CLIMATE CHANGE BOARD

MINUTES OF MEETING HELD ON THURSDAY, 17 MARCH 2022, 2PM

Present:-
Cllr Cait Taylor (Chairman)
Cllr Diana Jones
Cllr Deborah Seabrook
Cllr Paul Spooner
Cllr Catherine Young

Ian Doyle, Director of Service Delivery
Dawn Hudd, Strategic Services Director
Marieke van der Reijden, Head of Asset Management (Climate Change Lead)
Chris Wheeler Waste, Head of Operational and Technical Services
Francesca Costelo, Trainee Policy Officer (Economy and Innovation)
Amy Jimenez Bedrock, Policy Officer - Communications
Sophie Butcher, Democratic Services Officer

Action By

10. WELCOME AND INTRODUCTIONS

The Chairman of the Climate Change Board, Councillor Cait Taylor welcomed everyone to the meeting and introduced the guests, Ian Ross from Zero Carbon Guildford, Councillor Steve Williams from Waverley Borough Council and Carolyn McKenzie from Surrey County Council.

11. APOLOGIES FOR ABSENCE

Apologies for absence were received from Professor Graham Miller (UNIS).

12. MINUTES OF THE PREVIOUS MEETING

The minutes of the meeting held on 12 August 2021 were approved as correct.

There were two outstanding actions for the previous Chairman of the Board relating to businesses and communities and air quality. The action for air quality was to confirm an invitation to all councillors for an air quality briefing. This had been completed. There was an outstanding action for the Climate Change Officer to follow up on progress of the behavioural insight programme proposed by UNIS. This had not been completed as the officer had left the council. This was noted.

It was further noted that the costings for replacing the boilers for air source heat pumps at the Lido had not proved realistic. In addition, there was insufficient space on the site for such heat pumps which were larger than the gas boilers. Consequently, the council was proceeding with the installation of gas boilers. However, other energy saving actions were being considered for the Lido such as a cover for the pool. A consultant was engaged on this task.

13. SCC'S GREENER FUTURES PROGRAMME PRESENTATION

Carolyn McKenzie, Director for Environment at Surrey County Council

(SCC) gave a presentation on Surrey's Greener Future strategy which set out the council's Climate Change delivery plan 2021-25.

This was the first action plan produced since a Climate Change emergency was declared by the council in May 2019. The plan was for a five year delivery period that would be reviewed on an ongoing basis. A very detailed implementation plan was to follow shortly.

Ms McKenzie reiterated the need for action and adaptation highlighting global temperature rises and extreme weather events. It was explained that this was the strategy for the county and not the county council with expectation that there would be complementary interaction with more local action plans at a district and borough level and with other non-public sector groups. The strategy did not yet cover local resilience and there was work to be done to support adaptation to change as well as to mitigate greater future change.

The emissions make up graphic for Surrey revealed that the majority of Surrey's emissions came from buildings (51%) and transport (41%). The highest emissions for transport came from personal use vehicles and taxis. The highest emissions from buildings came from owner occupied residential. Local authority emissions were just 1% of the total and it was vital that other sectors, local residents and businesses be engaged to take action so that the strategy and commitment to net zero by 2030 could be achieved.

Given that local authorities' emissions were so low the role for councils was set out as leading by example, enabling and financing projects, influencing behaviour change and collaborating with partners. Strategic areas would need to join up demonstrating strong governance and communications to empower communities and drive behaviour change as well as lobbying at government level.

Feedback from the strategy's consultation which closed in the autumn suggested the council should have a realistic ambition and that a 1.5 degree temperature rise would only be attainable with government support. Joined agendas in that the co-benefits of climate change adaptations be promoted to push behaviour change such as better health, recovery of nature and economy. Positive procurement of goods and services coming from inside and outside of the county. Finally, the limitations of resources and the essential need to collaborate, to share, to partner and to coordinate.

There were seven principles for the delivery plan.

- To put residents and communities at the forefront to drive behaviour change;
- to work with partners wherever possible;
- to continue to lobby the government for policy change;
- to put carbon reduction at the heart of every decision the council made;
- to utilise new and innovative financing;
- to undertake a degree of meaningful offsetting and

- to ensure full engagement to ensure no one was left behind as changes were implemented.

With regard to offsetting, it was noted planting and improvements to green spaces could also have a positive effect on the biodiversity agenda.

With regard to full engagement it was recognised that the equalities agenda was important and that some behaviour change decisions such as installing heat pumps and purchasing an electric vehicle were beyond the reach of many and the council and partners would need to address such challenges together with residents to support behaviour change.

There were four themes to the delivery plan:

- Greener Future Communities (97% emissions)
- One net zero public estate (2% emissions)
- Grow back greener (0.2% emissions)
- Build back greener (regeneration)

Processes for monitoring, financing and reporting back were being put together.

The plan sought to reduce county emissions by 20% (1.2M tons) and SCC emissions by 40% (8,300 tons) by 2025 whilst rolling out climate compatible infrastructure and maximising co-benefits. This included retrofitting 53,000 homes. The estimated cost overall was £4B. The county had already attracted £28M in finance from districts and boroughs. ‘Solar together’ had been launched in partnership with the districts and boroughs and the installations were currently being undertaken. This project had been a great success with 5,000 solar panels currently being installed on residential homes equalling around 2 mega-watt of renewables. It was estimated that at the close of the first round of ‘Solar together’ this would include additional panels amounting to 4 mega-watt of renewables.

The priorities for 2022 ‘Greener Future communities’ included progressing the solar panel roll out target of 6.2M PV panels by achieving an additional 7,000 registrations on top of 1,500 installations already underway. This would include engagement with those residents who were ‘able to pay’. In addition, engagement work would be expanded to engage off gas (oil fuel, park homes etc.) residents to take up new Home Upgrade Grant funding and a new project to engage private sector landlords to meet minimum energy efficiency standards with a low interest or no interest loan scheme. Larger PV installation sites were being sought across the county this year. For ‘One net zero public estate’ although schools fell into Scope 3 emissions, the county would be starting to address those emissions this year. Procurement would also be an area of review to stimulate new products and services and stimulate the green economy. For ‘Build back greener’, the county would be seeking opportunities for consistent planning policies and guidance as planning was a key area of focus for change. For ‘Grow back greener’ the county would continue land management that supported the Climate Change agenda including tree and hedgerow planting, engaging with businesses and communities to maintain trees

and wildlife and by taking a lead on the Local Nature Recovery Strategy.

The behaviour change approach would include research and engagement (e.g. school surveys and barriers to reducing car journeys), develop and deliver pilots (e.g. advanced site specific cycle training for schools), empowering communities (e.g. the Green Futures Design Challenge and Farnham Cycle Campaign) and activating infrastructure (e.g. promote new cycle routes and bike purchase/hire incentives). It was acknowledged that as a large organisation SCC could improve its engagement with local groups and communities and that improvement would be essential to see behaviour change. It would be important to tell local people's stories, young and old alike to inspire others. There would be ten SCC engagement priorities during 2022 which would focus on spending the grants received from government, active travel, lobbying, replacing heating systems and targeting landlords. These would all be partnership projects.

There would be an internal engagement process within the council itself to work with staff on behaviour change. SCC would be happy to share this approach with partners.

The Board was appreciative of the presentation and there was agreement with the need for a strong partnership approach to tackle Climate Change.

Planning and development policies that with respect to certain local differences but that essentially were the same in terms of environment were considered important.

The matter of warming in the south of the country and the effect on biodiversity was raised. It was noted that areas of landscape would need to be connected to provide corridors and in particular a corridor to the north to support species movement.

Supporting communities was discussed and it was noted that other towns were reaching out to Zero Carbon Guildford for advice on setting up other local hubs. In the Horsleys a Climate Change group was proposing to use a section of the library as a zero carbon hub. The use of libraries as community hubs was welcomed.

Ms McKenzie sought endorsement for the plan from key partners to achieve a 'united front' approach to tackling Climate Change. Where there were local differences it was hoped they would be complementary to the strategy, but partnership was fundamental. The Board considered that it would be appropriate for a report seeking formal endorsement for the SCC strategy be put to the Guildford Borough Council Executive for consideration.

Cllr Taylor
Dawn Hudd
Marieke van der Reijden

A copy of the SCC Cabinet report setting out the strategy would be circulated to the Board.

Carrie Anderson

14. INTRODUCTION TO WAVERLEY BOROUGH COUNCIL'S CLIMATE CHANGE BOARD

The Board welcomed Councillor Steve Williams from Waverley Borough Council who was Executive Lead for Environment and Sustainability.

Waverley Borough Council (WBC) had declared a Climate Emergency in September 2019 with the same commitment as Guildford Borough Council (GBC) to reach Net Zero by 2030. It was important to remain on track for that timescale and to seek funding and collaboration to do so. The first draft of the WBC carbon neutrality action plan was produced in March 2020 with the acceptance that it would grow over time in terms scheduling and detail. The current version was produced in December 2020.

WBC had worked with the Association for Public Service Excellence to produce metrics and to understand the sources and levels of emissions to provide a baseline and a trajectory, in the same way as GBC.

The WBC Climate Emergency Board had seven key priorities including organisational emissions, active travel and air quality (including a lead transport officer to liaise with SCC), energy generation, built environment (with an estate of c.5,000 council-owned home), waste and resources, land use and adaption, and finally supporting a green economy (there were climate emergency centres in Farnham and Godalming). The Board had approved its action plan and recommended to full Council. The Board had met twice where there had been a focus on two areas of action. Firstly, procurement which was acknowledged as having particular processes and constraints for local government. A sustainable procurement strategy was being worked on currently to prioritise zero carbon. The other focus had been on the council's estate and consultants had been engaged to work on a trajectory with costings for decarbonising all council-owned homes by 2030. The costs were clearly not going to be within the financial capacity of the council by itself and would require government funding and with the evidence from the consultants there would be lobbying for additional funds. In the meantime, the council was undertaking what steps it could take within budget toward that goal.

Following Cllr Williams' presentation members of the GBC Board noted that it was far more costly to retro-fit housing rather than to build in a sustainable way to begin with. It was queried if the government may be bringing forward some funding to support carbon neutral construction at some stage. The meeting heard that WBC would be considering a motion put to its full Council in April to call upon the government to fund councils who did have a fully costed trajectory to retro-fit it's council-owned homes. The importance of council's in contributing to the government's own carbon deadlines needed to be pressed home. Cllr Williams hoped that other Surrey councils would take the same lobbying position.

The Board agreed that there was a need to communicate with future homeowners to create an understanding of the climate change emergency so they would demand that new homes be carbon neutral.

The Board would support further planning legislation to support carbon neutral building. WBC was working to ensure as much supportive policy

was included in its Local Plan (Part 2). A specific Dunsfold SPD and a Climate Change SPD had been adopted.

WBC and GBC would be working in collaboration to hold a Climate Assembly to pursue greater community engagement. WBC had been in support of a 'Take the Jump' running out of Zero Carbon Guildford which encouraged local people to make positive changes in their lifestyles.

Marieke Van der Reijden
New CCO

WBC Communications team sent out any communications relating to Climate Change as a 'gold standard' referring to the importance of the message.

15. INTRODUCTION OF BEN FROM ZERO CARBON

The Board welcomed Ian Ross from Zero Carbon Guildford.

Zero opened in November 2021 and was led by a board of trustees and run by volunteers. Included on site was a zero waste shop and a café area to socialise; various displays covering biodiversity to solar panels and a teracycle recycling facility.

Zero had a cinema and ran many different events that were well attended. The recent 'Take the Jump' initiative launched at Zero had been featured in the Guardian newspaper.

Many of the members of the Board had visited Zero and were in support of it. The meeting heard that trustees of Zero had been engaged to support a parish initiative in West Horsley at an event to be held on 31 March.

16. TERMS OF REFERENCE FOR THE CCB

The terms of reference item was deferred.

17. DATE OF THE NEXT MEETING

Members would be canvassed for the date of the next meeting.

18. ANY OTHER BUSINESS

There was a discussion about resources available for the Climate Change work and the collaboration with Waverley was welcomed.

A new Climate Change Officer had been appointed with a start date of 16 May 2022.

There would be a new report covering emissions ready for the next meeting.

Marieke van der Reijden

Some members asked for more frequent meetings. The terms of reference would be reviewed at the next meeting noting that any proposed amendments could be put to the Executive in May.

SURREY COUNTY COUNCIL

CABINET

DATE: **26 OCTOBER 2021**

CABINET MEMBER: **MARISA HEATH, CABINET MEMBER FOR ENVIRONMENT**

LEAD OFFICER: **KATIE STEWART, EXECUTIVE DIRECTOR- ENVIRONMENT, TRANSPORT AND INFRASTRUCTURE**

SUBJECT: **SURREY'S GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN (CCDP)**

ORGANISATION PRIORITY AREA: **SUPPORTING COMMITMENT TO THE COUNTY ACHIEVING NET ZERO CARBON EMISSIONS BY 2050**

Purpose of the Report:

This report sets out plans to reduce emissions and tackle the effects of climate change in line with net-zero carbon targets between 2021 and 2025.

Recommendations:

Cabinet are asked to:

1. Approve the Greener Futures Climate Change Delivery Plan for 2021 – 2025 (Delivery Plan)
2. Approve the Council's 2030 Net Zero Carbon Programme (the 2030 Programme), which sets out how the Council's organisational emissions will be reduced, on the basis that any resulting significant new policy will be brought to future Cabinet meetings for approval.
3. Approve the initial Greener Futures Finance Strategy (the Finance Strategy), noting the quantum of investment necessary to meet our 2030 and 2050 carbon reduction targets, that the plan will be reiterated over time and recognising that where appropriate future investment will need to be considered as part of the Council's MTFS.
4. Approve the initial Greener Futures Communications and Engagement Plan (the Engagement Plan), whose priorities will be updated on a six-monthly basis; recognising the critical role of partners in delivering net zero carbon.
5. Delegate authority for approving any further changes to the Delivery Plan to the Executive Director for Environment, Transport and Infrastructure in consultation with the Cabinet Member for Environment, to enable the plan to evolve and adapt to local and national developments.

Reason for Recommendations:

The Delivery Plan and associated annexes document the proposed approach to meeting the targets set out in the Climate Change Strategy agreed by the SCC Cabinet in May 2020. The Delivery Plan is Surrey-wide, not a plan solely for SCC. It must have broad ownership by the public sector, residents, communities and business for successful delivery, and it must continue to remain relevant to existing and new partners to ensure continued ownership. National policy and technology are rapidly changing so the Delivery Plan must also be agile. Therefore, it is recommended that delegated authority be given to the Executive Director for Environment, Transport and Infrastructure in consultation with the Cabinet Member for Environment to evolve the Delivery Plan.

Executive Summary:

1. The **Climate Change Strategy (CCS)** published in May 2020 sets out what needs to be achieved to decarbonise the county by 2050 and Surrey County Council by 2030. The following report and annexes build on the principles and approach agreed by Cabinet in June 2021 which has been developed through further consultation with partners and the wider public.

2. Annex 1 provides a summary of the consultation and engagement undertaken to shape the Delivery Plan. It also sets out the approach and next steps being taken to create stronger communications and build innovative and collaborative engagement that supports wide-spread behaviour change.

3. The **Greener Futures Climate Change Delivery Plan 2021-2025** (Annex 2) identifies four areas of focus and around 70 key initiatives. The four focus areas are:

   - ***Greener Futures Communities**:* To empower individuals, businesses and communities to reduce emissions in their own homes, communities and workplaces
   - ***One Net Zero Public Estate**:* Local Authorities and other public sector organisations to reduce carbon emissions from their own buildings, vehicle and supply chains and meet the challenging targets that have been set.
   - ***Build Back Greener**:* Design with climate in mind to ensure that planning decisions, regeneration projects and major infrastructure are ready for a zero-carbon future and are adapted to deal with the impacts of climate change on people and wildlife.
   - ***Grow Back Greener:*** Managing woodland, green spaces and farmland to maximise the ability to absorb carbon from the atmosphere, grow food sustainably and improve habitats needed for wildlife to thrive.

