

increase substantially. This will be a challenge in the current economic climate and therefore there is a pressing need to come together to focus on the following areas:

Significantly increasing meaningful collaboration not only between Surrey local authorities, but also with the Government, communities, the not-for-profit sector and businesses to improve efficiency, and effectiveness of delivery and increase impact. There is already collaboration happening, but more is needed.

Stronger and more focused collective engagement and lobbying. Lobbying priorities will include recognising and supporting the key role of local government in tackling climate change, alongside funding to enable sustained, long-term action. Our engagement activity will ensure that communities and residents are central to, and embedded within, our approach.

A greater focus on supporting all residents and businesses to save energy, reduce energy costs and have easier access to affordable, low carbon energy. Recognising the criticality of the cost of living crisis for so many of our residents, we will work with partners to continue to support residents in fuel poverty as a priority, but look to also increase support to residents and businesses as a whole.

Greater priority to be placed on accelerating local renewable energy generation for example new projects such as rent-a-roof photovoltaic schemes on schools, community buildings and commercial property. These schemes reduce up-front energy costs – a key barrier to the uptake of these measures, but may also generate income, which the Council and partners can utilise to further finance carbon and energy saving schemes across the county and stimulate the local renewable energy sector and creating green jobs.

More resource will be targeted at initiatives and mechanisms to develop a step change in investment. An updated financial strategy that focuses on new funding mechanisms to lessen the huge funding gap that prevents local authorities from meeting their net-zero targets will be developed by the end of the year. It is proposed that this updated finance strategy will be brought back to Cabinet in Spring 2023.

Figure 4: Sustainable and active travel



The sustainable transport plan has a number of schemes to promote active and electrified travel. £13m grant funding has been awarded for active travel schemes, and so far up to 1000 residents signed up to the BetterPoints app that rewards active travel. Surrey County Council has contributed £50m towards improved bus travel and is currently rolling out Surrey-wide EV charging infrastructure.

Figure 5: Supporting small businesses with the Low Carbon Across the South and East (LoCASE) programme

Low Carbon Across the South and East or LoCASE is an EU funded programme which offers grants of up to £20k to SME businesses for energy efficiency and decarbonisation measures. To date 55 business have been supported with grants resulting in emissions reductions of 321 tonnes of carbon per year, £1.4m investment in low carbon technologies and bill savings of £232k per year.

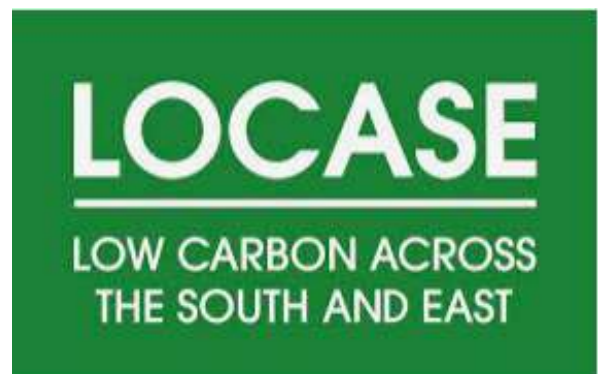


Figure 6: Green Social Prescribing Programme



Surrey Heartlands is one of 7 test and learn sites as part of the 2-year national Green Social Prescribing Programme. The programme is testing how to scale up and embed green social prescribing into communities in order to reduce health inequalities and reduce demand on health and social care. Through grant-funded programmes, residents are engaging in nature-based activities to improve their mental health. As well as improved wellbeing, nature connectedness is proven to increase pro-environmental behaviours.

“Sometimes getting out of bed is a challenge, now all I have to do is think of how I felt in the river and let my doubts and worries wash over me”. Wild Swimming course participant, 2022

Figure 7: Effective lobbying at the Farnham Active Travel Roadshow

The Farnham Active Travel Roadshow event, livestreamed for COP26, highlighted the challenges and potential solutions to decarbonise Surrey’s transport system. 40 partners came together including local eco-schools, the University for the Creative Arts, Farnham Town Council, Shifa South Asian Women’s Network Woking, Canyon e-bikes, Energy Saving Trust and Metrobus. Engagement on social media reached over 1 million people, and the event was featured on local radio stations and BBC London.



How are Surrey local authorities progressing actions to reduce carbon? The Greener Futures Climate Change Delivery Plan set out what local authorities are intending to do between now and 2025 to create a step-change in reduction of emissions. Progress in the delivery of 36 priority projects - considered to be the most impactful - have been highlighted in this report. Where possible we have explained the extent to which our actions have helped towards meeting the net-zero target. Table 2 shows the traffic-light system used to signal the extent to which key projects are on track.

Table 2: How progress has been measured

Green	Progressing on schedule within the resources available.
Amber	Progressing off-schedule, but plans are in place to enable it to become on-schedule.
Red	Significantly off-schedule and recovery actions may not enable progress to get back on track.

How can we be more effective in future? As well as looking at progress, we have considered how our risk management, engagement and approach to finance will deliver lasting change, and what changes we need to make to stay on track.

Minor adjustments in ambition do not significantly affect the overall picture. Predicted progress against net zero targets (shown in figure 8 as the level of ambition) has been used to judge whether enough action is being taken across Surrey. An updated assessment suggests that Surrey will need to reduce emissions slightly faster than our original data suggested. This would change our level of ambition in 2025 from 19-36% to 21%-41%. By 2050, we expect to achieve emission reductions of between 70-94%. Whilst the plan seeks to reduce as much carbon as possible, the evidence continues to suggest that offsetting will be needed for the county to become carbon neutral.

Local authority action only forms part of the picture. Local authorities directly control less than 1% of Surrey's carbon emissions, so the ability of Surrey to stay on track to meet our 2050 target is dependent on many wider factors. Influencing national government to align policies and funding with the scale of the challenge continues to be critical, along with partnership working to encourage action from Surrey's residents, businesses and public sector.

There is a need to address emissions that fall outside the scope of the net zero target. Indirect emissions occur outside of Surrey but are influenced by those who work, live and visit Surrey. It is not yet possible to measure indirect emissions in a way which allows us to track progress, so they are not included in the 2050 target. However, these emissions are around 2 to 3 times larger than emissions that fall within the scope of the target. Therefore, encouraging residents to use, and businesses to supply sustainable goods and services will continue to be an important part of the county's aspirations to mitigate future emissions.

3.2 Household Energy Use

Fuel poor and vulnerable residents

In addition to maximising the delivery of Sustainable Warmth grants to fuel poor households, resources have been prioritised to provide additional advice and support in response to the rise in energy bills. Further government and external funding is needed to accelerate grant programmes and expand action to reach a wider group of at-risk households.

Progress	Summary	Risks, issues and mitigation
Sustainable Warmth (Green)	Local Authority delivery of Sustainable Warmth grant funding to decarbonise fuel poor homes continues to out-perform other regions by gaining the maximum grant funding and allocating over 90% of it.	Likely future price increases due to material and skills shortages may reduce the cost effectiveness of the scheme. A 5 year contract is being implemented which will include focus on growing green skills in county.
Energy bill campaign and warm hubs (Green)	An engagement energy-focused campaign launched in September, with an accompanying energy advice tool. Community buildings have been identified as warm hubs for those in need.	Ways to avoid low engagement or reach with the campaign is being mitigated through refined messaging based on social media feedback. A funding bid to VCMA, SGN and Cadent if successful, will protect warm hubs who need to pay high bills.
Landlord engagement pilot (Amber)	Elmbridge and Surrey County Council are leading a pilot to identify and engage with landlords whose homes are not compliant with minimum energy efficiency standards.	A decision will be made on whether to expand the pilot depending upon the extent to which landlords improve their properties following engagement.

