority cabinet member and Portfolio Holders across the county. At an early stage, key stakeholders across the county were consulted in order to identify the appropriate Key Themes to focus on.

The Actions underlying this Plan have been developed and will be implemented in Partnership with the SCCP's members across the county.

This Plan represents the Partners' commitment to take action in support of the wider target for Suffolk, with emissions reduction activity focused on the Domestic and Industry & Commercial sectors. We commit through the Plan to show leadership on this Agenda and to assist organisations engaged in activities which support the realisation of our common goal.

The initiatives, activities and changes in behaviour needed to achieve the nationally identified emissions reductions will require action by central government alongside our local leadership and the support of many residents, communities and businesses which reside here.

Key Themes

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Scope

A: Adaptation – Business and Community Resilience

However successful we are at bringing down carbon emissions, we know that some warming is inevitable and our efforts to reduce emissions are in order to minimise the magnitude of this warming, rather than avoid it altogether. Indeed, we are already seeing many changes to our climate: all but one of the top 16 warmest years on record have been recorded since 2001 for example, and of the 10 wettest years recorded in the UK, 7 have occurred since 1998.

The key challenges for Suffolk include: increased flood risk; water scarcity; health during increasingly frequent extreme weather events; the ability of Suffolk's infrastructure to cope with changing demand and use; organisational resilience to climate change; and changes to natural systems. The local and national collective experience of shocks and changes linked to a changing climate has continued to grow since the 2007 AXA report, which shared the Association of British Insurer statistic that between 2000 and 2006 there was over £9 billion paid out in weather related claims.

In 2013-14, the wettest winter on record saw 3,200 commercial properties flooded and 7,700 homes flooded. The total estimated cost to England and Wales was between \pm 1bn and \pm 1.5bn.

It is estimated that half of all businesses with no effective recovery plans in place fail within 12 months of experiencing a 'disaster' (Business Efficient Resilience Toolkit (BERT)).



Motorists battle through floods on the A12 at Blythburgh ©Archant Suffolk

In 2014 research indicated that the number of annual preventable deaths caused by hot weather in England and Wales was projected to increase from around 2,000 to around 7,000 by the middle of the century (J Epidemiological Community Health).

Accordingly understanding and acting on it has a higher priority than it has had in the past. This theme therefore concerns the holistic management of our area to create resilient communities and encourage sustainable growth whilst protecting our valuable natural and man-made assets. It also concerns our ability to successfully define, communicate and demonstrate the benefit of adaptive measures.

We will work to ensure our communities (used in the broad sense of people who live and work in Suffolk) are prepared for and able to withstand or recover quickly from the shocks and changes that a changing climate will exacerbate.

B: Business Energy Efficiency and Renewables

The Suffolk Climate Change Partnership has been supporting Suffolk's small to medium-sized enterprises (SMEs) to improve their profitability through reducing energy use and carbon emissions since 2008. This continues to be a major area of focus which supports the key ambitions of both the New Anglia and Greater Cambridge Greater Peterborough Local Enterprise Partnerships to increase economic growth, as set out in their Strategic Economic Plans. This work also supports the outcomes identified in the Suffolk Growth Strategy.

The 'Business Energy Efficiency Anglia' (BEE Anglia) £6.5mn ERDF funded project to support business energy efficiency will significantly contribute to this theme.

The long-term approach to achieving our carbon target through this theme is to support, create and add capacity within businesses and empower them to drive this change themselves, whilst working to ensure the finance is there to assist with capital measures. It is also recognised that low or no-cost behavioural and cultural changes through 'soft' measures have the potential to achieve significant savings. Attaining – and maintaining - these savings needs effective long-term support, which is the basis of the Actions set for this Theme.

These Actions will facilitate movement towards an increase in the low carbon economy in Suffolk by acting as a catalyst for the implementation of business energy efficiency initiatives. The targets and delivery for the theme, as outlined in this proposal, align with the New Anglia LEP's Green Economy Manifesto Priority Objectives and Goals:

Priority Objectives	Goals
1. Norfolk and Suffolk leading the green economy	Commitment to green economy Emissions targets Competitive advantage Creating networks
2. Maximise funding and investment opportunities	Funding growth
3. Drive cost, resources and energy efficiency across all sectors	Business resource efficiency Green business services Carbon criteria
4. Communicate effectively and share information to drive sustainable growth regionally and nationally.	Clear messaging

The majority of the actions we present here will be delivered through BEE Anglia, which has defined two clear objectives:

a. To help SMEs deliver energy efficiency savings and reduce carbon emissions to realise the associated business benefits: reduced operating costs and enhanced competitiveness, business growth, and resilience; b. To help foster the necessary conditions and success factors to develop the regional Low Carbon and Environmental Goods and Services (LCEGS) supply chain.

Enabling business influencers through a 'hub-andspoke' model helps to increase the influence of these actions by fostering business culture and behavioural change:



Fig 1: A hub & spoke approach to mass change

C: Community Energy

The Actions for this Theme focus on delivered carbon savings through the provision of direct support to communities and their assets to deliver renewable energy generation or energy saving projects to community buildings, and through the development of other low carbon energy projects across the county.

Multiple community-based projects will be developed and delivered over the period of SCAP3. Community groups will be directly supported to be more environmentally and economically sustainable through this work, which will focus on helping to improve the energy efficiency of community facilities, reducing their running costs and safeguarding these important



Fressingfield Sports and Social Club: saved over £700 a year from their energy bills with the support of the Suffolk Climate Change Partnership's Community Advisor service

community assets for the future. In addition, projects with the aim of placing Suffolk at the forefront of the development of new models of localised, decentralised energy generation for the benefit of its Local Authorities, businesses and communities will be developed.

The range of projects that may be brought forward under this theme is wide and can include Solar PV, Solar Thermal, Air Source Heat Pumps, Battery Storage, Insulation programmes amongst others.

The Community Buildings work will be supported by close working with existing locality officers within the Local Authorities and is expected to achieve a minimum of 42 tonnes of annual CO₂ savings over the lifetime of the Plan. CO₂ reduction targets associated with the projectbased work are being developed and will be reflected in the listed Actions in due course.

D: Domestic Energy Efficiency

This has been a long-term, core focus of the Partnership since its inception. Tackling domestic energy efficiency in Suffolk is a crucial element in our ambition to be the county with the greatest reduction in carbon emissions, as well as in tackling fuel poverty. Our Local Authority partners' work around this supports their obligations under the Home Energy Conservation Act 1995. We have a successful track record in drawing down funds to support this work, including around £6.7mn from the Department of Energy and Climate Change (now part of the Department for Business, Energy and Industrial Strategy) in recent years. We are confident that the Partnership is well-placed to capitalise on future funding streams in order to support this theme through our Suffolk Energy Action initiative and the Actions we set here reflect this.



Anna's Ipswich home before and after her Suffolk Energy Action external wall insulation work.



8 Actions

The Partnership Actions accompanying this Plan cover the key Themes detailed in Section Two above and have been allocated a carbon reduction target where appropriate. Through this joint project work the Partnership commits to annual savings of 1,498 tonnes of CO₂ emissions reductions to 2020, as well as supporting adaptation to climate change across the county and fuel poverty reduction initiatives.

Actions taken by individual LA members in support of this work are also provided. Through this work, Partner members commit to 12,634 tonnes of annual CO₂ emissions reductions to 2020.

A spreadsheet detailing the Actions committed to by the Partnership can be viewed at: <u>http://www.greensuffolk.org/assets/Greenest-County/SCCP/Climate-Change/scap3actions.xlsx</u> This is a live document and will be updated as the work progresses.

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