4. The **Council's 2030 Net Zero Carbon Programme** (Annex 3) sets out the approach to decarbonising the Council's organisational emissions including buildings, streetlights and fleet to achieve a 40% reduction by 2025 a key milestone to achieving the SCC net zero carbon target by 2030.

5. The **Greener Future Finance Strategy 2021-25** (Annex 4) sets the approach to financing the first Delivery Plan and sets in train the development of a long term finance strategy.

Opportunities and Challenges to Delivery

6. Delivery of the Greener Futures net zero target presents a once-in-a-lifetime opportunity for Surrey to show leadership and demonstrate how local government and the public sector as a whole working can work with residents, communities and businesses to effect generational-level change.

7. Decarbonising Surrey creates an opportunity to bring alive the Council's ambition to empower our communities by giving residents the opportunity to take a leading role in improving their homes, communities, schools and businesses, benefitting from improved wellbeing and sharing their own experiences as green champions.

8. Huge levels of necessary investment over the next five to ten years to decarbonise homes, buildings and transport, if delivered alongside Surrey's Infrastructure Plan and the Economy and Growth Strategy, have the potential to deliver multiple benefits. This investment will drive a modern, green and clean industrial revolution within our county, creating new jobs

and supply chain opportunities with a particular focus on our communities which are most impacted by unemployment and poverty.

9. The benefits are not just environmental and economic but also social. Targeted measures and investment to tackle climate change can also reduce health inequalities that currently exist in the county. By prioritising the installation of decarbonisation measures in low-income households we can reduce energy bills at a time when energy costs are steadily increasing, significantly reduce levels of fuel poverty and positively impact cold-related deaths, keeping more vulnerable residents in their homes.

10. Encouraging people to use active travel (walking/ cycling) and public transport, coupled with the shift to electric vehicles, will improve the health of Surrey's residents and reduce air pollution from the county.

11. Investing in trees and habitats has the potential not only to absorb carbon and provide new green space in communities and urban areas where it is limited, but also to build on Surrey's reputation for high quality natural environments, boosting tourism by investing in the creation of new areas of woodland, wetlands and heathland whilst at the same time reducing pressure on well-known beauty spots.

12. However, there are a number of challenges to achieving Surrey's net zero carbon targets. There is a clear gap between pace and scale of change needed to achieve net zero carbon and restrict an increase in temperature to 1.5 degrees in Surrey, and the resources and levers that local authorities have available to make it happen. Successful delivery of the net zero targets can only be achieved with increased and consistent government funding and targeted policy changes at national level; so lobbing Government and other related parties for further action and investment forms an important feature of the Delivery Plan.

13. In order to lobby Government effectively the Council is aligning with organisations such as UK100 and the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) to promote the opportunities that exist for local authorities to take a leading role in carbon reduction, while setting out what is needed from Government to achieve this. To demonstrate our ability to influence significant levels of decarbonisation, the Council has successfully bid to run a COP26 Green Zones event focusing on decarbonising transport in a rural county. The event will take place on 10 November and will be live streamed into the UN COP Climate Change conference in Glasgow.

14. Furthermore, the national definition of net zero, and therefore the basis for the 2030 and 2050 net zero targets, only considers "direct emissions"1, from the use of gas, electricity and transport fuel in buildings and vehicles that we own and operate, and excludes emissions from things manufactured outside of Surrey. Where it can, the Delivery Plan seeks to go beyond this scope to consider all aspects of climate change, including activities that happen outside of the county boundaries that have a carbon impact, such as the carbon footprint of goods and services purchased by Surrey residents and travel by Surrey residents in other parts of the UK and abroad.

Governance and monitoring

15. Strong Governance will be vital. The Greener Futures Board comprised of Leaders representing businesses, residents, public sector and climate experts will oversee progress. Recommendations made by the Board will be taken into account when decisions are made through Surrey's local authorities governance processes. A network of partners

will be fostered to enable them to provide feedback on the progress of action across Surrey and build momentum to support delivery.

16. Progress against Surrey's Climate Change Strategy will be reported on an annual basis which ensures that the Delivery Plan supports the level of change needed to achieve the 2030 and 2050 net-zero carbon targets[ix].

Consultation

17. A two-stage consultation has taken place to shape the Delivery Plan that has drawn 2000 visitors to our digital platform and received well over 400 recommendations. The key findings, alongside an updated review of the evidence have helped to shape the priorities and actions in the Climate Change Delivery Plan and have informed our emerging thinking around future engagement.

18. The first stage of consultation took place between September 2020 and May 2021; mainly through an online survey and in-depth focus groups from a cross section of residents, businesses and landowners. A summary of findings is set out in Annex 1. Following Cabinet agreement of the principles and approach of the Climate Change Delivery Plan, further challenge and steer was received from informed residents through two community-led stakeholder workshops which attracted around 150 participants. Wider public engagement was gained from a greener futures newsletter, meetings, speaking events and presence at wider events such as the Empowering Communities Roadshow and Farnham Sustainability Festival.

19. In addition to setting up a Greener Futures Board, the Council has been working with key public and voluntary sector partners at all organisational levels throughout the consultation period to shape the Delivery Plan and consider how we work more closely together. Borough and District climate change officers have met frequently to share data and build an approach to joint delivery, supported through a workshop with Chief Executives and individual meetings with Borough and District Cabinet leads. Links have been made with the Parish Council Network, schools and education providers, health providers, Police Commission, the Charities Commission and the Surrey Climate Change Commission.

20. The Delivery Plan has been developed with the many service areas within the Council which will need to support delivery, supported by the Council's Leadership Team. A strong steer has also been provided by a CEH Member Reference Group who provided invaluable feedback and insight and whose recommendations are attached to this report in Annex 5. There has also been a Greener Futures Members seminar.

Risk Management and Implications

21. There are a number of risks and issues that would result in Surrey and the Council not achieving the target levels of carbon emission savings set out in the Climate Change Strategy and Delivery Plan [3].

22. The ambitions set out in the Delivery Plan cannot be fully realised without a significant and sustained increase in funding and key policy changes at national level, including introducing planning policies consistent with net-zero targets and policies which make low carbon technologies such as heat pumps cheaper for consumers. Surrey will continue to highlight this through a strong lobbying strategy together with key partners and stakeholders.

23. There is also a risk that target emission reductions may not be fully achieved due to the number, scale and complexity of actions to be delivered by 2025. Many actions are reliant on residents, businesses and others making low carbon choices. These risks are being addressed in part by increasing the resource we have to enable effective behaviour change

as set out in Annex 1, scrutiny from the Greener Futures Reference Group, and regular monitoring of the Delivery Plan via the Greener Futures Board. In addition, we will continue to lobby the Government to make the national policy changes that are necessary to ensure residents are able to make sustainable choices.

24. Climate science already suggests that we need to make cuts in the order of over 40% by the end of the Delivery Plan period to avoid an average global temperature rise of 1.5 degrees [2] and that global warming is happening at a faster rate than originally thought [3]. There is a further risk that new scientific evidence suggests even greater urgency is required.

Initial Greener Futures 2021-25 Finance Strategy - Financial and Value for Money Implications:

25. An Initial Greener Futures Finance Strategy (Annex 4) has been developed to provide an initial approximate cost, based on best evidence, current knowledge, data and modelling for the proposed net zero pathways for Surrey's 2050 Climate Change Delivery Plan 2021-25 and SCC's 2030 target. Costs are based on a draft 'net zero pathway model' developed for SCC by Atkins which includes relevant data, possible carbon reduction measures, cost and savings assumptions as well as potential funding and finance. Work will be ongoing to refine and evolve the model as base data is validated and refined, new opportunities arise and technology develops.

26. Revenue costs and common costs across the programmes (such as communications costs) have not yet been estimated. The focus to date has been on capital costs, as this will represent the majority of the investment required (although revenue costs are expected to be substantial). Firming up related revenue costs will be a key next step in this work. Work has already started on this now that the draft Delivery Plan has been developed and it's clear what the priority initiatives are. These resource requirements are currently being built into internal budget setting processes.

27. Atkins initial capital estimates for the 2030 net zero target are in the order of £65 - 71M for the full programme of measures required. This investment will be phased over eight years between 2022 and 2030. Atkins also estimate that the overall programme of measures will pay back through operational energy savings and revenue from the sale of electricity from ground mounded solar arrays on SCC land over the 28 years to 2050. After that point, Atkins have indicated that the Council will receive an income from the programme of measures. Officers are working with Atkins to validate these estimates, refine the finance model and agree what parameters need to be put in place for this to be achieved and monitored.

28. Atkins has estimated capital cost of the Climate Change Delivery Plan up to 2025 is £3.4 to £4.2B. This is currently being validated by officers. The majority of these costs will fall to the consumer (i.e. homeowners, businesses, vehicle owners etc), and many should generate savings for those same consumers over the short, medium or long term. The overriding assumption will be that in the main, though SCC may facilitate finance mechanisms, SCC will not be paying for these measures.

29. The model includes an overview of funding sources and finance mechanisms available to finance the delivery of the chosen pathway and more importantly any funding gaps that there may be. This work will be developed to form the basis of an evidence based 'ask' of Government with regards to future funding and finance where there are gaps.

30. The model demonstrates the importance of external funding such as grants and private sector investment. Where gaps are identified which could be unlocked by the Council's investment, in most cases it has been assumed that the Council's contribution will need to be paid back. Officers are exploring using capital borrowing to establish low or interest free loan schemes to target groups such as schools, SME businesses and private sector landlords and exploring mechanisms to cover the cost of borrowing.

31. The next phase of the development of the model will be linked to the Surrey Infrastructure Plan that can deliver at pace and at scale, combining all possible sources of funding including that which may be attracted from the Government's Infrastructure Investment Bank and the private sector.

Section 151 Officer Commentary:

32. Although significant progress has been made over the last twelve months to improve the Council's financial position, the medium term financial outlook beyond 2021/22 remains uncertain. The public health crisis has resulted in increased costs which may not be fully funded. With uncertainty about the ongoing impact of this and no clarity on the extent to which both central and local funding sources might be affected in the medium term, our working assumption is that financial resources will continue to be constrained, as they have been for the majority of the past decade. This places an onus on the Council to continue to consider issues of financial sustainability as a priority in order to ensure stable provision of services in the medium term.

33. The plans, costs and funding models set out in this paper and annexes are at an early stage, and are subject to further development and refinement by the council and its advisors. Individual projects will be subject to full business cases, with an analysis of value for money and funding options, including the extent to which investment can be funded externally, e.g. through government grants. Many of the measures which contribute to the 2030 target will result in reduced energy costs and/or income to the council, and the extent to which those efficiencies can offset the cost of investment is being explored. Projects will be considered, within the Council's approved budgets, through existing governance processes including the Capital Programme Panel and further Cabinet approvals where required.

Legal Implications – Monitoring Officer:

34. Delivering against the county's and SCC's own net zero carbon target is one of the Council's top four organisational priorities There is currently no legal obligation for the Council to deliver against its, or the UK Government's net zero carbon target, however, it is expected that the Government's own Net Zero Strategy, expected to be published in coming months, may include incentives or requirements for local authorities to deliver on these targets.

35. In addition, the measures identified in the Delivery Plan will have their own legal implications, which will be considered and reported as part of the appropriate decisions taken in respect of these projects.

36. The Cabinet's Greener Future financial strategy and any annual spending proposals will be subject to agreement of the annual revenue and capital budgets by full Council at its budget meeting each year.

Equalities and Diversity:

37. A key principle set out in the Climate Change Delivery Plan is that no one should be left behind, focusing financial support towards those least able to pay, or most at risk of suffering the impacts of climate change.

38. The wide-ranging impacts of the initiatives proposed makes it impossible to produce a meaningful equalities impact assessment for the whole Delivery Plan. As such, equalities impact assessments (EIAs) will be undertaken as early as possible in the development of the initiatives identified in the Delivery Plan to ensure that these impacts are understood and that no one is left behind in the delivery of this critical agenda.

What Happens Next:

39. Should Cabinet approve the recommendations in this report, the following are the next steps:

- The Climate Change Delivery Plan will be launched at the University of Surrey Business Symposium on 24 November.
- The Green Zones COP26 event on 10 November will be a key opportunity to highlight Surrey's climate change ambition and push for faster change.
- The Initial Greener Futures Finance Strategy and the communications and engagement plan will be further evolved as the Government's Net Zero Strategy emerges
- Where required, the new initiatives in the delivery plans for 2030 and 2050 will be developed into individual detailed business cases and taken through the appropriate decision making processes.

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Annexes:
Annex 1- Engagement Report

Annex 2- Climate Change Delivery Plan 2021-2025

Annex 2a- Climate Change Delivery Plan executive summary document

Annex 3- SCC Corporate net-zero 2030 Programme

Annex 4- Climate Change Finance Strategy

Annex 5- Greener Futures Member Reference Group Recommendations

Sources/background papers:

1. Surrey's Climate Change Strategy, Surrey County Council, May 2020; https://www.surreycc.gov.uk/__data/assets/pdf_file/0003/225615/Surreys-Climate-Change-Strategy-2020.pdf
2. Global Warming of 1.5°C, Intergovernmental Panel on Climate Change, October 2018; https://www.ipcc.ch/sr15/
3. Sixth Assessment Report, Intergovernmental Panel on Climate Change, August 2021; https://www.ipcc.ch/assessment-report/ar6/

4. Net Zero – The UK's contribution to stopping global warming, Climate Change Committee, May 2019, https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/
5. Local Authorities and the Sixth Carob Budget, Climate Chante Committee, December 2020, https://www.theccc.org.uk/publication/local-authorities-and-the-sixth-carbon-budget/

ANNEX 1- GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN

STAKEHOLDER ENGAGEMENT, COMMUNICATIONS AND BEHAVIOUR CHANGE

Summary

This report sets out:

- The conclusions of the climate change stakeholder engagement undertaken, which broadly supported the priorities in the Delivery Plan, and has helped to shape the Delivery Plan – for instance, by broadening the scope of the plan to go beyond "direct emissions".
- A summary of the communications planned, prioritising key events such as COP26 and targeted campaigns which help accelerate behaviour change in energy and transport, and developing the Greener Futures website to become a trusted source of information for residents and businesses.
- The proposed approach to engagement and behaviour change moving forward which will take place at a project level and target a wide variety of community groups and businesses.

Next steps

- Continue to lobby for policy changes and further investment through at regional, national and international settings.
- Develop a greater understanding of communities and businesses in Surrey to form a network of partnerships which can accelerate climate reduction in communities. Seek to support community activities that will result in greater action to tackle climate change.
- Build the capability within Surrey to undertake high quality engagement that results in on-the-ground change, by applying the learning from behaviour change studies, successful case studies within Surrey County Council, the district and borough councils, other partners and community groups, and beyond.
- Deliver the climate change communications strategy in this report, including a re-vamp of the website, commonplace, branding, increased social-media activity on climate change showcasing leadership and highlighting opportunities for residents and businesses to contribute.

Progress to date: Stakeholder Consultation and Engagement

Between September 2020 and October 2021, the Greener Futures Team and Cabinet Member for the Environment engaged with a range of stakeholders and partners to refine and develop the delivery plan included in this report. The below is an overview of the engagement undertaken and the feedback and insight that this exercise produced, which has been taken into account in the final delivery plan presented to Cabinet.

Residents, businesses and community groups

A combination of on-line engagement through commonplace, community-led citizens assemblies and speaking events led to the collection of feedback from residents and community groups, generating over 2,000 visitors to the commonplace website and over 400 contributions to consider. Additional focus groups were arranged to capture the wider views of young people, vulnerable groups, landowners, tenants and small businesses[i]. In general, engagement with feedback from business was lower than other groups.