The ambition in the plan that 20% of fuel poor and vulnerable homes be decarbonised by 2025 is not possible to fully measure:

The Greener Futures Climate Change Delivery Plan sets out the need for 32,713 fuel poor and homes to be decarbonised by 2025, saving 118 ktCO₂e per year by 2025. This includes 20% of those who meet the definition of fuel poor, that local authorities are looking to support through Sustainable Warmth grant funding and improvements to local authority-owned social housing. It also includes 20% of vulnerable groups who are likely to need additional help to invest in low carbon technologies needed to reduce emissions and bills. Councils will support a proportion of these by linking them up with wider information and services through developing an energy advice tool. Whilst we can estimate emissions savings and the number of homes impacted by our actions, the data does not yet enable us to measure progress from the wider set of organisations that reduce emissions on behalf of the fuel poor and vulnerable, such as social and private landlords.

Sustainable Warmth grant funding is not enough to reach 20% of fuel poor households by 2025, or the depth of decarbonisation per household. Sustainable Warmth grant funding is a key route to treating fuel poor homes, alongside improvements taken forward by the social housing and private rented sector. To be in keeping with the pace and scale set out in the Delivery Plan, grant funding would need to upgrade 1,100 homes per year to 2025, with each home saving around 3.7 tonnes of carbon. So far, the grant funding has enabled 724 homes to be reached, with an average emission saving of 1.4 tonnes per household, so further funding is needed.

For those who receive funding, the benefits are significant. On average, Sustainable Warmth grants reduce energy bills by around £660 per year. For households which have so far received low carbon measures, the total lifetime savings are estimated to be around £11.5M⁸.

Numbers of households at risk of fuel poverty are likely to rise sharply. The number of fuel poor households has risen from 6.1- 6.9% between 2019 and 2020. Despite a refocusing of effort, there is significant opportunity to do more with landlords, social housing and the vulnerable.

Low carbon retrofit of homes

The success of the Solar Together pilot has demonstrated that there is an appetite from residents to invest in low carbon

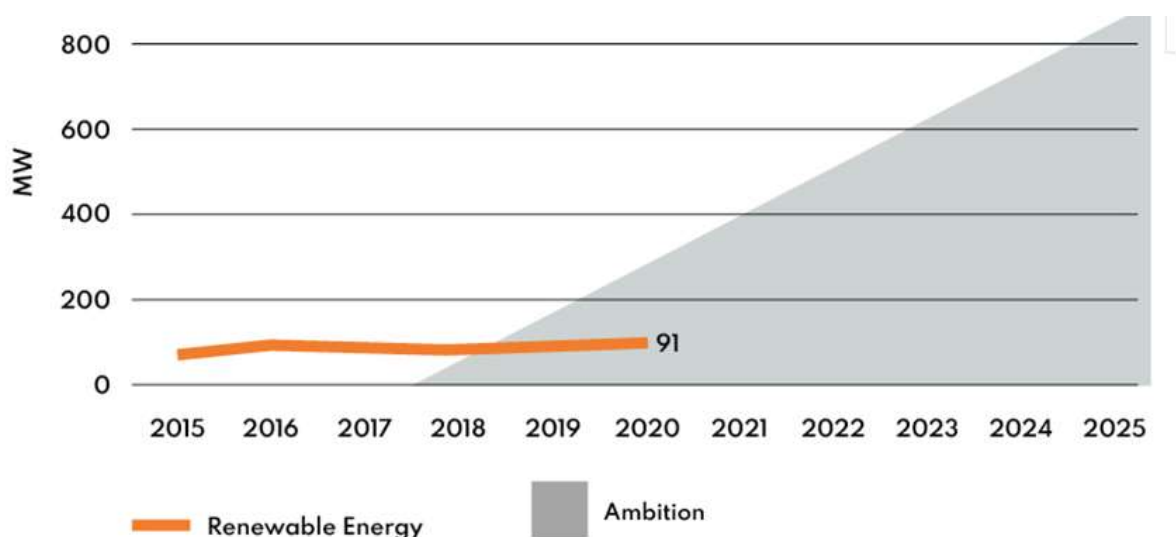
⁸ This estimate was made prior to the significant increases in energy prices, so may currently be much higher,

technologies. There is huge scope to leverage private sector investment in this area, and further capacity is being developed within the SCC Greener Futures team to bring forward new projects.

Progress	Risks, issues and mitigation	Progress
Solar Together pilot (Amber)	Take-up of the pilot collective buying scheme exceeded expectations, resulting in the installation of solar panels achieving 5.6 MW of renewable energy.	Officers are exploring options to deliver similar schemes through the Sustainable Warmth delivery partner.

More action is needed to trigger investment in low carbon measures in 2- 13%⁹ of homes envisaged by the Greener Futures Climate Change Delivery Plan to achieve a carbon saving between 32-441 ktCO₂e. Significant barriers to rapid household retrofit remain, the most significant being the cost and complexity of installing low carbon alternatives and a lack of skilled workforce. New schemes, similar to Solar Together, need to come from local authorities, national government and the low carbon business sector.

Figure 10: Renewable energy deployment compared with ambition



⁹ Equivalent 9,000-64,000 households, which is the range needed to meet the level of ambition set out in Figure 9.

Key low carbon technologies are not being deployed at the rate needed to meet net zero targets. Installation of low carbon heating and renewable energy are essential to transition energy use away from fossil fuels. Although the opportunities for renewables are huge, deployment rates are hampered by high capital costs, uncertain return on investment, and barriers such as planning.

Households without low carbon measures will be disproportionately exposed to high energy bills. Despite a reduction in emissions, overall energy consumption has increased. Deployment of insulation and on-site renewable energy are a significant opportunity to shield residents and businesses from high energy prices.

Local authority led solar schemes can have a significant impact. In just over a year, the Solar Together scheme mobilised around £8m in private investment and deployed approximately 50% of Surrey's PV capacity installed since 2017.

Lack of national progress highlights the importance of low carbon heating. The carbon intensity of the electricity grid is falling. But u emissions from gas have hardly changed, and gas use has increased. The roll out of low carbon heating is very low in Surrey; less than 1.5% of existing homes and 3% of new builds have low carbon heat pumps installed.

3.3 Transport

Active and sustainable travel

The development of strong active travel infrastructure plans, bus service improvements and encouraging residents to travel more sustainably have been prioritised by the Council and its partners.