The Climate Change Delivery Plan was generally well-received with broad agreement that the correct priorities are being addressed, but there was some feedback from certain stakeholders that the Plan should have a stronger emphasis on waste. Transport, housing and waste were considered to be the most important areas of focus with strong support for addressing the green skills gap (i.e. the lack of sufficient skills across the workforce to deliver green technology and services), and holding big business to account. Financial obstacles, and key supporting infrastructure came across as the key delivery barriers. There was a perceived lack of clear or trusted information about what residents can do to tackle climate change, which undermined the confidence of residents to make sustainable choices and understand the contribution it has to preventing climate change. There was also low awareness of existing actions being taken or opportunities for communities to invest or participate in climate activities. Residents want to play a part in delivering the plan, and want to feel supported to make the required changes, resulting in tangible benefits to residents and their local communities.

As a result of the feedback, the scope of the Delivery Plan was expanded beyond transport and buildings which are the principle means of meeting the net-zero carbon targets. Specific consideration has been given to developing a low carbon economy, climate resilience, and maximising the wider benefits that arise from carbon reduction projects such as leading healthier lives, reduced fuel bills and greater protection for wildlife. In recognition that residents, businesses and community groups are essential to tackle climate change, a greater focus on the provision of trusted information and empowering behaviour change within communities have been included as actions within the plan and explained in more detail in the following sections of this document.

Public sector partners, case studies and evidence review

Further analysis and feedback from partners helped to ensure that the Delivery Plan was in line with the latest evidence and considered whether there were advances in policy, technology and delivery routes. New policy, and climate change evidence confirmed that the key areas and technology focus of the Delivery Plan were still pertinent. The case study review did highlight that further work needs to be done to consider whether the Delivery Plan includes enough on trialling innovative delivery in Surrey, which may lead to future commercial opportunities and more rapid carbon emission reduction.

Increased engagement with public sector partners has taken place over the past few months to consider the content of the Delivery Plan and how we all work together moving forward. Many public sector partners (Local Authorities, NHS and Police) share a common ambition to rapidly decarbonise within their own organisations and use their position to influence carbon reduction more widely. They also face similar challenges to undertake complex building works and replace diesel vehicles whilst maintaining service

delivery, acquiring appropriate expertise to put in place carbon management plans and policies, and finding the funding to resource expensive decarbonisation programmes.

Local Authorities will use existing networks to share data and collaborate on funding bids, communications, projects and policies to ensure that delivery is as effective, cost efficient and aligned as possible.

Communications Strategy

Overview

Effective communication and engagement with residents are essential to us achieving the aims of Surrey's Climate Change Strategy. Many of the changes required to achieve carbon net zero are outside of the Council's direct control. Therefore, to achieve the targets, changes must be made through effective working with partners and stakeholders, and influencing behaviour change with residents. Communication plays an important role in both of these, as well as showcasing Surrey County Council as a leader in the area of climate change.

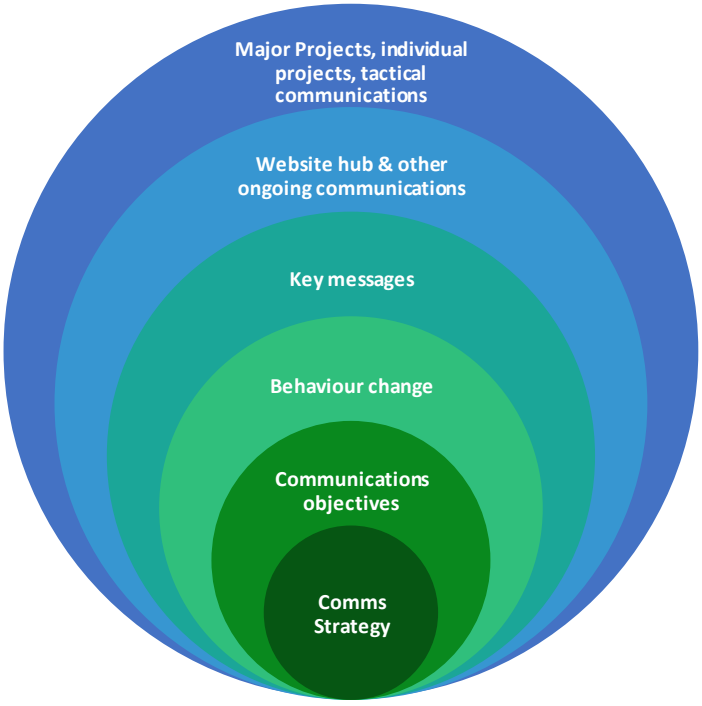
Our communications for climate change will be:

- Consistent, with repeated key messages to reinforce the story and the need for change
- Targeted, to ensure the right messages reach the right audience, according to attitude, place or behaviour and,
- Clear, to be a trusted voice on climate change and provide useful information in plain English.

Framework

The communications framework, below, shows how the full range of communications work together – with the strategy, objectives and consistent core messages at the heart of everything we do (see Diagram 1)

Diagram 1: Communication Framework



Communications Objectives

The objectives of this strategy are:

- To raise awareness of Surrey's Climate Change strategy and what SCC and partners are doing in this agenda;
- To educate residents on climate change and what it means in Surrey;
- To build a sense of urgency around climate change and establish the need for change;
- To be a trusted voice on climate change; and
- To encourage behaviour change amongst residents and businesses; and
- To direct residents and businesses to helpful information on what changes they can make and how.

Audiences

To be successful, the communications around climate change needs to be targeted and tailored to specific audiences. Our communications will be tailored to various demographics, attitudes and existing behaviours, as this can affect the messages, channels and tactics used.

Demographic segmentation of audience groups may be based on geographic location (i.e. for campaigns such as the Mole Valley Connect bus) or on other criteria such as home ownership (i.e. for campaigns like Solar Together). The demographics we would target would include:

- Environmentalists
- Homeowners
- Young people
- Landlords/ tenants
- Business owners
- Vulnerable or older people
- Schools
- Communities
- Other individuals more vulnerable to the impacts of climate change

The communications need to take people on the journey of understanding the need for change, knowing how to make the change, being motivated to make the change and believing they can change.

Key messages

These are the initial key messages for the first stage of the delivery plan, but they will need to be reviewed as we progress:

- Surrey is committed to being a net zero carbon county by 2050
- Climate change is affecting all of us and we all need to take responsibility to tackle it
- We can all make changes in our lives to reduce our carbon footprint
- Surrey's climate change strategy and delivery plan provide clear goals and a coherent road map for achieving our targets
- Only by working together, can we achieve our goals and tackle climate change county-wide

Branding and visual identity

To reinforce the key messages, a strong and consistent visual identity will be applied to all projects related to Greener Futures. This will help ensure that residents understand what we're doing to tackle climate change in Surrey.

Communication tactics and channels

We will need to use the full range of communication channels and tactics to achieve the broad aims of the climate change strategy. This will include everything from press releases and media relations, social media including carefully targeted ads, film media, leaflets and letters, outdoor media such as billboards and bus backs, in-person events, podcasts, websites and digital newsletters such as Surrey Matters.

The communications need to take people on the journey of understanding the need for change, knowing how to make the change, being motivated to make the change and believing they can change. All campaigns will likely use multiple channels to target the correct audience groups, particularly as research suggests that people often need to see a message at least seven times for it to be understood. Consistent and repeated messaging is key. Some of the tactics we may use include:

- Being the trusted voice – blog, vlogs and webinars

Taking inspiration from the focus group feedback, communications need to position us as a trusted voice of authority, cutting through the greenwashing and myths. As a county council, we are well-placed to create

this position for ourselves. Residents have said they need help with understanding the changes they need to make and how to do this, so we can provide practical guidance and information in numerous formats such as blogs, vlogs, and webinars using both resident experts and industry experts to provide the content and these can be promoted across social media.

- Supporting communities

Building on the success of the Greener Futures Design Challenge, we need to work with communities to listen to their feedback and ideas, and enable them to make their own changes through initiatives such as Your Fund Surrey.

- Creating the need for change

The focus groups showed the need to educate residents on climate change happening in Surrey and why we all need to change. Highlighting the recent extremes of weather in Surrey through impactful videos, supported by social media, outdoor and radio ads, would make climate change seem more 'real' to residents and get them to start thinking about what they can do. A call to action can direct residents to a website where they can find helpful information on what they can start doing about it.

- Communicating goals and targets

To help ensure residents understand the goal and our progress against this, we need to communicate clearly about what our targets are and importantly, how we are progressing against those targets – as a council and as a county. Therefore, visual tracker is being created. Since carbon accounting is a complex area it would need to be simple to understand, avoiding jargon and complex numbers.

9

- Engaging enthusiasts

Building on the work we have already done through community engagement and our existing resident updates, we will harness the power of residents who are already engaged and leading the way in making lifestyle changes. The newsletter aims to keep people updated on what SCC is doing, what initiatives there are for people to get involved in and where they can give feedback.

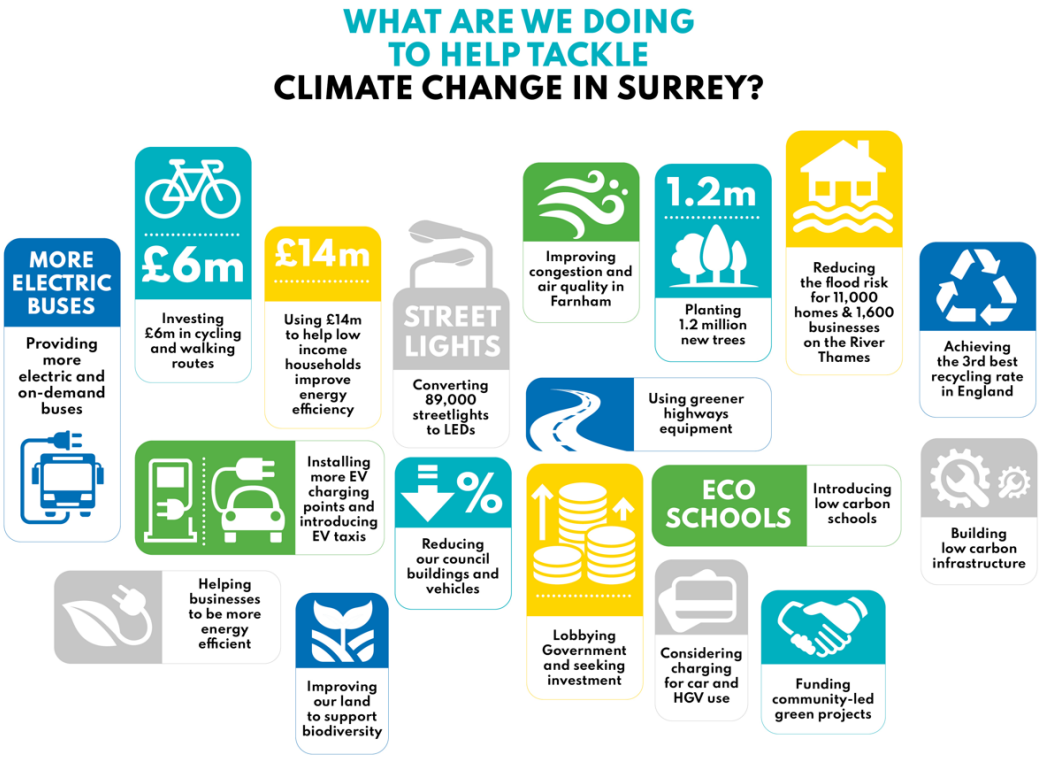
Initial Priorities

Once the Climate Change Delivery Plan has been approved by Cabinet, the initial focus for communications will be in three main areas:

1) Building awareness and understanding of the delivery plan and its aims
   - Through creation of a new Greener Futures website hub
   - Through a video to be premiered at the Surrey Hills Symposium
   - Through the launch of a resident's blog
   - Supported by our dedicated climate change newsletter, as well as a press release and social media
2) Supporting behaviour change in transport methods (as transport accounts for 46% of emissions within Surrey) through
   - The COP Green Zones regional event focusing on transport in Surrey
   - Launching the Betterpoints app
   - Implementing a campaign to encourage Active Travel in early 2022
3) Communicating opportunities and initiatives for residents to improve their homes, as this is the second biggest area of emissions within Surrey, including:
   - Supporting the Home Upgrade Grant for homeowners to switch to low-carbon heating solutions
   - Supporting phase two of the GHLAD programme

Example Infographics

Infographics are being developed to help residents more easily engage with information they need to understand the implications of climate change and what they can do about it. Here are two examples which align with the branding identity of the Climate Change Delivery Plan to be used on the web site and other promotional material



Timeline of communications activity – September to December 2021

This shows a high level summary of the communications activity underway and planned in the short term to promote Surrey's Climate Change agenda.

Date	Activity/ event	Communications channels
9/09	World Electric Vehicle day	Press release and BBC Surrey interview with Cllr Matt Furniss
11/09	Surrey Hills Wood Fair	Presence at event giving away trees
13/09	Weekly 'what we've done so far' post	Social media posts across main platforms
18-26/09	Great Big Green Week	Promoted in our resident newsletter
20/09	Weekly 'what we've done so far' post	Social media posts across main platforms
21/09	Zero Emissions Day	Press release and social media to support
22/09	World Clean Air Day	Press release and social media to support
27/09	Weekly 'what we've done so far' post	Social media posts across main platforms
30/09	Launch of LoCASE – grant funding for SMEs	Online live event featuring video content and portfolio holder Cllr Marisa Heath presenting, supported with press and social media
01/10	Article on climate change	Surrey Matters
01/10	Launch of resident blog	Publish first blog on commonplace, written by a resident. Support and promote through social media
04/10	Weekly 'what we've done so far' post	Social media posts across main platforms
11/10	Resident blog post	Publish blog post by resident, promoted across social media
18/10	EV taxi trial launch	Press release and social media to support
18/10	Resident blog post	Publish blog post by resident, promoted across social media
20/10	Launch of new Greener Futures website hub	Share across social media platforms
25/10	Resident blog post	Publish blog post by resident, promoted across social media
26/10	Delivery plan goes to cabinet	Support with press release, local and trade media interviews, social media, explainer infographics and updated web content
27/10	Launch infographics	On website and on social media to explain the delivery plan to residents
31/10	Climate change newsletter	Publish climate change newsletter to subscribed residents to update on recent progress, incl delivery plan
1/11	Feature in Surrey Matters	Feature about delivery plan in Surrey Matters
1/11	Resident blog post	Publish blog post by resident, promoted across social media
1-12/11	COP26	Press and social media to highlight what SCC is doing to tackle climate change, as well as media interview and opinion pieces
8/11	Resident blog post	Publish blog post by resident, promoted across social media
10/11	COP26 Green Zone event	Day long event in Surrey with 30-50 people showing the future of transportation in Surrey

15/11	Resident blog post	Publish blog post by resident, promoted across social media
16/11	Surrey Hills Symposium	Event with Surrey Hills to launch Delivery Plan, including video explaining our plans and the impact of climate change in Surrey.
16/11	Launch video	Create impactful video explaining climate change in Surrey and what we're doing about it.
22/11	Resident blog post	Publish blog post by resident, promoted across social media

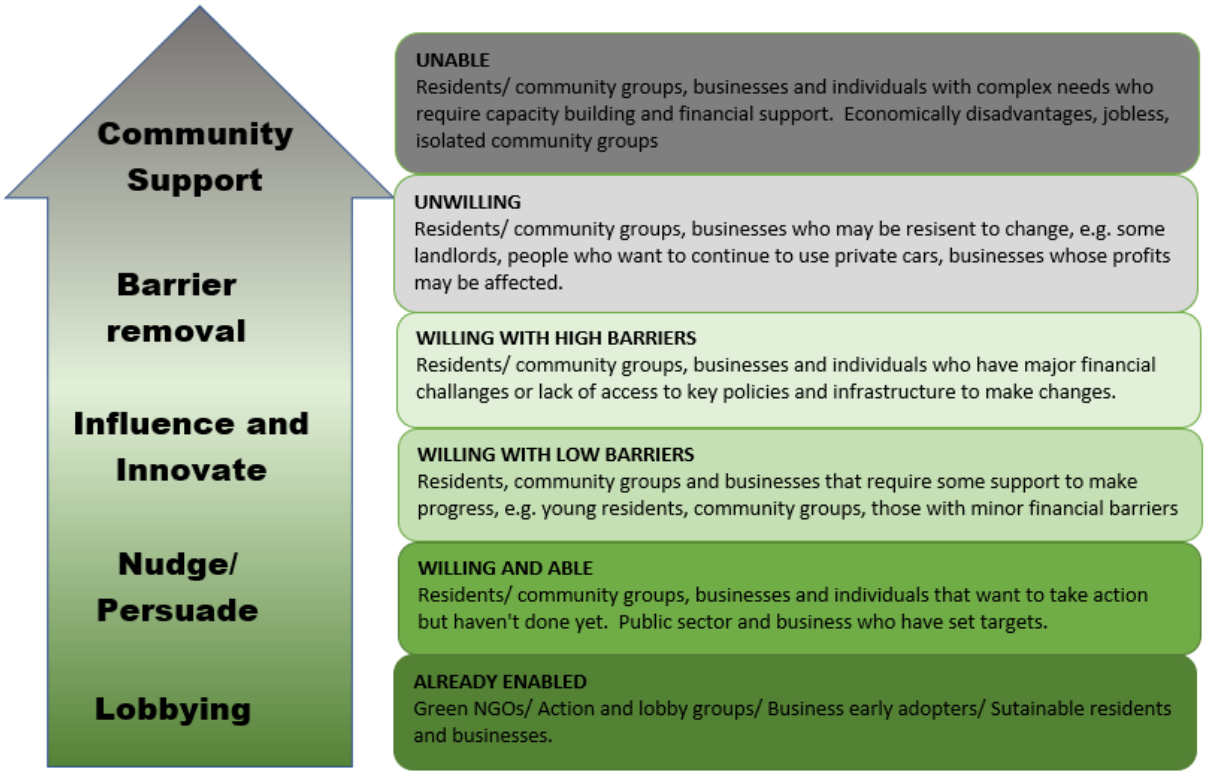
Approach to engagement and behaviour change moving forward

Given that emissions attributable to residents and businesses makes up around 91% of the county's net-zero target, the consultation undertaken for the Delivery Plan identified a significant opportunity to support and empower communities to make changes to their homes, commercial centres, neighbourhoods. This section sets out the approach that we will take to understand effective engagement in a range of scenarios that will help to build a sustained change that results in low carbon being the default or "normal" choice .

Understanding the need

Engagement and behaviour change programmes will be informed by the individual circumstances of those who need to make changes to reduce carbon emissions. Diagram 2 below reflects the range of stakeholder attitudes to taking action on climate change and the corresponding nature of engagement that is likely to be most effective.

Diagram 2: Attitudes Framework



Taking the right approach

Using the above model, the following sets out how we plan to engage each of these groups:

Provide a platform for those who are already enabled: A key part of the lobbying strategy is to provide a platform for people who have already made changes in their lives to reduce emissions to lobby for faster change. This will result in Surrey having stronger voice on a regional stage and to influence national government and key events such as COP26. We are seeking to partner more closely with those who are active within their community in reducing emissions. Partnering and highlighting examples of leadership and good practice within communities and business can increase the spread of information and key messages developed in Local Authority communications and can result in greater levels of trust within communities. To put this in place, we are seeking to develop a greener futures network, set up a

community champions network and reform the voluntary sector to enable more support for sustainability activities.

Increase influence by working more closely with partners: Showing leadership and sharing expertise with public sector partners, social housing providers, service supply chain, major business and academia can be helpful to solve common problems and highlight progress. We are seeking to build on collaborations already underway and make new connections to provide greater influence across the county through the Greener Futures board, developing work programmes with key partners.

Nudge those who can, to do: Many people want to become more sustainable and are able to do so, but have not made changes yet. For those well positioned to act, the Local Authority communications strategy, will have the greatest impact by signposting trusted information, highlighting the benefits of low carbon action, events, activities and funding opportunities, and creating a sense of urgency and empowerment.

Project specific communications: Reducing emissions requires changes in many areas, for example changing diets, reducing waste, more active travel, reducing energy consumption. In many cases, communications and engagement on a specific topic or targeted to a specific audience will be more effective. As part of the communications strategy, a wide range of communications, information campaigns, and trusted advice are in train or being developed to align with the priorities of the Climate Change Delivery Plan. Some examples include: engagement to enhance the flood defence programme, support the ambitions set out in Surrey Local Transport Plan and the eco schools project.

Engagement that target specific financial and other barriers: In some cases, Local Authorities or other organisations will have a specific offering to tackle barriers which help people to take the next step. Some current examples include the development of a transport app, community energy pathway, LoCase, Your Fund Surrey and development of a green skills academy. Communications to raise awareness and support to access these opportunities will extend their reach and improve outcomes.

Innovative behaviour change models: Surrey County Council is looking to build its capability of undertaking high quality behaviour change projects by trialling a range of innovative approaches. Two key areas are currently being prioritised; firstly in transport through the development of a transport app which allows more connectivity between modes of public transport, and to support active travel schemes such as 20 minute neighbourhoods. The second is in partnership with Surrey University's "Living Lab" to consider approaches to increase the uptake of low carbon measures in households.

Creating further reach: Many people who could make changes to reduce emissions have other priorities and will not be active in community groups or read climate communications sent out by Local Authorities. To create further reach we will be seeking to build a much wider network of community and business contacts that go beyond those already engaged in climate change activities. This will be achieved by building targeted climate change engagement into the Community Network approach that is already being developed as part of our work in Empowering Communities.

Targeted support for those most in need: Those who are socially or economically disadvantaged may require a greater level of support and address a range of complex needs to make a step-change towards sustainability. The initial focus of this work is distributing funding to put low carbon measures in households and at the same time lower energy bills for those at risk of fuel poverty.

[i] Climate Change Delivery Plan – Research and Engagement Summary Report – available on request

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Surrey's Greener Future

SURREY COUNTY COUNCIL

GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN

2021-2025

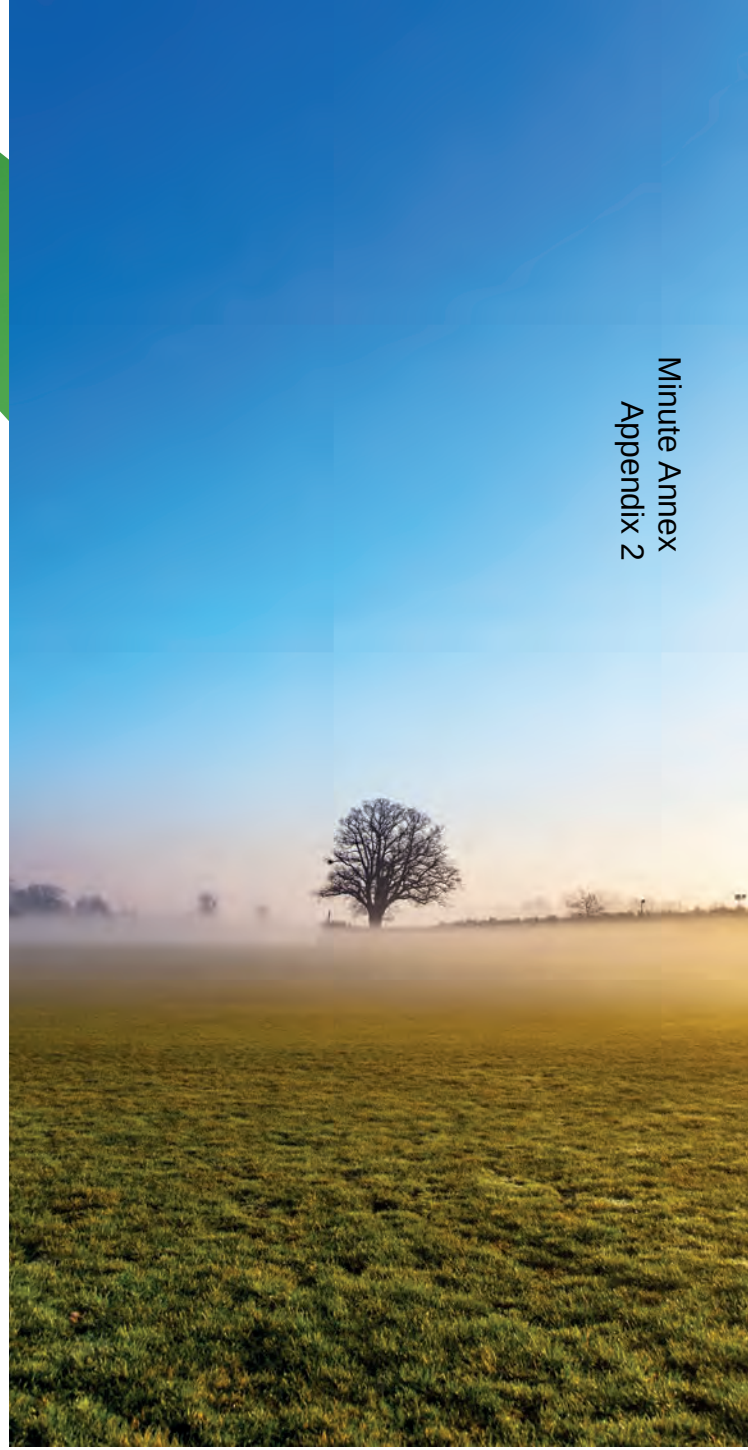
WHY SURREY NEEDS A GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN

To recognise the urgency of the problem:

The evidence that climate change is real is beyond doubt and its effects are already being felt across the world[i]. An increase in man-made greenhouse gases will impact on the health, wellbeing and finances of Surrey's residents, businesses, landscapes and biodiversity for many years to come. Along with action being taken across the globe, we intend for Surrey to play its part by reducing its dependency on fossil fuels.

To create the step-change needed to meet our net-zero targets:

In 2020, Surrey's Climate Change Strategy[ii] was published in response to Surrey County Council and other Local Authorities declaring a climate emergency, which set a target for Surrey to become net zero by 2050. This Delivery Plan sets out what needs to happen over the next five years; the first step in a 30-year-long delivery phase.



To get everyone involved:

No one in isolation can solve climate change, so the plan shows how public sector, business, residents and communities can work together to bring about faster change. It identifies actions which Local Authorities and Surrey County Council will take to support those who live, work and visit Surrey to reduce carbon emissions and adapt to the impacts of climate change.

SUMMARY OF THE IMPACT BY 2050 IF WE DO NOTHING[1]

An increased likelihood of heatwaves

With temperatures of up to

37.1°C

Hotter Drier Summers

With average daily temperatures **rising** by up to

2.2°C

Warmer Winters

With average daily temperatures **rising** by up to

1.5°C

Droughts becoming more common; as Summer rainfall **falls** by

20%

A higher risk of flooding; with Winter rainfall **increasing** by

10%

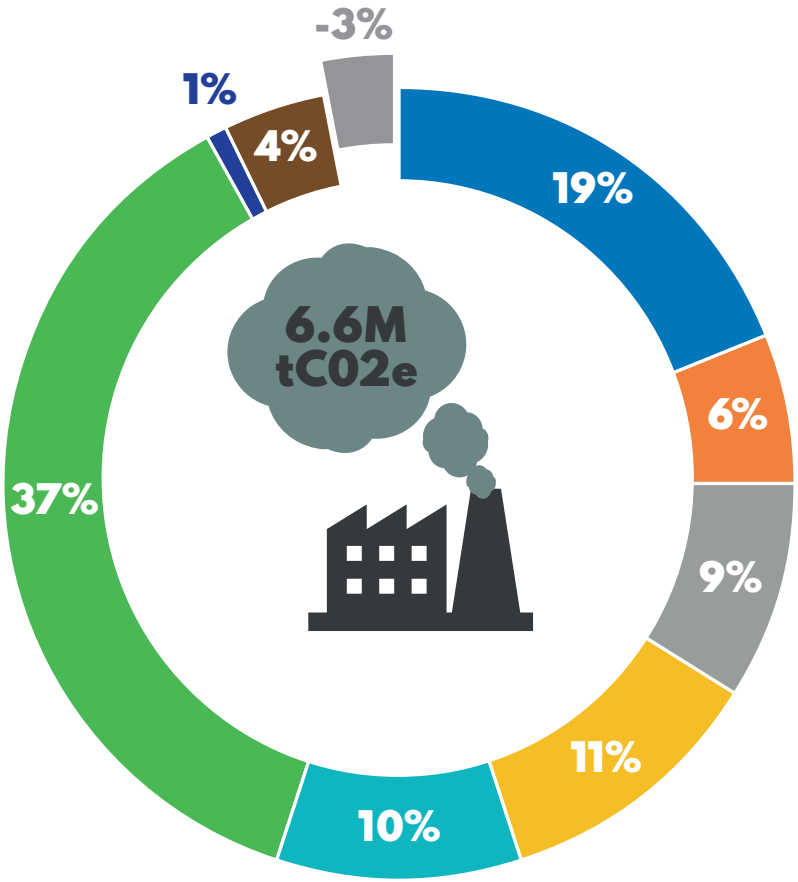
[1] Based on the UK Climate Projections 2018 future greenhouse gas scenario 4.5 which represents a a rise in global temperature of 2.4°C by 2081-2100. **https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index**.

WHAT SURREY NEEDS TO DO TO TACKLE CLIMATE CHANGE

Understand sources of carbon emissions:

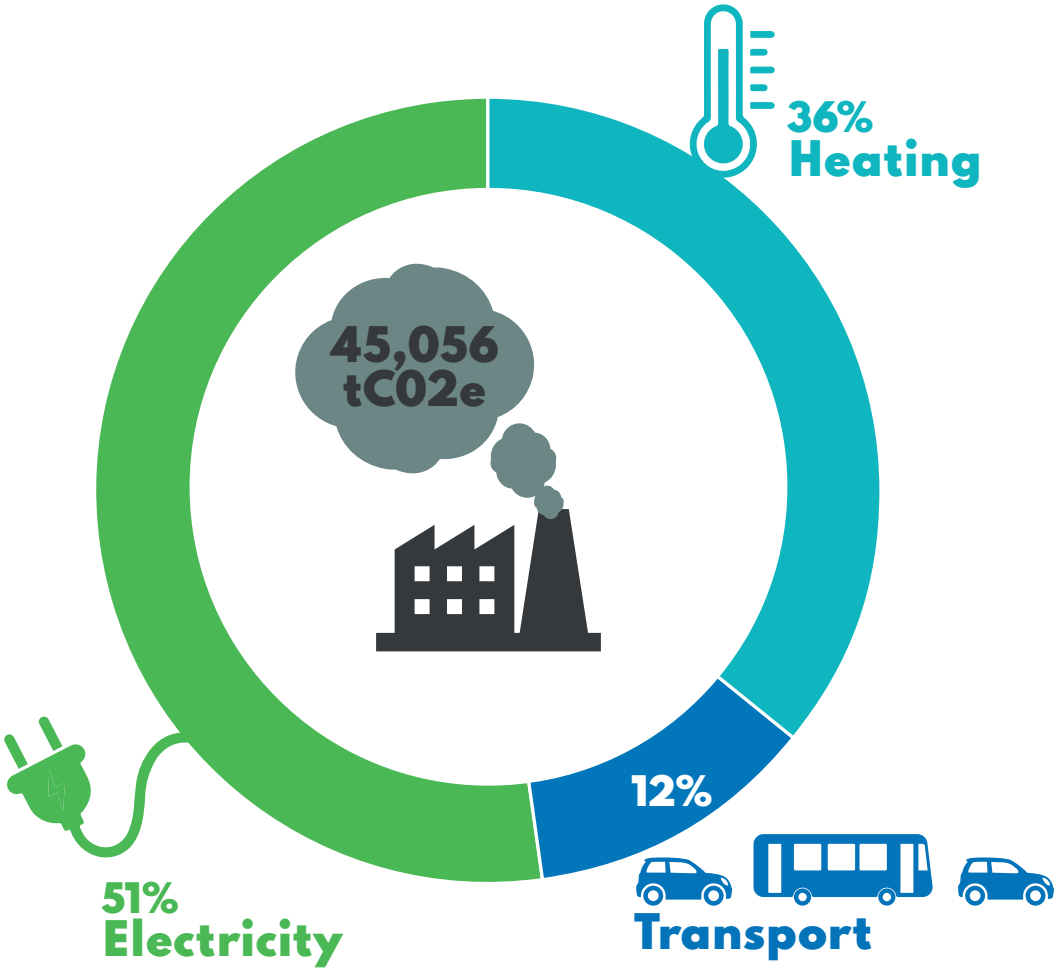
In 2018 emissions attributable to county's 2050 net zero target totalled 6.6M tCO2e. Transport and buildings make up 94% of carbon emissions produced from petrol and diesel vehicles, gas heating and electricity consumption in the county. Emissions relating to the consumption of goods and services by Surrey residents and businesses are estimated to be between 14-17MtCO2e; 2-3 times greater than those measured as part of the net zero targets[iii].