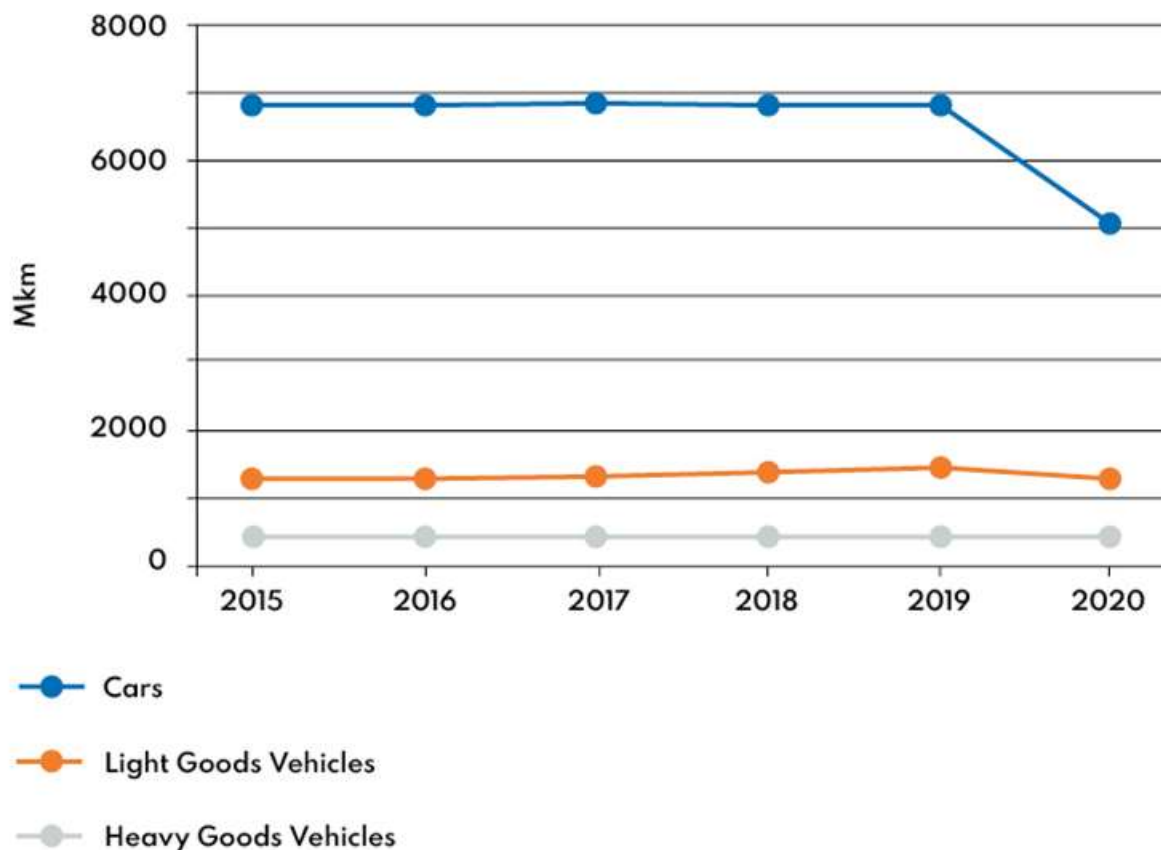
Reducing car use alongside successfully rolling-out key sustainable transport infrastructure will be essential to further reduce carbon emissions. Doing so will be even more important in the face of a challenging funding environment and an increasing reliance on car use across the county.

Progress	Summary	Risks, issues and mitigation
Active travel infrastructure (Green)	On track for most Local Cycling and Walking Infrastructure Plans (LCWIPs) to be complete by March 2023, from which a prioritised pipeline of projects is being built. Work to roll out Liveable Neighbourhoods is in the early planning stage.	National funding is likely to fall far short of what is needed to fully reform active travel infrastructure. The project development of key cycle routes, active travel schemes and the use of all funding opportunities will maximise the impact of national funding.
Bus Service Improvement Programme (Amber)	9 electric buses are in operation and 54 hydrogen fuel cell buses are expected to come into service from 2022. The Council's Bus Service Improvement Plan, drafted in partnership with bus operators, will be revised in 2023 following a consultation.	The £120m sought to decarbonise public transport remains unfunded by Government. However, the Council is investing c. £50m of its own funding in zero emission buses and mini buses, more bus priority measures and more real time passenger information. A lobbying strategy seeks to secure future funding.

Progress	Summary	Risks, issues and mitigation
Active Travel Engagement Priority (Green)	Research on motivation and barriers to active travel has been completed and used to create a major social media campaign that launched in September 2022. The BetterPoints app is on track to attract 2,000 users by March 2023.	There is a limit to which stand-alone active travel engagement will be effective without a complimentary change to infrastructure and other policies to make active or sustainable travel the most convenient choice. Officers are linking to LCWIPS and future funding opportunities.

The rate of emissions reduction from private and commercial vehicles has been helped by Covid-19, and therefore is not likely to last. The ambition stated in the Climate Change Delivery Plan is to reduce emissions from vehicles by 16- 31% by 2025. This is equivalent to taking around 376,000– 493,000 petrol and diesel vehicles off the road. Emissions from transport reduced by 19% in 2020 when Covid-19 lockdowns occurred. These are likely to be temporary changes in behaviour as opposed to the permanent replacement of fossil fuel vehicles and journeys with more sustainable options.

Figure 11: Road use in Surrey by vehicle type



Trends in road transport show that the county has some way to go in achieving the step change reduction in its reliance on petrol and diesel motor-vehicle use. Figure 11 shows that car ownership was at its highest point in 2021 with an average of 1.3 cars per household. Covid-19 aside, figure 11 shows that total road use in Surrey has been largely static over the last 5 years with the exception of light commercial vehicles (vans) which continue to increase. These trends suggest that action is needed to encourage residents and businesses away from non-essential private vehicle use.

Encouraging increased use of public transport remains a challenge. Bus use has been slowly declining and reduced sharply by 76% in 2020 due to Covid-19. More recent data has shown that bus services have not yet returned to normal and are 80 to 90% of pre-Covid passenger levels.

Active travel has remained largely static. Although the nature of travel by bike and walking shifted during Covid-19, overall levels have not significantly changed. For example, the proportion of those who cycle

between 3 and 5 times a week have remained at between 3- 6% of Surrey residents.

Vehicle electrification

Good progress has been made to roll out EV chargepoints in public places, but low carbon vehicles need to rapidly replace fossil fuel cars and vans to be in keeping with our net-zero target.

Progress	Summary	Risks, issues and mitigation
Public EV charging infrastructure (Green)	Pilots to install 80 and 110 chargepoints have paved the way to launch a long-term procurement for a scaled-up roll out of charging infrastructure. This will deliver a minimum of 300 charging points per year starting in 2023.	Identifying suitable sites and achieving geographical and social equity is the key challenge, which is being mitigated through contract arrangements, additional funding and active consultation with residents.

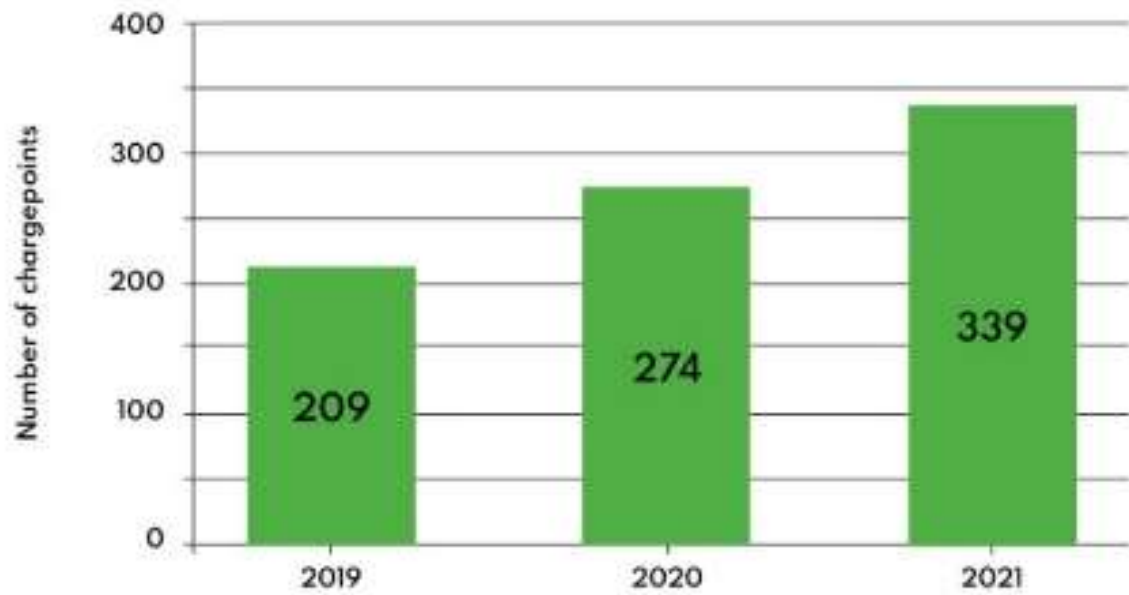
The shift to electric vehicles is happening, but not at the pace needed to meet carbon targets. In 2021, the number of low emission vehicles owned by Surrey residents was at its highest rate at 2% of Surrey registered vehicles. But it is still too low when 48% of vehicles need to be electric by 2025 in order to be on track to meet net zero targets.