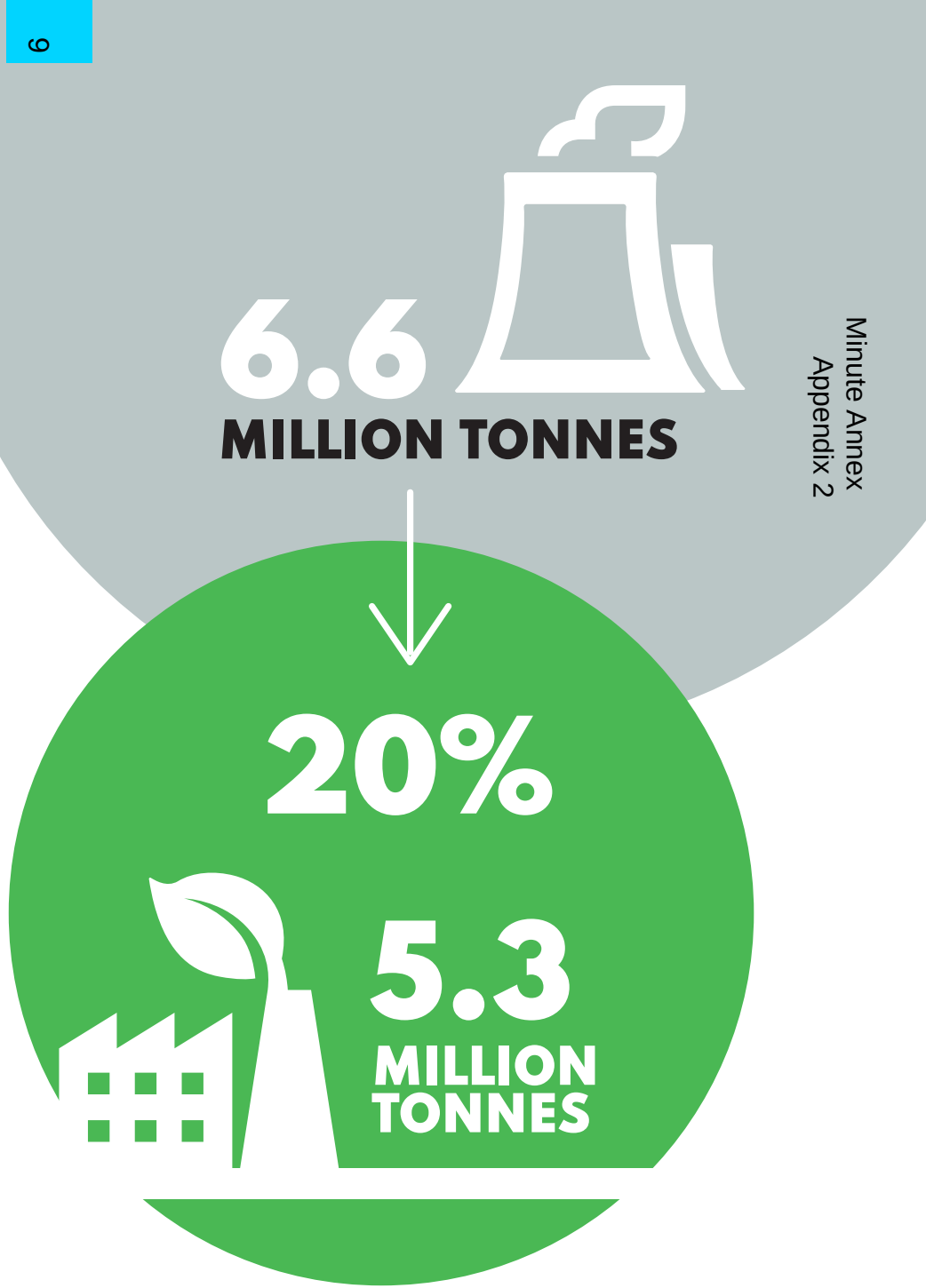
SURREY CARBON EMISSIONS IN 2018



- Residential gas
- Non-residential gas
- Residential electricity
- Non-residential electricity
- Other energy and industrial emissions
- Road transport
- Other transport
- Waste and agriculture
- Land use

EMISSIONS FROM ALL SURREY AUTHORITIES IN 2019/2020

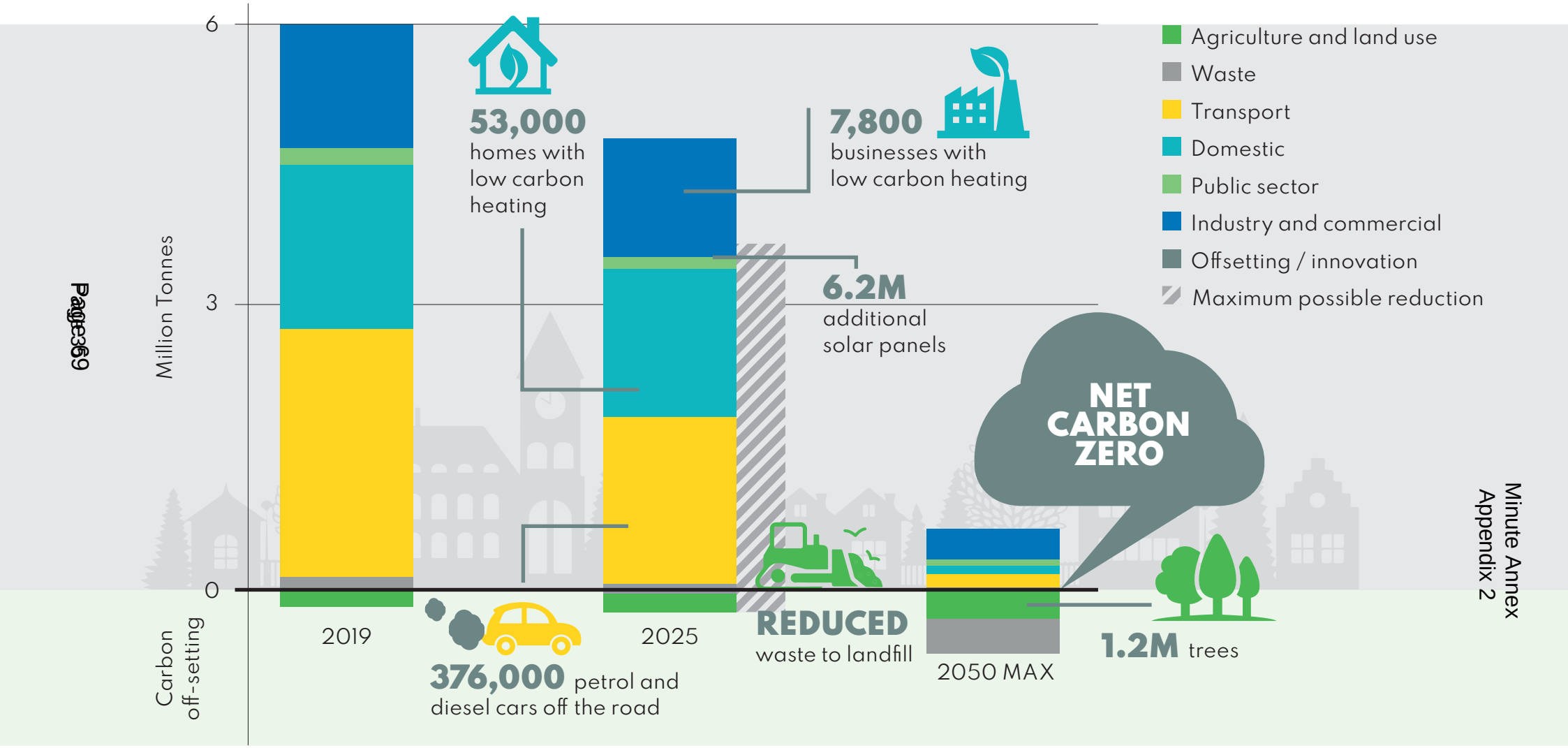




Be as ambitious as possible:

By 2025, we need to reduce carbon emissions by between ~1.3 and 2.8M tonnes. That's a 20%-40% saving from 2018 levels. Achieving a 20% reduction in emissions over a five-year period is extremely challenging, requiring levels of funding and policy changes that are not currently in place. We believe that reaching a reduction in carbon emissions of 40% is necessary but likely to be impossible unless fundamental changes in national policy and funding levels occur.

OUR PATHWAY TO NET ZERO.
REDUCTION OF 1.3M TONNES OF CARBON REDUCTION BY 2025



Estimate the scale of the challenge:

Creating deep emissions cuts requires us to reduce our dependency on fossil fuels and move towards low carbon alternatives. 53,000-110,000 homes, 7,800-25,300 businesses, and 9,900-19,900 public sector buildings need become more energy efficient and move away from gas heating. 376,000- 493,000 fossil-fuel vehicles need to be avoided or replaced by electric vehicles, walking, cycling or public transport. As we move towards electric vehicles and heating, Surrey needs to contribute to the decarbonisation and management of the electricity grid by increasing the capacity of renewable energy by 1244 MW of low carbon electricity through the installation of about 6.2 million solar panels and other forms of renewable energy. Consumption emissions generated outside of Surrey must be reduced by moving towards more local and sustainable products and services with less waste.

Solar Together:

Solar TogetherSurrey is an innovative new scheme offering high-quality solar panels and battery storage, with 6,948 residents registering during the first campaign. It is a group-buying scheme, which brings together Surrey's households to get high-quality solar panels at a competitive price.

LOCASE
LOW CARBON ACROSS THE SOUTH AND EAST

LoCase:

Surrey County Council is a partner in the Low Carbon Across the South and East (LoCASE) programme. LoCASE is supported by the European Regional Development Fund to provide a free business support programme in the South and East. The aim is to help your business to become more competitive and profitable while protecting the environment and encouraging low carbon solutions. LoCASE offers funding of up to £10,000 for small and medium sized enterprises, to improve green credentials.

Avoid and reduce future impacts:

Carbon emission reduction can be accelerated, and further emissions prevented, by putting in place the planning and infrastructure that is consistent with a low-carbon future. A Climate Change Adaptation and Resilience Plan for Surrey is being developed, which sets out how we manage risk and try to minimise the impacts of climate change on health and wellbeing, buildings and infrastructure, businesses, agriculture, and our natural environment.

Reap the wider benefits:

Tackling Climate Change is about changing things for the better and will result in; reducing fuel bills through better quality housing, reducing harmful air pollution by reducing the amount motor vehicles and gas boilers, creating local sustainable high streets and jobs, improving the environment through less waste, and supporting our wildlife.

Green Jump Surrey

GHLAD Funding Insulating Homes:

More than 350 households across Surrey signed up to Green Jump Surrey to make their homes more sustainable and reduce their bills. £2.9m was awarded to the Action Surrey Partnership of local Authorities with an additional £750,000 contribution from Surrey Counter Council to cover the full cost of works up to the value of £15,000.

WHERE CHANGE NEEDS TO HAPPEN

Everyone needs to act:

The scale and complexity of the challenge is such that everyone needs to play a role in tackling climate change. The four areas of focus reflect changes that need to happen: in our communities (Greener Futures Communities), our public sector (One Net Zero Public Estate), our supporting infrastructure (Build back Greener) and our land (Grow back Greener).

DELIVERY PLAN PROGRAMMES:

Greener Futures Communities:

95% of Surrey's carbon emissions are generated from the homes and vehicles of our 1.2 million residents and 65,000 businesses. Many face significant challenges to decarbonise. Individuals can reduce their carbon footprint by changing the way they travel, shop, eat and by reducing their waste. Homeowners and landlords can create energy efficient buildings which use low-carbon heat pumps, and maximise on-site renewable energy. Businesses can set ambitious climate reduction targets and offer low-carbon goods and services to residents. Communities can work to improve neighbourhoods by supporting community energy, planting, active travel, sustainable commerce and waste reduction projects.

Community-led climate change hubs are springing up across Surrey, including Zero Carbon Guildford and Mole Valley Climate Hub to support faster action on tackling climate change.

One Net Zero Public Estate:

Local Authorities, Surrey County Council, NHS, Police and others in the Public sector generate around 2% of carbon emissions. They can set ambitious targets to reduce emissions across their organisations, services and supply chains; putting sustainability at the heart of every decision.

Public sector bodies are setting ambitious carbon reduction targets. NHS are seeking to be net-zero carbon by 2040 with a net-zero supply chain by 2045. Surrey Police are seeking decarbonise their buildings and fleet by 2030.

Build back better:

Supporting infrastructure can make it possible for residents and businesses to make low carbon travel and lifestyle choices and avoid the cost of expensive retrofit. To ensure that everything we build is fit for a low carbon future, planning authorities and developers can support net-zero developments which are adapted to the impacts of climate change and achieve biodiversity net-gain.

New Local Cycling and Walking Infrastructure Plans are being developed to improve cycle paths and footways.

Grow Back Greener:

Land naturally tempers flooding and creates cool spots during hot weather supporting many biodiverse habitats. Through soil and vegetation, the land can absorb 3% of Surrey's carbon emissions, tempered by emissions produced by livestock. Through improved land management landowners and managers, including Local Authorities, can enhance nature's ability to store carbon, reduce flooding, provide shade and support biodiversity.

> Surrey has set itself a target to facilitate the planting of 1.2 million trees over the next decade. That's one for every resident.

THE ROLE OF LOCAL AUTHORITIES

To take action:

Around 70 actions have been identified, which build on action already being undertaken by Local Authorities[1iv]. As well as setting ambitious targets to reduce emissions in our own organisations, Local Authorities will act to enable others to make changes within their homes, businesses and neighbourhoods. This requires Local Authorities to consider climate change in everything they do. Working closely together, Local Authorities seek to maximise shared expertise and make delivery more uniform, efficient and cost effective.

[1]Local Authorities includes Surrey County Council and 11 Borough and District Councils in Surrey..

To make change for the benefit of all:

Local Authorities will seek to ensure that action on climate change also leads to a better Surrey overall. Whether is it lower fuel bills, cleaner air, less waste, more job opportunities or more accessible green spaces. Where residents may be disproportionately affected by the costs or impacts of climate change, we will make every effort to ensure that no one is left behind in the delivery of the county's target.

To bring people together and be a strong voice for change:

A communication and engagement plan[v] has been developed which seeks to put residents, communities and businesses at the heart of delivery; building a network of strong partnerships that are critical to delivering the county's targets. Local Authorities will continue to lobby for changes to Government policy and levels of investment, which will be a pivotal success factor in achieving Surrey's targets.

To build firm foundations from which climate action can grow:

As well as making rapid carbon emission reduction over the next five years, Local Authorities are looking to build greater change over the coming decades. A Greener Futures Finance Strategy[vi] will enable us to use new finance mechanisms to support climate action, focusing Local Authority finance on areas of greatest need. Local Authorities will trial innovative solutions to accelerate action and create new job opportunities. We will seek to minimise the need for carbon offsetting by reducing carbon emissions as much as possible, however, where there is a need to offset, the offsetting activity will be used to drive real change locally.

Surrey County Council has Committed to:

- Embedding climate change considerations into everything we do as an organisation.
- Including climate change as part of all council decision making.
- Looking at best practice.
- Working collaboratively with the Government.

HOW WILL WE KNOW WE HAVE SUCCEEDED?

The Greener Futures Board:

Leaders representing businesses, residents, public sector and climate experts will oversee progress. Recommendations made by the Board will be taken into account when decisions are made through Surrey's local authorities governance processes.

Through two-way communication:

A network of partners will be fostered to enable them to provide feedback on the progress of action across Surrey and build momentum to support delivery.

Through regular monitoring:

Compared with carbon emissions estimates in 2019/2020, progress against Surrey's Climate Change Strategy will be reported on an annual basis which ensures that the Delivery Plan supports the level of change needed to achieve the 2030 and 2050 net-zero carbon targets[vii].

The Greener Future Board brings together a powerful alliance of key stakeholders to support the Delivery Plan, and steer its progress. They will work with a network of partners to mobilise climate action across the county alongside wider social, health and economic benefits.

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| GREENER FUTURES COMMUNITIES: DIRECT EMISSIONS[2]

Aim:

Empowering individuals and businesses to reduce emissions from energy consumption and transport, and maximise locally-produced renewable energy.

Emission estimate in 2018:
6.6MtCO2e

Estimated annual emissions reduction by 2025:
1.2MtCO2e[3] (equivalent to a 21% reduction compared to 2020).

Of which, expected emission savings from additional renewable energy:
292 ktCO2e

[2]Direct emissions refer to scope 1&2 emissions in line with national emissions reporting: https://ghgprotocol.org/standards/public-sector-protocol.
[3]Including a saving of 491ktCO2e mainly what is expected to occur through the decarbonisation of the electricity grid.

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025 (ktCO2e)	What needs to happen	Local Authority action to 2025
Vulnerable or low-income residents and landlords	20% of fuel poor and vulnerable homes[4]	118	Elderly and economically disadvantaged residents are supported to install low carbon measures[5] that reduce bills and support independence. Landlords put low carbon measures on their buildings to reduce tenants' energy bills.	(1) Deliver retrofit programme funded by the Green Homes Grant Local Authority Delivery Fund[6,viii]. (2) Work with social housing providers to accelerate low carbon measures for social housing[7]. (3) Enforce minimum energy efficiency standards for the private rented sector. (4) Explore setting up a loan scheme to help landlords improve buildings and reduce emissions for the benefit of tenants.

[4]Equivalent to 32,713 number of homes and 7% of total housing in Surrey.
[5]It is assumed that around 1/3 of households install low carbon heating and all increase their energy efficiency between 66 and 83%.
[6]£15M has been secured from the Green Homes Grant Local Authority Delivery Fund.
www.gov.uk/government/publications/green-homes-grant-local-authority-delivery-scheme-entering-a-bid
[7]Such as the Social Housing Decarbonisation Grant;
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1016303/shdf-wave-1-competition-guidance.pdf

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025 (ktCO2e)	What needs to happen	Local Authority action to 2025
Off-gas households	20% of off-gas homes[8]	41	Switch from high to low carbon heating and energy efficiency[9]; focused in Caterham, Camberley, Weybridge and Staines.	(5) Encourage the uptake of national funding schemes such as the home upgrade grant (HUG)[ix]. (6) Explore setting a up loan scheme to help high carbon pay for low carbon measures and reduce the cost of heating.
All other residents	2%-13% of homes[10,11]	32-441	Residents to reduce energy consumption, maximise renewable energy and switch to low carbon heating[12].	(7) Implement Solar Together – a collective building scheme to reduce the cost of PV. (8) Encourage the uptake of national funding schemes such as proposed heat pump grants[x]. (9) Consider other options to support retrofit in homes.
Commercial and industrial properties	8%-26% emission reduction	99-323	Businesses to reduce energy consumption, maximise renewable energy and switch to low carbon heating[13].	(10) Implement LoCASE, which offers grants to small and medium enterprises (SMEs) for energy efficiency measures[xi].

[8] Equivalent to 11,396 number of homes and 2% of total housing in Surrey.
[9] As footnote 9.
[10] A range represents the difference between a what is likely to be achievable within the current policy and market conditions, and what needs to happen, but is unlikely to unless key changes are made to policy and funding.
[11] 2-13% is equivalent to 9,000- 64,000 households.
[12] As footnote 9.
[13] Assuming 5% efficiency, 15% switch to electric heating, and 4% increase in electricity from appliances and lighting and a reduction in industrial process emissions. High ambition 12% efficiency, 19% switch to electric heating, and 10% decrease in electricity from appliances and lighting and a reduction in industrial process emissions.

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025 (ktCO2e)	What needs to happen	Local Authority action to 2025
Resident transport and commuters	16%-31% emission reduction from private vehicles	356-680	Residents to reduce car journeys and shift away from privately-owned petrol and diesel cars in favour of active and sustainable travel options[14].	Implement measures following the consultation on the Local Transport Plan 4[xii] including: (11) Provide secure cycle parking, bike hire and promotion of electric cargo bikes. (12) Develop Mobility service app to facilitate journeys by public transport. (13) Implement the emerging Bus Service Improvement Plan. (14) Consider options for car demand management such as emission-based charging. (15) Expand and promote the use of ultra low emission vehicles and car clubs. (16) Carry out engagement activities that promote active and sustainable travel. (17) Encourage the provision of key services within 20 minute neighbourhoods.

[14] 3% reduced journeys, 1% reduction in road transport, 48% of vehicles are electric or hybrid, 71% of buses and 40% trains are electric.

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025 (ktCO2e)	What needs to happen	Local Authority action to 2025
Commercial and goods vehicles	16-31 emission reduction from freight	76-145	Reduce the use of fossil-fuel-powered goods vehicles and shift to low carbon delivery[15].	(18) Consider options for traffic re- routing and delivery hubs to encourage lower freight (associated measures to support last mile delivery using e-cargo bikes). (19) Consider options to introduce an eco-levy (pay as you drive). (20) Deliver EV taxi programme to encourage taxi companies and drivers to invest in electric fleet in future.

[15] 8% increase in freight miles and increasing efficiency by 40%.

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| GREENER FUTURES COMMUNITIES: INDIRECT EMISSIONS[16]

Aim:

Accelerate action within local communities and businesses; working towards a more circular and low carbon economy and encouraging a wide range of community carbon reduction initiatives.

Emission estimate in 2018:
Indirect emissions from Surrey's economy is estimated to be around two to three times more than direct emissions[xiii].

[16] Indirect emissions refer to scope 3 in line with national emissions reporting: **https://ghgprotocol.org/standards/public-sector-protocol.**

Who needs to act	Expected progress by 2025	What needs to happen	Local Authority action to 2025
Community groups and residents	Communities feel empowered to take action in their neighbourhoods with the support of Local Authorities neighbourhoods with the support of Local Authorities.	Residents to take an active role in helping to address climate change within their own lives and through volunteering. Develop community-led projects such as community energy, active travel, waste prevention, planting and food growing. Use the strong community voice to lobby for faster national change.	(21) Improve approach to communications and community engagement through the delivery of a communication and engagement plan[xiv]. (22) Work with a network of community partners through the Greener Futures Climate Delivery Network and others to encourage participation and provide support for community-led activities. (23) Support and encourage community sustainability champions. (24) Work with schools to empower young residents to take action on climate change. (25) Implement the community energy pathway to give communities the skills to invest in energy efficiency measures and renewables. (26) Encourage carbon reduction projects to bid for Your Fund Surrey[xv], which provides funding for capital projects which reform neighbourhoods. (27) Transform volunteering approach to maximise opportunities for communities and businesses to volunteer for Surrey's environment. (28) Consider options to put in place two repair and reuse cafes. (29) Join community groups to lobby National Government on key issues set out in Surrey's Climate Change Strategy.

Who needs to act	Expected progress by 2025	What needs to happen	Local Authority action to 2025
Business and academia	Businesses show leadership by tackling their own emissions and offering low carbon goods and services for Surrey.	Businesses to set emission reduction targets and reduce emissions in their buildings, activities and workplaces. Stimulate clean growth through a vibrant and circular economy in rural and urban areas; maximising opportunities for local green jobs.	(30) Implement LoCASE, which offers grants in the low carbon sector for business development activities[xvi]. (31) Explore opportunities for industry and academia to pioneer innovative low-carbon solutions. (32) Encourage major businesses to be leaders in tackling climate change and showcase good practice. (33) Develop a Green Skills Academy to bridge the skills gap and foster local job creation. (34) Develop an of evidence base on farming, food and drink, rural tourism and consider options to support rural development.

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| ONE NET ZERO PUBLIC ESTATE: DIRECT EMISSIONS

Aim:

To reduce direct emissions through decarbonising public sector buildings and fleet; and explore opportunities for carbon offsetting and renewable energy generation on public land[17].

Emission estimate in 2018:
164 ktCO2e[18].

Estimated annual emissions reduction by 2025:
16 ktCO2e[19] (equivalent to a 12% reduction compared to 2020).

Of which, expected emission savings from additional renewable energy:
16 ktCO2e.

[17] Most public sector bodies have set stretching emission reduction targets.
[18] Transport emissions have been not included in this total due to limited breakdown of transport emissions. Assuming that the public sector contributes a similar proportion of transport emissions as it does to the building sector, this would be equivalent to 121ktCO2e.
[19] Including a projected increase in baseline carbon emissions of 1.1ktCO2e

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025 (ktCO2e)	What needs to happen	Local Authority action to 2025
Surrey County Council and Local Authorities	10% reduction - 40% decrease against 2030 target	18	Reduce carbon emissions from Local Authority estate through insulation, low carbon heating and PV. Reduce emissions by reducing fleet size, encouraging active travel and low carbon vehicles[20].	35) Continue with estate rationalisation. (36) Continue with streetlight LED replacement. (37) Scale up Local Authority building retrofit programmes. (38) Develop Local Authority new-build net-zero design standard. (39) Implement EV charging, fleet replacement and management.
Other Public Sector Direct emissions	13%-31% emission reduction	11-21	Reduce organisational emissions from all public sector buildings and fleet.	(40) Work with NHS[xvii], Police[xviii], education and other public sector bodies to deliver their ambitious carbon reduction targets.
Large-scale renewables/ Offsetting	A maximum of 65MW of additional PV operating	16,103	Plan and install renewable energy and other offsetting projects on public sector land.	(41) Implement ground-mounted PV projects. (42) Develop carbon offset projects.

[20] As footnote 16

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| ONE NET ZERO PUBLIC ESTATE: INDIRECT EMISSIONS[xix].

Aim:

To reduce emissions where public sector has a key influence though supply-chains, staff behaviour and estate in public sector ownership.

Emission estimate in 2019/2020:
Indirect emissions from public sector not known but likely to be around four times more than direct emissions[xix].

Who needs to act	Expected progress by 2025	What needs to happen	Local Authority action to 2025
Schools and other Local Authority-Leased buildings[21]	Emission reduction targets and Carbon Management Plans in place.	Local authority-owned buildings leased to others to reduce carbon emissions through low carbon heat, energy efficiency, EV charge point installation, and support school travel plans.	(43) Consider approaches to decarbonising buildings owned by Local Authorities but leased to others. (44) Provide technical support and help to access funding[22] for schools. (45) Consider setting up loan scheme to help schools pay for the up-front costs of energy efficiency and low carbon heating repaid through reductions in energy bills.
Contractors that work on behalf of the public sector	Low carbon Procurement Policy in place.	Reduce emission of services undertaken on behalf of the public sector by private contractors. Reduce carbon footprint of goods. Offer low carbon financial services that divest from fossil fuels.	(46) Assess the carbon impact of current contracts. (47) Undertake targeted engagement with key contractors and market collaboration. (48) Put in place a low carbon procurement framework. (49) Work towards a portfolio of responsible pension investments.
Public sector staff	Sustainable workplace and staff travel policies in place.	Support for staff to reduce workplace emissions such as from commuting, business travel and energy savings in office and home working.	(50) Develop sustainable staff travel policies (51) Put in place EV charging and bike storage to enable staff to switch to active and sustainable business travel and commuting. (52) Develop Green Champions schemes to encourage staff to reduce emissions in their workplaces and more widely.

[21]And other organisations which operate from land and buildings owned by local authorities.
[22]E.g. Public Sector Decarbonisation Scheme; https://www.gov.uk/government/collections/public-sector-decarbonisation-scheme

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| BUILD BACK BETTER: PLANNING AND INFRASTRUCTURE

Aim:

Design with climate in mind to ensure that planning decisions, regeneration projects and major infrastructure are ready for a zero-carbon future and are adapted to the deal with the impacts of climate change on people and wildlife.

Emission estimate in 2018:
Carbon emissions are not attributable but actions in this section are deemed essential to ensure that emissions reduction and climate adaptation can take place.

Who needs to act	Expected progress by 2025	What needs to happen	Local Authority action to 2025
Surrey County Council, Local Authorities and the construction industry.	Sustainability targets included in all major regeneration projects.	Produce exemplar development that works hand-in-hand with communities, allowing residents and businesses to make sustainable choices, and be future-proofed and resilient to the impacts of climate change.	Implementing Surrey Infrastructure Plan once agreed[23] including: (53) Provide clear carbon and sustainability targets at the design stage. (54) Involve residents and communities at early design stage. (55) Implement of a pipeline of place-making projects[24]. (56) Incorporate the key features of '20 minute neighbourhoods' and mobility hubs set out in the draft Local Transport Plan[xx].
Planning authorities and developers.	Local Authorities embed future climate resilience and low carbon into their planning policies.	Align local planning policies to be consistent with climate and net-zero targets, recognising that it is cheaper to design climate change measures into new-developments than add them later.	(57) Develop guidance to planners on net-zero compatible policies and spatial planning guidance, including 'Surrey Street Design Guide: Healthy Streets for Surrey'. (58) Consider the potential to use carbon offsetting in the event that developments cannot be fully carbon neutral.

[23]The Surrey Infrastructure plan will be considered by Cabinet in October.
[24]These include potential projects in Farnham, Stains, Horley and Caterham.

Who needs to act	Expected progress by 2025	What needs to happen	Local Authority action to 2025
Energy and communication network providers and local authorities.	Plans in place to roll out infrastructure and service improvement consistent with a low carbon future.	Support a major upgrade in telecommunications, transport, energy and waste infrastructure.	(59) Create Local Cycling and Walking Infrastructure Plans (LCWIP) to improve walking and cycling infrastructure as set out in the draft Local Transport Plan (LTP4). (60) Roll out EV charge point infrastructure. (61) Implement the Rail and Bus Strategy. (62) Support a telecommunications upgrade (63) Take forward a heat mapping project as a step towards developing an energy masterplan. (64) Increase efficiencies and reduce emissions from waste services.
Local Authorities and Environment Agency NHS Care Commissioning Groups and Water Companies.	Build approach to making Surrey more resilient to the impacts of climate change.	Reduce the main risks of future climate change including increased flooding, drought and heat waves.	(65) Continue to implement and update the Local Flood Risk Management Strategy and action plan . (66) Develop a Climate Change Adaptation and Resilience Plan.

SUMMARY OF PROGRAMME AIMS, TARGETS AND KEY INITIVIVES

| BACK GREENER: MANAGEMENT OF GREEN SPACES

Aim:

Managing woodland, green spaces and farmland to maximise our ability to absorb carbon from the atmosphere, grow food sustainably and improve habitats needed for wildlife to thrive.