The roll-out of EV chargepoints is likely to have a significant benefit. The number of publicly available chargepoints in 2021 was estimated to be 357. From 2023, the new contract is expected to add at least 300 chargepoints per year, doubling available supply.

The number of chargepoints that need to be deployed by the public sector to fill the gap remains uncertain. It is expected that the private sector will continue to deploy chargepoints where there is a commercial case to do so, but that the public sector will need to intervene where there is not. Very high-level estimates suggest around 10,000 chargepoints will need to be deployed by the Council and its partners in Surrey by 2030. But this figure must be kept under regular review as it

will depend on the roll out of EV charging by businesses, new technology and demand at the available locations.

Figure 12: Number of publicly available chargepoints.



3.4 Businesses

Action has focused on support for small businesses, with a developing approach to influence larger businesses and close the green skills gap. There is significant scope to further influence businesses and leverage private sector funding for low carbon projects.

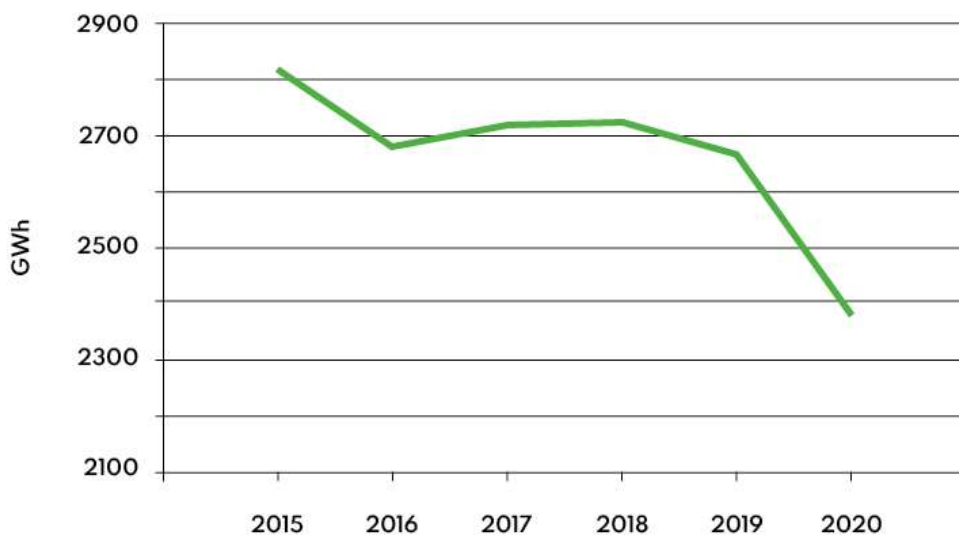
Project	Summary	Risks, issues and mitigation
LoCASE (Green)	The programme is attracting the highest numbers of applications and funding compared to other regions who form part of the scheme. To date 55 businesses have been supported.	Following the end of the LoCASE programme in August 2023, the UK will not be eligible for further European funding. Surrey County Council is exploring a zero interest decarbonisation loan scheme for SMEs in partnership with Borough and District Councils.
Business engagement (Amber)	A number of local authority events, the CREST Green Business Awards and targeted engagement with the top 250 largest businesses in Surrey has taken place.	There is scope to form a more comprehensive engagement plan for businesses where the benefits of the engagement can be measured.
Support for a sustainable business network (Amber)	The Sustainable Business Network was launched in June 2022 by Zero Carbon Guildford and the University of Surrey, with the aim to grow to cover the whole county.	University of Surrey research suggests that there is a capability and capacity gap for small businesses to develop carbon management plans. Support can be provided through LoCASE and the Sustainable Business Network.

Project	Summary	Risks, issues and mitigation
Business innovation (Amber)	The Developing Innovation fund is likely to have a significant focus on the development of sustainable and low carbon solutions.	The focus and total funding allocation has not been established, so the impacts on growing the sustainability of businesses and provision of goods and services is not yet clear.
Green skills (Amber)	Progress has been made in determining priority sectors with green skills gaps in Surrey and exploring potential interventions. A pilot project to train new heat pump installers is to be run in early 2023.	Green skills gaps may be best addressed as part of Surrey Skills Plan initiatives, rather than a standalone Green Skills Academy as initially envisaged. This ensures green skills are 'mainstreamed' with training providers and employers, and reduces the risk of duplication of activity.

Significant reduction in business energy emissions is likely due to Covid-19 restrictions but also more energy saving measures. The Greener Futures Climate Change Delivery Plan sets out the need for the county to support the decarbonisation of around 7,800- 25,000 businesses by 2025¹⁰. Electricity and gas consumption have shown a significant reduction in 2019 and 2020 compared to previous years. The proportion of non-domestic properties that have a “good” energy performance certificate (EPC) rating of between A-C has increased from 47% in 2018 to 62% in 2021.

¹⁰ Equivalent to 8-26% of businesses, which is the range needed to meet the level of ambition set out in Figure 8.

Figure 13: Electricity use in non-domestic properties in Surrey



Industrial processes in Surrey produce a significant proportion of emissions. Greenhouse gases that arise from the manufacture of products make up around half of the carbon emissions produced by industry, and around 3% of Surrey’s carbon emissions.

Predictions in demand for low carbon jobs reveals a significant and growing gap in skills. By 2030, around 11,650ⁱⁱ workers from Surrey will be needed in jobs that service the low carbon sectors such as green construction and installation of heat pumps and renewables.

Less data is available for the commercial and industrial sectors, making it harder to draw useful insights. Most of the data used for this part of the assessment was “non-domestic” which includes commercial, industrial, public sector and other community buildings. No data was found to consider trends in the change in goods and services towards a low carbon economy.

3.5 Supporting Community Action

Community empowerment to reduce emissions has initially focused on community energy, schools and the cost of living crisis.

Progress	Summary	Risks, issues and mitigation
Community Energy Pathway (Green)	Community Energy South is actively supporting the development of 13 carbon reduction projects led by community groups, including a large project working with the Woking Mosque.	Funding for the Community Energy Pathway pilot will end in March 2023 and officers are exploring options to bring its delivery in-house, linking to funding opportunities such as Your Fund Surrey and Community Infrastructure Levy.
Schools Engagement Priority (Green)	Support has helped to increase the number of schools with Green Flag status from 52 to 73. 61 schools joined the Teachers Environment Network and there were 110 participants at the Eco-Schools Summit.	There may be further scope to maximise carbon reduction through other schemes or through wider Schools engagement. However, an application fee may prevent some schools from joining the Eco-Schools scheme.
Surrey Schools Programme (Green)	An offer to help schools install low carbon measures to reduce their energy emissions is underway, alongside a pilot to install heat pumps in 5 schools utilising government funding.	The installation of low carbon heating can drive up energy costs, putting further pressure on already stretched school budgets. To offset any potential cost increases, officers are exploring opportunities to install Solar PV on school sites.

Progress	Summary	Risks, issues and mitigation
Community engagement priority (Green)	Increased connection with community groups has led to the formation of new projects such a more co-ordinated effort to support people in fuel poverty.	There is further scope to co-ordinate community engagement and amplify effort more widely across the local authorities. New opportunities include the Surrey Food Strategy.
Volunteering (Green)	To complement the roll out of Community Link Officers, the development of a strategy to improve and co-ordinate volunteering in Surrey is underway to be implemented in 2023. Volunteering opportunities linked to green skills, such as Domestic Energy Advisors, will create job opportunities.	Officers are exploring an approach which broadens the scope of volunteers and channels effort to achieve the greatest benefits, including trailing the Green Social Prescribing project with Surrey Heartlands.

3.6 Planning infrastructure and place-making

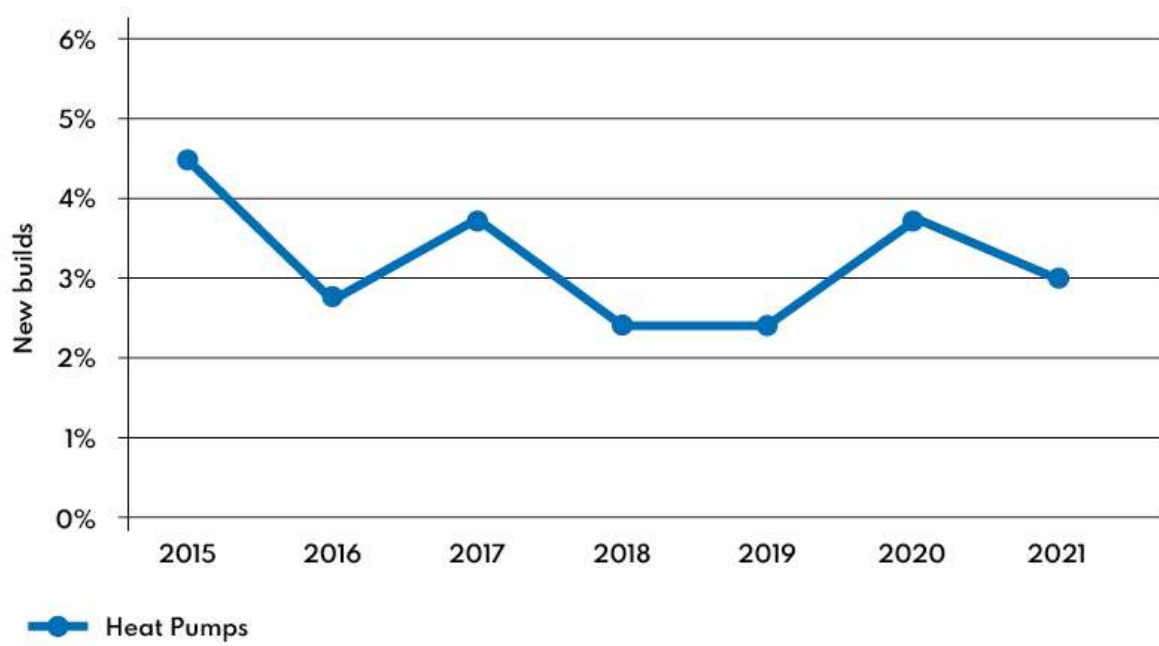
Avoiding the additional cost and disruption of retrofitting buildings with low carbon or climate adaptation solutions, and managing weather extremes have been prioritised.

Progress	Summary	Risks, issues and mitigation
Infrastructure projects (Green)	<p>Decarbonisation opportunities are being embedded into the Council's infrastructure programmes. This is being done through reforms to the decision-making progress on major projects, upskilling project developers and the development of a low carbon infrastructure tool.</p>	<p>There are many teams and programmes developing projects with an impact on climate change, resulting in additional complexity when developing a clear process. A decision on whether to develop a low carbon calculator to support this process is under consideration.</p>
Climate Compatible Planning Policy (Amber)	<p>Initial engagement with stakeholders and scope of work has been undertaken, but delays in the recruitment of a Climate Change Planning Officer has slowed down progress.</p>	<p>Planning reforms that offer consistently high standards across all Local Plans in Surrey will depend on a high level of co-ordination, political will and a strong evidence base. The Climate Change Planning Officer will be able to support alignment of Local Plans. National planning reforms may have an impact on our proposals and is being included in the Greener Futures Lobbying Strategy.</p>

Progress	Summary	Risks, issues and mitigation
Climate Adaptation and Resilience Plan (Green)	Early consultation with stakeholders has helped to scope the plan and identify a range of key actions, with a view to completing the plan by March 2023.	Following the publication of the Strategy and action plan, the main challenge will be the rapid scale up of action and the co-ordination required to adapt to and mitigate climate change risks. Officers are considering how best to resource.

There is a clear case to strengthen local planning policy. Analysisⁱⁱⁱ shows that new developments can be future-proofed by installing low carbon measures during the build at much lower cost rather than adding them in later. Energy efficiency data shows that ending the installation of gas boilers in new-builds and increasing energy efficiency will avoid the release of significant carbon emissions and the cost of retrofitting the property in future, borne by Surrey residents and businesses. Even though there has been a slight increase in the proportion of new homes with heat pumps installed, it still only amounts to 3% of total new-build properties.

Figure 14: Percentage of heat pumps installed in new-build properties



3.7 Maximising carbon sequestration through better land management and natural capital

In addition to high levels of tree planting and the delivery of grant funding for farmers, plans are being put in place to improve land management for carbon sequestration, biodiversity and wildlife protection.

Progress	Summary	Risks, issues and mitigation
Land Management Framework (Green)	Preparation has begun to develop the Local Nature Recovery Strategy (LNRS) and local priorities map.	The timescales to deliver the LNRS will be tight and government has not yet released the guidance. Officers are developing a steering group with key partners to influence decisions.
Woodland management (Green)	Two Countryside Stewardship schemes of 86ha are in place and work is ongoing to establish woodland management plans.	This work will need to be scaled up to cover all SCC owned woodland plans to achieve the maximum benefits.
Tree planting (Amber)	Work to facilitate meeting the 1.2m target of new trees and hedgerow plants is on track. To date over £600k funding has been raised and 333,749 trees have been planted.	Barriers to planting on local authority land remain significant and could put the 1.2m new trees target at risk. Officers are using GIS mapping to identify planting and achieve wider benefits such as flood mitigation.
Natural Capital Investment Strategy (Amber)	A specification is being developed to identify opportunities to restore and enhance biodiversity on Surrey County Council land	From Jan 2023, a business case will be developed to deliver the investment plan. A forecast of biodiversity credit requirements and opportunities for habitat restoration will be developed, in preparation for the Biodiversity Net Gain legislation.