Estimated sequestration potential in 2018:
-240 ktCO2e

Estimated additional sequestration potential to 2025:
-8 ktCO2e

Who needs to act	Expected progress by 2025 (ktCO2e)	Estimated annual carbon reduction by 2025	What needs to happen	Local Authority action to 2025
Land owners and managers (including Local Authorities)	Sequester carbon through improved land management and land use change[25]	6	Considering local environment, biodiversity and carbon sequestration in all decisions about landscapes. Bringing unmanaged woodland into a maintained woodland managed for timber, planting trees, hedgerows and creating new woodland, and investing in carbon hungry landscapes such as heath and wetlands. Connecting people to green spaces in a sustainable way for their health, well-being and creativity.	(67) Develop of a Land Management Framework to ensure that multifunctional benefits are considered including carbon, biodiversity and flood protection. (68) Embed natural capital and land use opportunities designed to sequester increased carbon emissions into all appropriate infrastructure and development schemes, countryside estate management plans and land management policies. (69) Work with partners and academics to lobby Government to publish carbon sequestration metrics and guidance for land use change. (70) Bring 3,330 ha of woodland back into management, including investigating markets for timber and wood fuel. (71) Facilitate the planting of 600,000 trees and hedgerows in Surrey, with as many of these planted on Surrey County Council owned land as appropriate. (72) Develop the investment vehicles to fund carbon sequestration and natural capital schemes (through carbon offsetting and biodiversity net gain) and engaging with Surrey based businesses to develop joint opportunities.

[25] Assumes an increase in forest coverage by 1.5% and tree planting outside of woodlands increases by approximately 2,070 trees.

Who needs to act	Expected progress by 2025	Estimated annual carbon reduction by 2025	What needs to happen	Local Authority action to 2025
Farming community and land owners	Embedding ecosystem services into farming and land management[26]	1	Managing farming practices to increase carbon sequestration opportunities.	(73) Implement the Environmental Land Management programmes from 2024 utilising funding from the Farming in Protected Landscapes Programme (in Surrey Hills and High Weald Areas of Outstanding Natural Beauty (AONB) (74) Manage Local Authority-owned farms based on the principles in the Land Management Framework.

[26] Assumes no increases in Livestock and a decrease in grassland and crop land.

GLOSSARY OF TERMS

20 minute neighbourhoods	A highstreet where residents have easy access to facilities such as schools, shops, restaurants, play areas, medical facilities etc. By having facilities no more than 20 minutes away, we can reduce our reliance on cars and reduce our carbon emissions.
Air pollution	Gases and particles in the air which cause harm to human health or the environment. Man-made air pollution is mainly caused by dust and oxides of sulphur or nitrogen from vehicle exhaust fumes and factory emissions.
Biodiversity	The variety of plant and animal species in the world, or in a particular habitat. It is generally a good thing to have more variety and a larger number of species.
Biodiversity net gain	An increase in the variety of plant and animal species compared to what was there before, through development or land management.
Carbon emissions	Gases that cause climate change (also known as greenhouse gases). Carbon dioxide (CO2) is the main gas which is released when fossil fuels are burned. Other greenhouse gases include methane (CH4) and nitrous oxide (N20.
Circular economy	The aim of a circular economy is one where there is no waste. All items are reused, re-purposed or recycled. Overall, this reduces our consumption and the depletion of our natural resources with the aim of being more sustainable.
Climate emergency	A formal recognition that climate change is a serious threat to our way of lives and it needs addressing through emissions reduction and changing our lifestyles. Most Local Authorities in Surrey and across the UK have declared a climate emergency.
Direct emissions	Direct emissions are greenhouse gases that are emitted through processes that we own or control. These would include the heating in our homes/ offices or from the vehicle we choose to drive.

Fossil fuels	Fuels that are extracted from underground (sometimes under the seabed) and the products that are made from them. Common fossil fuels include coal, oil, natural gas, petrol and diesel.
Fossil-fuel based road transport	Cars, trucks, motorbikes and all other forms of road transport that rely on petrol, diesel, natural gas or liquid petroleum gas.
Heat Pump	A form of electric heating that is very efficient.
Man-made greenhouse gases	Carbon emissions produced by human activity and are responsible for the climate change we are experiencing today.
MtCO2e	MtCO2e (million tonnes of carbon dioxide equivalence) is a unit of measurement that to explain the quantity of carbon emissions in the atmosphere.
Natural capital	Natural capital used to describe the stock of the world's natural resources such as air, water, soils, and all living organisms. We rely on these resources for all of our needs and there is a finite stock of many of them, so measuring natural capital is important to be sustainable.
Net carbon store	Overall, no additional carbon emissions are added to the atmosphere, because the amount of greenhouses gases we emit is equal to the amount we remove from the atmosphere (through carbon sequestration or off-setting).
Pathway to net-zero	What needs to happen to reduce carbon emissions over time to achieve the aim of being net-zero.
Place making	Place-making refers to an approach to the planning, design and management of public spaces with the aim of creating neighbourhoods and communities that focus on residents' overall wellbeing.
Retrofit	An additional component that it did not have when it was made.

[i]Not yet published - available on request

[ii]Surrey's Climate Change Strategy, Surrey County Council, May 2020: https://www.surreycc.gov.uk/__data/assets/pdf_file/0003/225615/Surreys-Climate-Change-Strategy-2020.pdf

[iii]Surrey Carbon Baseline Study, University of Surrey, April 2021; not yet published – available on request.

[iv]Elmbridge Borough Council; https://www.elmbridge.gov.uk/news/climate-change-ambitions/, Epsom and Ewell Borough Council; https://www.epsom-ewell.gov.uk/residents/climate-change; Guildford Borough Council; https://www.guildford.gov.uk/article/24636/Our-progress-in-tackling-climate-change, Mole Valley District Council; https://www.molevalley.gov.uk/home/community/climate-change-sustainability, Reigate and Banstead Borough Council; https://www.reigate-banstead.gov.uk/info/20065/environmental_sustainability_and_climate_change, Runnymede Borough Council; https://www.runnymede.gov.uk/climate-reports-statistics-1/climate-related-policies-strategies, Surrey Heath Borough Council; https://www.surreyheath.gov.uk/residents/climate-change/how-were-tackling-climate-change, Tandridge District Council; https://tandridge.moderngov.co.uk/documents/s1904/Climate%20Change%20Action%20Plan%20Report.pdf, Waverley Borough Council; https://www.waverley.gov.uk/Services/Environmental-concerns/Sustainability-and-conservation/Climate-change-strategy-and-action-plan, Woking Borough Council; https://www.woking.gov.uk/nature-and-sustainability/climate-change-0

[v]Not yet published - available on request

[vi]Not yet published - available on request

[vii]Not yet published - available on request

[viii]Sustainable Warmth Strategy, HMG, February 2021; https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england

[ix]Home Upgrade Grant featured in HMG, Sustainable Warmth Strategy, February 2021; https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england

[x]Green grants of £7,000 to help households replace gas boilers, The Times, August 2021; https://www.thetimes.co.uk/article/green-grants-of-7-000-to-help-households-replace-gas-boilers-6j05vtmd6

[xi]Surrey County Council, September 2021; https://www.surreycc.gov.uk/people-and-community/climate-change/businesses, LoCASE, September 2021; www.locase.co.uk

[xii]Local Transport Plan 2022-2032, July 2021; https://s3-eu-west-2.amazonaws.com/commonplace-customer-assets/surreyltp4/Surrey%20Transport%20Plan.pdf

[xiii]Surrey Carbon Baseline Study, University of Surrey, April 2021; not yet published – available on request.

[xiv]Not yet published - available on request

[xv]£100M has been secured for Your Fund Surrey; https://www.surreycc.gov.uk/people-and-community/voluntary-community-and-faith-sector/funding/community-projects-fund

[xvi]Surrey County Council, September 2021; https://www.surreycc.gov.uk/people-and-community/climate-change/businessesgrantprogramme

[xvii]Delivering a Net Zero NHS service, National Health Service, October 2020; https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/

[xviii]Surrey Policy Carbon management Plan, March 2021; https://www.surrey-pcc.gov.uk/wp-content/uploads/2021/03/05b-Surrey-Police-Carbon-management-plan-Final.pdf

[xix]Not yet published - available on request

[xx]Local Transport Plan 4, Surrey County Council; https://www.surreycc.gov.uk/roads-and-transport/policies-plans-consultations/transport-plan/consultations

[xxi]Surrey Local Flood Risk Management Strategy 2017-2032, Surrey County Council; https://www.surreycc.gov.uk/__data/assets/pdf_file/0005/136724/Surrey-Local-Flood-Risk-Management-Strategy-FINAL_v2.pdf

Surrey's Greener Future

SURREY COUNTY COUNCIL

GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN

2021-2025

EXECUTIVE SUMMARY

WHY SURREY HAS PRIORITISED ITS GREENER FUTURES

We can no longer think of climate change as a problem for the future[i].

It is already affecting the lives of millions of people across the globe, including those who live and work in Surrey. This Delivery Plan is the first phase of a 30-year plan to realise the ambitions set out in **Surrey's Climate Change Strategy**[ii]. It shows how everyone in Surrey can pull together to reduce carbon[1] emissions and adapt to the impacts of climate change. Through climate action, we can also make Surrey a cleaner, healthier place with vibrant communities and a thriving economy.

[1]For the purposes of this document "carbon" refers to carbon dioxide and other greenhouse gas emissions that cause global warming.

"Through collective climate action, we make Surrey a cleaner, healthier place with vibrant communities and a thriving economy"

Residents | Business | Surrey County Council | Local Authorities | Public Sector | Academia

WORKING TOGETHER FOR FOLLOWING BENEFITS

Less fuel poverty

Clearner air

Thriving communities

Connective infrastructure

Accessible green spaces

Less waste

Strong local economy

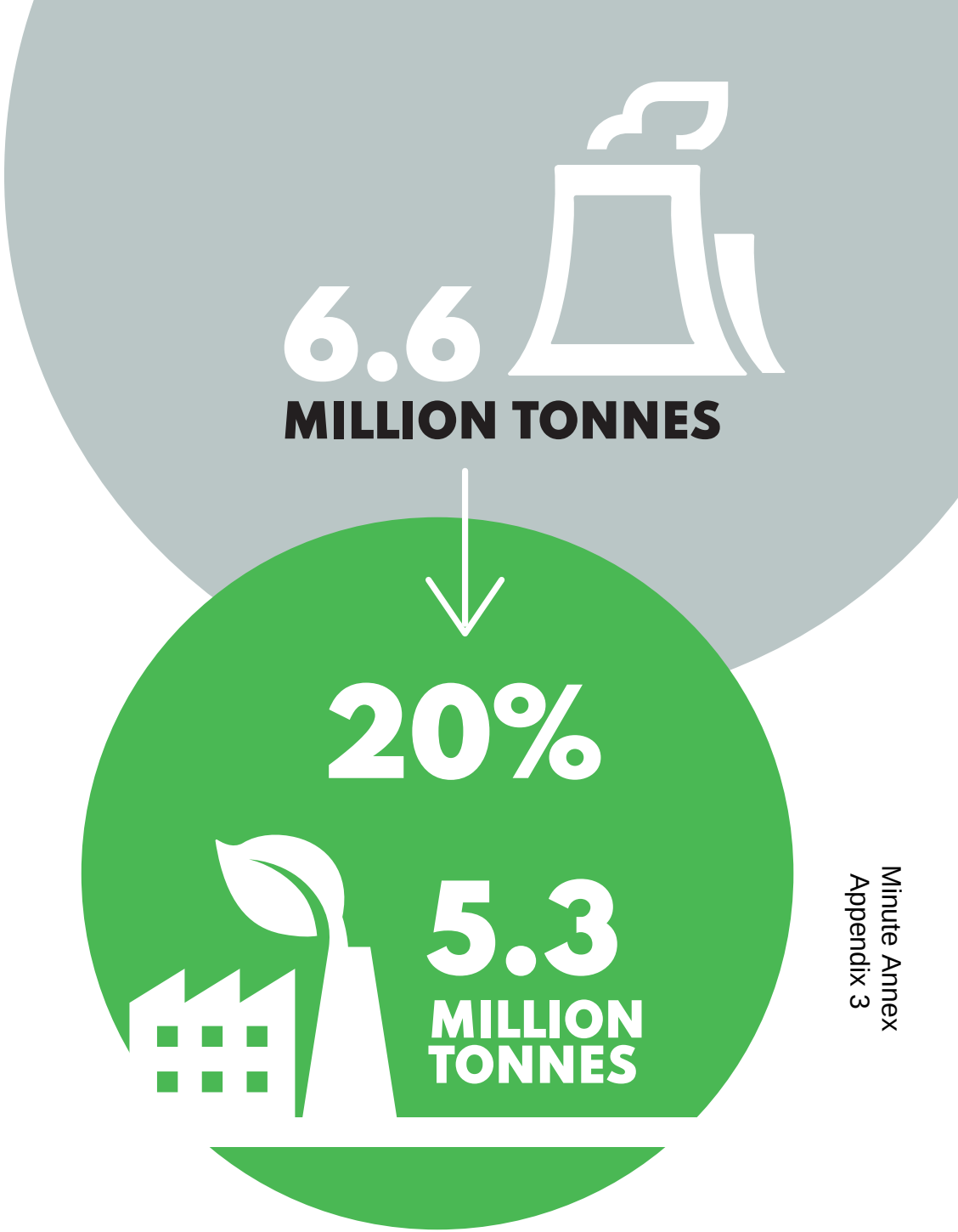
Greater lobbying power

WHAT SURREY NEEDS TO DO TO TACKLE CLIMATE CHANGE

In 2018, Surrey produced around 6.6 million tonnes of carbon emissions.

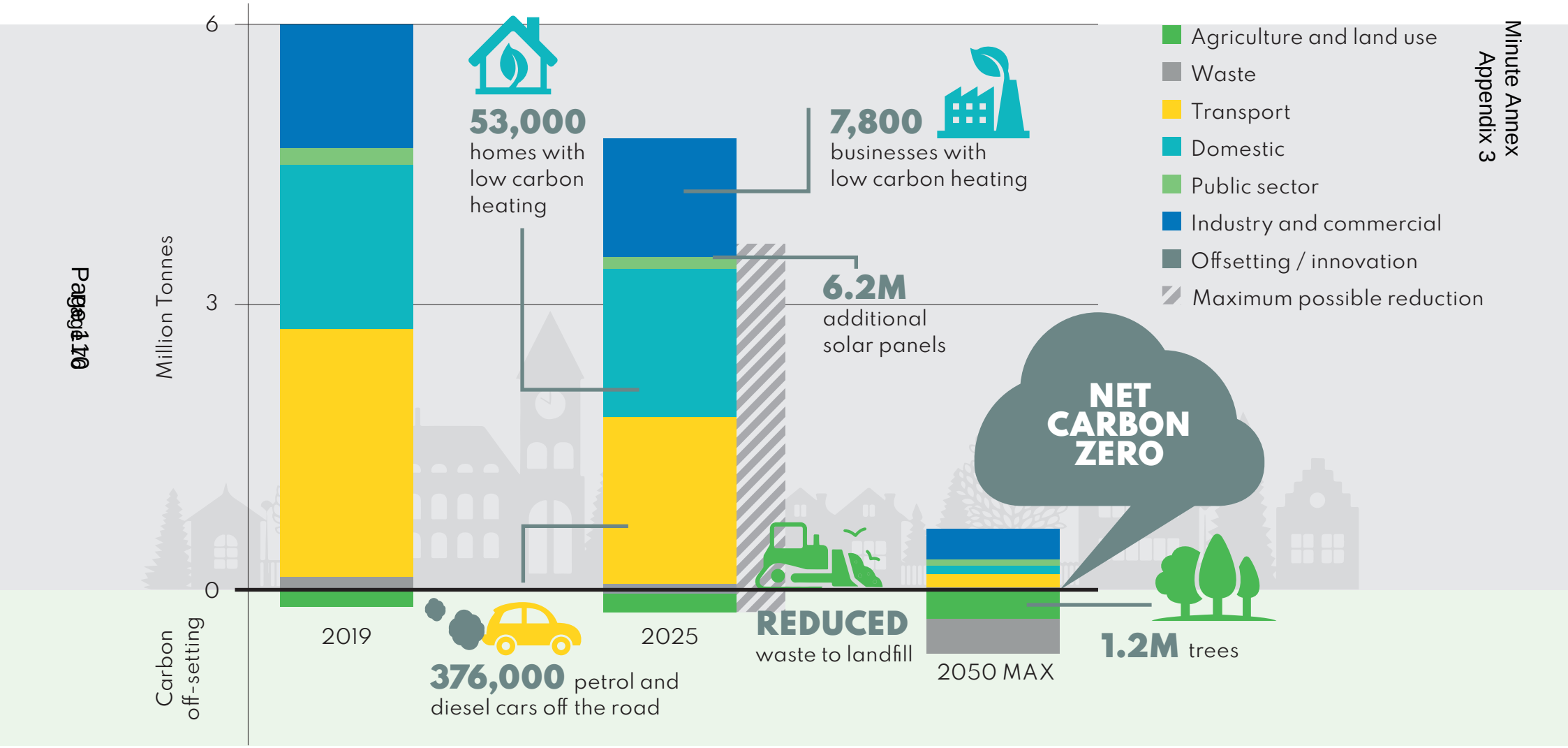
To be in keeping with Surrey's 2050 net-zero target, carbon emissions need to reduce by at **least 20%**[2] by 2025.