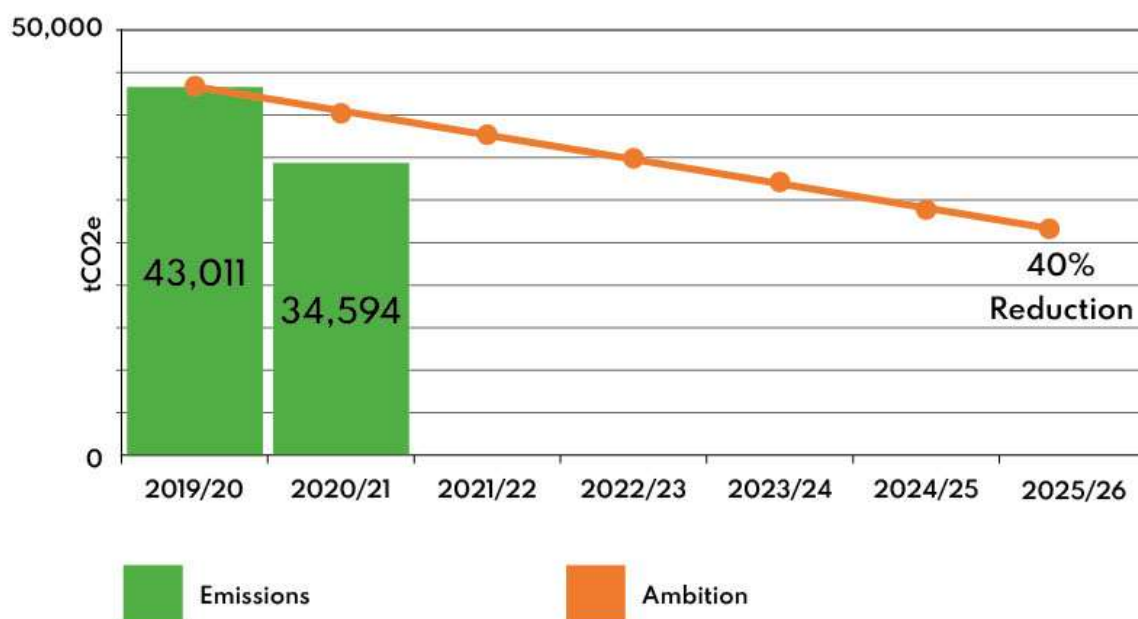
Progress	Summary	Risks, issues and mitigation
Farming in Protected Landscapes (Green)	£200k of grants were awarded through the Farming in Protected Landscape (FiPL) programme in 2021/22 with another £280k on track for delivery in 2022/23. The whole programme will have brought over £1m investment.	The funding runs until March 2024 when it is anticipated that Defra’s ELM programme will have been launched. We will continue to work with farmers and landowners and feed into the Defra evaluation of FiPL with the expectation that elements of the programme will be integrated into future schemes.

4. Local Authority Ambitions

4.1 Local authority carbon emissions

Collectively, Surrey's local authorities¹¹ are broadly on track to achieve a 40% emissions reduction by 2025, but emissions vary significantly between the Borough and Districts Councils and may increase following Covid-19 restrictions. Emissions from local authorities have reduced by 20%, which is broadly in line with what is needed to become net zero by 2030. 7 out of 12 authorities have achieved emission reductions of between 13% and 37%. One authority has been unable to provide data. More detail on Surrey County Council's net zero programme is set out in a separate report^{iv}.

Figure 15: Change in local authority carbon emissions



¹¹ Including 11 Borough and District Councils and Surrey County Council.

4.2 Estate and fleet decarbonisation

Many local authorities have started retrofit and fleet decarbonisation programmes and have a pipeline of potential projects, but it is too early to assess the impact of these programmes on the net zero target.

Progress	Summary	Risks, issues and mitigation
Political commitment (Green)	All local authorities have organisational emission targets and have published action plans. Most have dedicated resource to stimulate climate action.	Internal resource to progress action plans remains challenging. Steps to pool knowledge and collaborate is already occurring, but there is scope to further increase the effectiveness of that collaboration.
Retrofit, fleet decarbonisation and renewables (Amber)	7 local authorities have programmes to decarbonise buildings and fleet that they own and operate, collectively raising £7.8M in grant funding from the Public Sector Decarbonisation Fund. 14.5kW of Solar PV has been installed with a further 30.5MW of renewable energy generation being planned.	Available grant funding is not sufficient to achieve retrofit on the scale needed to decarbonise all local authority buildings. Training has been undertaken to improve the capacity of local authorities to build successful solar PV farm projects which would have a significant return on investment.

4.3 Indirect emissions

All local authorities are taking some action to reduce indirect (scope 3) emissions, and 10 out of 12 local authorities have started reporting these, but it is not yet possible to consistently monitor progress.

Progress	Summary	Risks, issues and mitigation
Staff travel (Amber)	Most local authorities have policies that encourage active travel, such as the Cycle to Work scheme.	Most staff travel plans require further development to achieve a significant step-change in reforming local authority business travel and staff commuting.
Procurement (Amber)	Some local authorities have sustainable procurement policies in place, and many are now looking to increase environmental considerations when purchasing goods, works and services.	A collaborative effort has resulted in the Environmentally Sustainable Procurement Policy that could also be adopted by other local authorities to take a consistent approach and deliver a high standard of sustainable procurement.
Staff behaviour (Amber)	Local authorities undertake a range of activities to encourage staff to be sustainable. Around 1000 staff have had some climate change training across 8 local authorities.	The impact of these actions is hard to measure and there is further scope to collaborate to roll out Carbon Literacy Training to all local authority staff and Members. Local authority staff are being trained to scale up Carbon Literacy Training efforts.

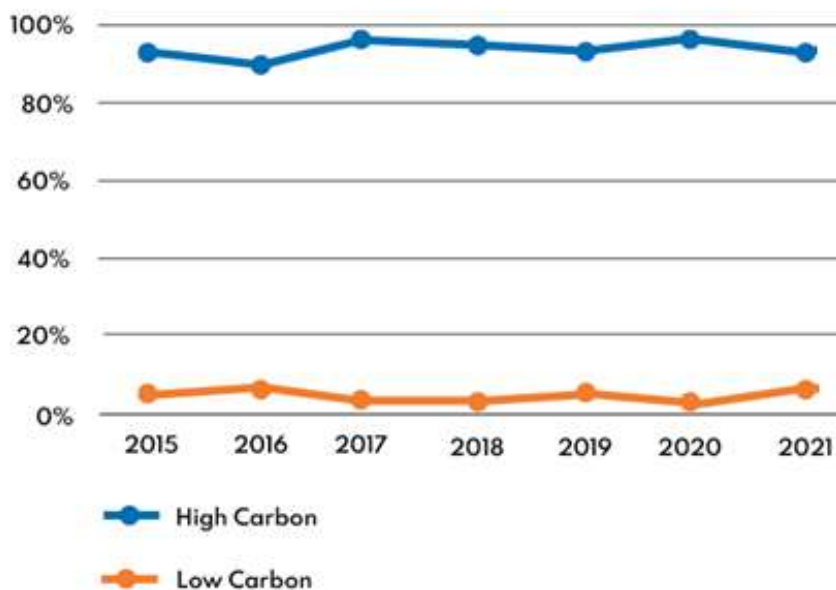
4.4 Public sector

Some partnering and advice is being provided to other public sector bodies to help them achieve similar ambitions to quickly reduce their carbon emissions.

Progress	Summary	Risks, issues and mitigation
Support other public sector organisations (Green)	Local authorities dedicate staff time and expertise to support the decarbonisation of other public sector bodies such as Surrey Police and the NHS.	Resources may prevent more in-depth support, however there are opportunities to work more innovatively with academia through work placements and contracts for engagement such as the Local Transport Plan 4 consultation with the University for the Creative Arts.

Data gaps prevent a more in-depth understanding of emissions from the wider public sector. Non-domestic buildings and transport data do not break down into commercial and public sector. So far, no appropriate data has been found to monitor emissions reductions from healthcare services , Police, and Academia.

Figure 16: Heating in large public sector buildings



Low carbon heating has been identified as a key challenge for the public sector. Figure 16 shows that energy efficiency data shows that almost all public sector buildings of a significant size have high carbon sources of heating such as gas or oil, making financial support for the decarbonisation of public sector buildings, such as schools, particularly important.

4.5 Borough and district councils' case studies

Figure 17: Elmbridge Borough Council

Elmbridge Borough Council will be introducing the use of biofuels, which come from used oil from the food/restaurant industry, in the Autumn. The project is an interim measure to reduce the carbon emissions of the Community Support Services Transport Fleet while the Council moves through a phased transition to a decarbonised fleet by 2030.



Figure 18: Epsom and Ewell Borough Council



Epsom and Ewell Borough Council has begun installing 18 electric vehicle charging points within their own car parks. Some will be Park and Charge points which enable people to pay for both charging and parking their electric vehicle at the same time. Two sites have been completed at Hook Road car park and the Ashley Centre. The new charge points will support drivers to make the switch to electric vehicles and forms part of the council's aspirations to provide more sustainable transport options in the borough.

Figure 19: Guildford Borough Council



To meet nature recovery goals, Guildford Borough Council has identified that the areas most in need for tree planting are their housing land areas. These have historically not been replanted when lost or have always been grass verges with very little bio-diversity. Their aim is to restore these areas for nature recovery, using small 'habitat' islands of native tree and shrub species to encourage nature and wildlife back into these areas. As a partnership, the treescapes fund has enabled us to start to do this.

Figure 20: Mole Valley District Council

In February 2021 Mole Valley District Council was one of a few authorities to secure £468K from the Public Sector Decarbonisation Scheme. The grant funded installation of LED lighting at Dorking Halls, and Air Source Heat Pumps at the Council's Offices and Dorking Halls. The measures are expected to save a significant 160 tonnes of carbon emissions a year, which is equivalent to planting 640 trees. These measures are part of Mole Valley District Council's commitment to becoming carbon neutral by 2030.



Figure 21: Reigate and Banstead Borough Council



The parking team at Reigate and Banstead Borough Council use two electric cars and two electric vans to carry out their work, making their fleet two-thirds electric. This represents an important milestone in their journey to transition their fleet to low-carbon alternatives and become a net zero carbon council in relation to their own operations by 2030.

Figure 22: Runnymede Borough Council

Runnymede are looking at changing their current and future fleet's fuel use to Hydrotreated Vegetable Oil (HVO). This would form part of their upcoming fleet and fuel strategy, subject to agreement by Members. The depot improvement plan includes looking at a new fuel tank and fuel management system so they can store and use HVO.



Figure 23: Spelthorne Borough Council

Construction has started on Spelthorne Borough Council's new Passivhaus leisure centre, which aims to be the first wet and dry sports Passivhaus leisure centre in the world. It will be extremely energy efficient and is expected to use 60 and 70% less energy than a typical modern leisure centre whilst providing state-of-the-art leisure facilities.



Figure 24: Surrey Heath Borough Council

Over 1000 native trees have been planted by Surrey Heath Borough Council on one of their Suitable Alternative Natural Greenspace (SANG) sites, capturing carbon dioxide and restoring biodiversity to a former Golf Course, now a popular greenspace.



Figure 25: Tandridge District Council



Following a £4.9 million investment, with grant funding from Coast to Capital, Tandridge District Council has improved insulation, upgraded windows, installed a heat pump heating and cooling system as part of their refurbishment of Quadrant House, a prominent mixed-use building in Caterham town centre. Further, a living wall has been installed to encourage biodiversity and improving air quality whilst also increasing the attractiveness of the local area.

Figure 26: Waverley Borough Council



Waverley Borough Council played a key role in the development of a Local Cycle and Walking Infrastructure Plan (LCWIP). Recognising the rural nature of Waverley with its hills and dispersed village communities, Waverley coordinated a grassroots campaign of data gathering to define over 20 Core Walking Zones and a strategic network of cycle routes. This cemented local stakeholder input and engagement at the very start of the project.

Figure 27: Woking Borough Council

In 2020, Woking Borough Council launched Planet Woking – a communications programme dedicated to climate change, sustainability and biodiversity. Its purpose is to share what is being done locally and get people involved. There are case studies designed to engage local people and activities to inspire young residents on the site’s Little Planet Woking. They have over 1,000 followers each on Instagram and Facebook and have seen a threefold increase in engagements, demonstrating the reach of digital advertising and social media messaging.



5. Engagement, Finance and Programme Management

5.1 Managing risks and issues

The top 4 programme-level risks and issues that were identified at the formation of the Greener Futures Climate Change Delivery Plan have remained largely the same. The main risks are summarised here alongside their mitigating actions, which are covered in more detail in the next sections.

- (1) Over 95% of the emissions in the target are reliant on residents, businesses and other public sector bodies to reduce emissions. Increasing the reach of the Delivery Plan is being addressed through the formation of the Greener Futures Board and supporting stakeholder engagement.
- (2) Funding and legislative barriers at National Government level continue to hold back progress. Effective lobbying is being developed to argue for greater action and funding at national level.
- (3) The speed and complexity of delivering a wide range of impactful projects continues to be challenging. To mitigate this risk, SCC's own Greener Futures Team and those within partner organisations are managed in a dynamic way, ensuring that capacity is applied where it is needed the most in response to a constantly changing agenda. In addition, greater co-ordination and improved programme management arrangements are being put in place.
- (4) Updated climate science forecasting may predict that climate change is happening faster than originally predicted. The plan will continue to be responsive to changes in evidence^v.

5.2 Governance and programme management

Decisions are managed by a range of stakeholders through boards that have been set up. There is need to further develop and strengthen partnership working, simplify decision-making and build programme management.

Since the Greener Futures Climate Change Delivery Plan was approved in 2021, stronger governance and partnerships have been put in place, including the operation of the Greener Futures Board. The board has focused on connecting the plan with external stakeholders, and on new ways to leverage private sector finance to enable more carbon reduction

projects. Key partners, local authority Members and senior staff have the opportunity to shape programmes at an early stage and co-ordinate activity.

5.3 Engagement, partnerships and lobbying

The plan requires delivering engagement that fosters buy-in and a movement of change. Transformational objectives that inherently involve a big ask from stakeholders are only possible through building high trust and high influence relationships. To foster change-ready communities that are onboard to act on big asks, a Communications and Engagement Strategy is being developed with and District and Borough Councils. The strategy will be based on the following key approaches:

- **Resident Personas** – We are currently commissioning research to better understand Surrey residents and deliver engagement activities that resonate with a diverse range of values, beliefs, and everyday concerns.
- **Strategic Flexibility** - There is no single path to a carbon neutral Surrey. Understanding the local context, challenges and needs will allow us to support residents to work towards our targets in a way that aligns with their values and lifestyles.
- **Relationship Building** - We will increase our impact by building trust and influence with stakeholders through a six-stage relationship building model, which is woven into every point of contact.
- **Change Adoption Networks** – Local change agents and partners are leveraged to help build relationships at scale, utilise their local knowledge and influence, join up efforts, and provide a meaningful channel for delivery, listening and feedback.
- **Building Influence at Scale** – Removing barriers and risks to taking action by changing hearts and minds through a proven influence-based approach founded in social approval to create impactful engagement & communications.

Engagement efforts will focus on key parts of the Greener Futures Climate Change Delivery Plan where engagement is most critical.

They will target fuel poor homes, off gas homes, private landlords, residents for active travel and liveable neighbourhoods, schools, businesses, community groups, local authority staff and National Government. In response to the cost of living crisis, engagement to support fuel poor households has expanded significantly. It now targets a wider range of residents seeking information and support to reduce bills and emissions. A major campaign will be launched this autumn alongside an energy advice tool. Strong plans will continue to form around engagement priorities which will be reviewed every 6 months.

A growing number of partnerships are being formed to increase the reach and effectiveness of the Greener Futures Climate Change Delivery Plan. We already work with a wide range of partners and the Greener Futures Steering Board. In addition, we are working towards forming firmer partnerships with a wider range of groups who share our goal of emissions reduction and a greener future. This is being undertaken through a wider range of collaborative projects, joint branding and the development of a climate change web hub to make it easier for the public to access information on emissions reduction. We are seeking to develop stronger partnerships to help mobilise community action, increase partnerships with business and academia; needed to develop more ambitious projects to tackle climate change.

Engagement includes strong lobbying, where a range of activities are being undertaken to ensure that National Government and other UK bodies are aware of the barriers to Surrey becoming carbon neutral and build support for fundamental change. These have included events such as;

- The COP26 Regional Roadshow, which Surrey County Council successfully bid to host in Farnham with a focus on sustainable travel, which reached 1.2m people.
- The launch of the Greener Futures Climate Change Delivery Plan at the Surrey Hills AONB Climate and Biodiversity Symposium
- Meetings with key influences in Central Government
- Amplifying key messages through wider influencing bodies such as the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) and the UK 100. Our Lobbying Strategy continues to grow and respond to new challenges.

5.4 Maximising benefits

Actions that local authorities take to tackle climate change are undertaken over and above statutory responsibilities. Through the best use of available resources and effective project delivery, it is important that all projects deliver the greatest possible reduction in carbon emissions for the lowest cost. Where possible projects will deliver other council priorities to the benefit of residents.

Pilots are being used to build more robust and effective projects.

18 projects have incorporated approaches that are new to Surrey local authorities. The lessons learned will be used in the business cases of future projects. Examples of pilot projects include collaborations with the

University of Surrey to support targeted engagement with residents on active travel, increase access of fuel poor homes to grant funding and working with Elmbridge Borough Council to trial a low cost way to encourage private landlords to improve the energy efficiency of their properties

Building in more effective monitoring will increasingly enable us to judge the impact of our projects. To date, key projects have delivered significant benefits, but to help measure these we will be ensuring a set of consistent climate change, and wider, metrics form part of our project management approach. The benefits of three flagship projects: Sustainable Warmth, Solar Together and LoCASE are set out below.

	Sustainable warmth	Solar Together	LoCASE	Total
Carbon savings per year	1029		288	1,317 tonnes
Homes and businesses reached	724	1186	70	1,980 homes
Funding leveraged*	£30M	£8M	£1.2M	£39.2M
Annual bill savings for residents	£478k	£1,139k	£25k	£1.6M

* includes grant funding and private sector investment

Consideration of a wide range of benefits. Projects are generating with a wide range of benefits, which have not been measured but include reduced air pollution and health benefits from encouraging active travel, social inclusion benefits from community, volunteering and green social prescribing projects and improved biodiversity and resilience through tree planting.

6. Future Climate Change Action

The scope and ambition of the plan itself is still sound, however, the scale and pace of activity and investment needs to increase substantially. There is a need for further investment from government and other sources to sustain this scale of activity – something that was identified in the original plan itself. But this will require intensifying lobbying efforts in the remainder of the plan period.

To improve efficiency and effectiveness of delivery and increase impact. We will seek to increasing collaboration with Surrey local authorities, and also with the Government, communities, the not for profit sector and businesses. This will be done by sharing expertise and resource, collaborating on communications and engagement, and joining up investment and funding across environment, economy, health and community outcomes where greater impact can be achieved.

Stronger and more focused collective engagement and lobbying. Lobbying priorities will include recognising and supporting the key role local government plays in tackling climate change alongside funding which enables sustained, long-term action. We will also lobby for planning reforms including the prevention of further fossil fuel exploration in Surrey, and lobby against the scrapping of “green taxes” on energy bills. Our engagement activity will ensure that communities and residents are central to, and embedded within, our approach.

We need an increased focus, working with partners, on supporting all residents and businesses to save energy, reduce energy costs and support greater access to affordable, low carbon energy. The cost of living crisis has meant that many more households and businesses are struggling to afford the energy required to heat and power their homes or businesses. We will continue to support residents in fuel poverty as a priority, but look to also increase support to residents and businesses as a whole.

Greater priority to be placed on accelerating local renewable energy generation for example new projects such as rent-a-roof photovoltaic schemes on schools, community buildings and commercial property. These schemes reduce up-front energy costs – a key barrier to the uptake of these measures. The increase in energy prices is resulting in energy efficiency measures and renewable energy generation becoming a more attractive investment, which is an opportunity to further decouple the energy system from fossil fuels. Income generated from commercial rent-a-roof schemes will be used to fund further decarbonisation measures in the county.

Further work is needed to fully align infrastructure and spatial plans and make it possible to design in solutions to lower carbon emissions and mitigate flooding, overheating, biodiversity loss and water use, avoiding expensive retrofit later.

Activity and resource will be more focused on supporting schemes that demonstrate the greatest impacts, including Sustainable Warmth, LoCASE and Solar Together.

Successful pilot projects, will be scaled up to support delivery, including the roll out of EV charging points and private landlord engagement to reduce emissions and bills for tenants.

More resource will be targeted at initiatives and mechanisms to develop a step-change in investment. An updated financial strategy and new funding mechanisms are being developed to lessen the huge funding gap that prevents local authority projects from fully aligning with what needs to happen to meet net-zero targets. This includes new ways to leverage private sector and community investment and projects that generate revenue that can be reinvested in climate projects, starting with our solar PV offer for schools. Temporary resource to create a step-change in climate action will need to be more fully embedded into business-as-usual for all local authority staff members to support the delivery of all actions.

End

ⁱ Surrey's Climate Change Strategy, 2020; [Surrey's climate change strategy \(surreycc.gov.uk\)](https://surreycc.gov.uk)

ⁱⁱ Local Green Jobs- Accelerating a Sustainable Economic Recovery, [Local green jobs - accelerating a sustainable economic recovery | Local Government Association](#)

ⁱⁱⁱ The Costs and Benefits of Tighter Standards for New Builds, Local Government Association, 2019: [Local-green-jobs-accelerating-a-sustainable-economic-recovery_final-1.pdf \(gemserv.com\)https://www.theccc.org.uk/publication/the-costs-and-benefits-of-tighter-standards-for-new-buildings-currie-brown-and-aecom/](#)

^{iv} Surrey County Council's Net Zero 2030 Carbon Programme Assessment, Surrey County Council, 2022: not yet published.

^v IPCC 6th assessment report, 2022; [Climate Change 2022: Impacts, Adaptation and Vulnerability | Climate Change 2022: Impacts, Adaptation and Vulnerability \(ipcc.ch\)](https://www.ipcc.ch)