To achieve this level of reduction, the county needs to reduce its dependence on fossil fuels by moving away from petrol and diesel vehicles and gas heating, reducing energy consumption and increasing the local production of renewable energy. We also need to reduce the carbon impact of goods and services consumed by Surrey's residents, enhance the carbon-absorbing properties of Surrey's land, and adapt to a change in our climate to wetter winters and hotter summers.



[2]Against the baseline emissions estimate in 2018.

OUR PATHWAY TO NET ZERO.
REDUCTION OF 1.3M TONNES OF CARBON REDUCTION BY 2025



WHERE THE CHANGE WILL OCCUR

A complex problem requires a shared solution which will affect the lives of everyone who lives, works and visits Surrey.

Seemingly small changes to the lives of individuals, neighbourhoods, businesses and public services add up to real progress, which can be amplified even further when we work in partnership. The four areas of focus presented in this delivery plan reflect where changes need to happen: in our communities (Greener Futures Communities), our public sector (One Net Zero Public Estate), our supporting infrastructure (Build Back Greener) and our land (Grow back Greener). However, no matter how ambitious we are as a county, some obstacles cannot be overcome without changes to national government policies and a substantial increase in funding[3]; making lobbing Government and attracting greater investment a key part of this plan.

[3]Key askes for National Government are set out in Surrey's Climate Change Strategy.

THE ROLE OF SURREY'S LOCAL AUTHORITIES[4]

With over 99% of emissions beyond our direct control, Local Authorities cannot achieve a net-zero county alone, but we recognise that we have an important role to play.

Around 70 actions have been identified[5] that are designed to enable others to act, facilitate necessary infrastructure, provide leadership in meeting ambitious organisational emissions targets, and be a leading voice in affecting change outside of Surrey's boundaries.

[4] Local Authorities refers to Surrey County Council and the 11 borough and district councils that govern at a more local level.
[5] Some actions will be undertaken by Surrey County Council, some by individual boroughs and districts and some by all Local Authorities..

DELIVERY PLAN PROGRAMMES:

GREENER FUTURES COMMUNITIES

Aim: To empower individuals, businesses and communities to make reduce emissions in their own homes, communities and workplaces.

The role of Residents and Businesses

Individuals can reduce their carbon footprint by changing the way they travel, shop, eat and reduce waste.

Home owners, landlord and **developers** can create energy efficient buildings which use low-carbon heat pumps, and maximise on-site renewable energy.

Local Authority Priorities by 2025

Enabling residents:

- Support up to 20% of elderly residents, low income and off gas households to be warm, reduce bills and decarbonise by accessing Sustainable Warmth national grant funding.
- Encourage carbon emissions reduction in the private-rented sector by enforcing minimum energy efficiency standards and developing a loan scheme for low carbon improvements.
- Accelerate uptake of solar panels to around 10% of residential homes through the Solar Together Scheme.
- Support a move towards active and sustainable travel through a range of measures set out in the draft Surrey Local Transport Planiii.

Businesses can set ambitious climate reduction targets and offer low carbon goods and services to residents.

Enabling Business:

- Offer small businesses LoCASE grants to improve the sustainability of their businesses.
- Support the creation of job opportunities and job transfers to the green skills market through the development of a Green Skills Academy.

Communities can work to improve neighbourhoods by supporting community energy, planting, active travel, sustainable commerce and waste reduction projects.

Enabling Communities:

- Encourage the expansion of community energy through the Community Energy Pathwaywhich provides the skills needed to undertake community energy projects.
- Support sustainable community projects through Your Fund Surrey and empower the voluntary, community and faith sectors.
- Support the creation of local and sustainable options to travel, work and buy goods and services sustainably.

CO_2 ONE NET ZERO PUBLIC ESTATE

Aim: Local Authorities and other public sector organisations to reduce carbon emissions from their own buildings, vehicle and supply chains

What Public Sector can do

Local Authorities, Surrey County Council, NHS, Police and others in the Public sector can set ambitious targets to reduce emissions across their organisations, services and supply chains; putting sustainability at the heart of every decision.

Local Authority Priorities by 2025

- Work towards a net zero target of 2030 by achieving a 40% emission reduction in LocalAuthority buildings and vehicles.
- Support the decarbonisation of schools and other public sector buildings.
- Maximise renewable energy such as solar power on public land.
- Drive down emissions from public services including waste management, highways maintenance and social care by putting in place low carbon procurement policies.
- Encourage public sector staff to act sustainably in the way that they travel and carry out their work.

BUILD BACK GREENER

Aim: Design with climate in mind to ensure that planning decisions, regeneration projects and major infrastructure are ready for a zero-carbon future and are adapted to the deal with the impacts of climate change on people and wildlife.

The role of planning, place-making and development

Planning authorities and developers can ensure that everything we build is fit for a low carbon future, by designing net-zero developments which are adapted to the impacts of climate change, and achieve biodiversity net-gain.

Local Authority Priorities by 2025

- Implement the Surrey Infrastructure Plan to ensure that Local Authority projects have high sustainability standards.
- Support low carbon planning decisions by producing guidance that is in keeping with net zero carbon targets.
- Develop a surrey-wide transport network that prioritises walking, cycling, public transport, electric vehicle charging and enable a major upgrade in telecommunications.
- Support the transformation of a low carbon energy system by considering Surrey's potential for solar panels and heat networks.
- Protect residents against the impacts of extreme weather through the development a Climate Change Adaptation and Resilience Plan and implement the Flood Management Strategy and Action Plan.

GROW BACK GREENER

Aim: Manage woodland, green spaces and farmland to maximise the ability to absorb carbon from the atmosphere, grow food sustainablly and improve habitats needed for wildlife to thrive.

The role of Land Management

Land owners and managers, including Local Authorities, can help carbon-capture, reduce flooding and support biodiversity through improved management of green spaces.

Local Authority Priorities by 2025

- Develop a Land Management Framework to ensure that many benefits of land are taken into consideration, including carbon, biodiversity and flood protection.
- Bring 3330ha woodland back into management and facilitate the planting of 600,000 trees and hedgerows to low in more carbon, increase biodiversity and supply sustainable timber and wood fuel.

HOW OUR SUCCESS WILL BE MEASURED?

It is likely that the plan will need to be adapted to take into account changes to funding opportunities, technologies and market forces. Surrey County Council will track carbon emissions and publish progress against our net-zero targets on the Surrey County Council website. Progress will be regularly reviewed by the Greener Futures Board, who will be responsible for monitoring performance, suggesting improvements and lobbying Government. We will provide regular forums for partners and residents to feedback, in order to continually improve our impact.

The Greener Future Board brings together a powerful alliance of key stakeholders to support the Delivery Plan, and steer its progress. They will work with a network of partners to mobilise climate action across the county alongside wider social, health and economic benefits.

[i] Intergovernmental Panel on Climate Change 6th Assessment Report, August 2021: https://www.ipcc.ch/assessment-report/ar6/
[ii] Surrey's Climate Change Strategy, Surrey County Council, May 2020: https://www.surreycc.gov.uk/__data/assets/pdf_file/0003/225615/Surreys-Climate-Change-Strategy-2020.pdf
[iii] Local Transport Plan 2022-2032, July 2021; https://s3-eu-west-2.amazonaws.com/commonplace-customer-assets/surreyltp4/Surrey%20Transport%20Plan.pdf

[i] Intergovernmental Panel on Climate Change 6th Assessment Report, August 2021: https://www.ipcc.ch/assessment-report/ar6/
[ii] Surrey's Climate Change Strategy, Surrey County Council, May 2020: https://www.surreycc.gov.uk/__data/assets/pdf_file/0003/225615/Surreys-Climate-Change-Strategy-2020.pdf
[iii] Local Transport Plan 2022-2032, July 2021; https://s3-eu-west-2.amazonaws.com/commonplace-customer-assets/surreyltp4/Surrey%20Transport%20Plan.pdf

Surrey's Greener Future

SURREY COUNTY COUNCIL

SURREY COUNTY COUNCIL'S 2030 NET ZERO CARBON PROGRAMME

Minute Annex
Appendix 4

ABOUT THE COUNCIL'S CARBON EMISSIONS

In order to reduce the threat of climate change to our residents and landscapes, Surrey County Council and partners across the county have committed to reduce the county's carbon emissions to net zero by 2050. Surrey's Greener Futures Climate Change Delivery Plan is the first phase of a 30-year plan to realise the ambitions set out in Surrey's Climate Change Strategy.

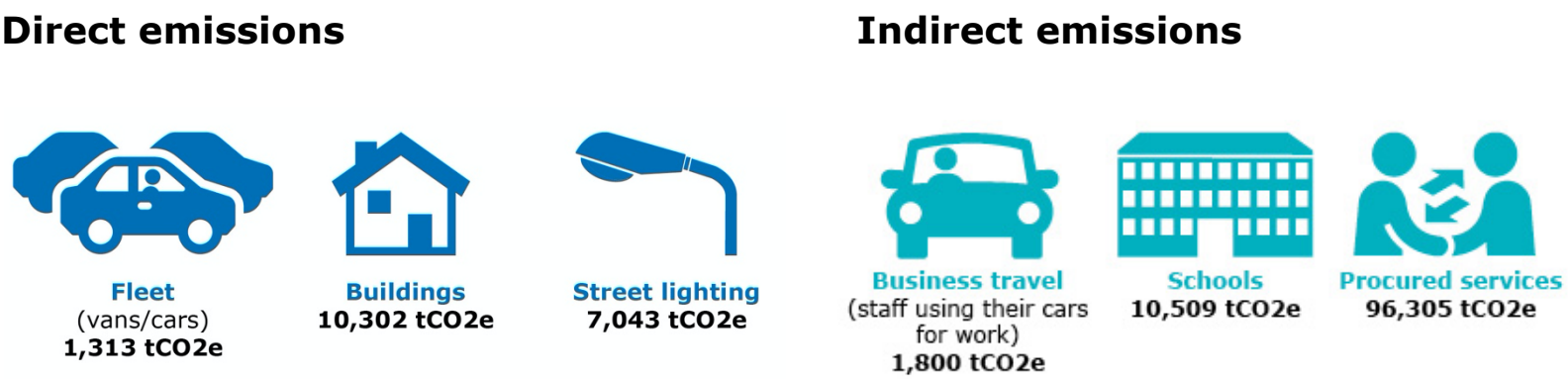
Although the Council's carbon emissions are a relatively small part of the county's overall emissions (less than 1%), the Council must lead in efforts to reduce carbon and contribute towards creating a net zero carbon county and, as such, it has committed to be a **net zero council by 2030**.

The carbon emissions within the scope of the 2030 target are those that we can measure accurately and are in the Council's direct control in accordance with the Greenhouse Gas Protocol.[1] These include gas and electricity used in approximately 220 buildings, fuel used in approximately 700 vehicles that the Council own and operate, and electricity used to power our 89,000 streetlights.

Carbon emissions can also be generated indirectly through buildings and land that the Council owns but over which it has little control in respect of their operation and maintenance (such as schools); the procurement of goods and services (supply chain emissions); and actions carried out on behalf of the Council by their staff (business travel and staff commuting). These emissions are estimated to be up to 4 time greater than the Council's direct emissions.

[1] The Greenhouse Gas Protocol supplies the world's most widely used carbon accounting methodology used to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions. https://ghgprotocol.org

Figure 1 - Infographic setting out direct emissions and indirect emissions



Although indirect emissions fall outside of the 2030 target, because they are not directly within the Council's direct control, the Council is still responsible for them and can influence a reduction. Therefore the Council has committed to set a net zero reduction target for each of it's indirect emission sources. Further information about the Council's indirect emissions is included in Figure 7 below.

Reducing the Council's direct emissions and indirect emissions falls under the **One Net Zero Public Estate programme** in the Greener Future Climate Change Delivery Plan 2021-25.

WHERE DOES CHANGE NEED TO HAPPEN?

In order to reduce the emissions produced directly and indirectly by the Council it will be **necessary for everyone to act,** see Figure 2 below. The impact of how we travel to and for work, the energy we use for power and heating offices and our homes when we work from home as well as the work we carry out on behalf of the Council or school will have a carbon impact. In order for staff and members to make changes to reduce carbon from their own activities, we need to support them by providing clear policies, guidance and incentives. Information and training needs to be available to all to ensure a consistent level of carbon literacy and we need to give staff and members the opportunity to influence and drive this agenda, through programmes such as **Greener Futures Champions** (see Figure 3 below).

Creating a Greener Future in Surrey is one of the **Council's four strategic priorities** and is therefore built into the refreshed organisation strategy. Carbon impacts of decisions are also included in Cabinet reports. There is more that we must do to ensure that carbon reduction and/or minimisation is built into the Council's decision making processes at every level and we must **understand the opportunities and challenges that each directorate faces** in achieving this aim.

Figure 2 - Key groups within the Council to affect change

Decision makers	Members	Staff
• Build our Greener Future ambitions into organisational and service design. • Champion carbon reduction in all internal (and external) communications. • Ensure that carbon reduction is embedded into decision making e.g. commissioning, procurement and strategy development and challenging when this does not happen. • Ensure that HR policies encourage modal shift from driving to active and public transport. • Ensure that policies do not penalise vulnerable staff and residents including those on lower incomes.	• Champion carbon reduction in all internal (and external) communications. • Lead by example in decarbonisation behaviours (i.e. working virtually as a first resort, travelling to and for work using active and public transport etc. • Sign up to the Greener Futures Member Charter which demonstrates their support for the Greener Futures Programme, including pledges such as to champion carbon reduction in all decision-making.	• Supported to prioritise travel to and for work using public transport, active transport, car-pooling or electric pool cars. • Ensure emissions are not increased by working from home (i.e. only heating room they are working in as opposed to whole house). • Become a Greener Futures Champion and seek opportunities to reduce carbon emissions and make environmental improvements within the Council, with partnership work and within the wider county. • Consider the carbon impacts of the work they do for the Council or schools and seek opportunities to reduce these. • Commissioners will stay abreast of market opportunities to decarbonise, build carbon reduction into new and re-procured contracts, focus on the biggest emitting providers and ensure that carbon reduction KPIs are met.

Figure 3 - Description of the Greener Futures Champions Network

Greener Futures Champions Network (GFCN)

The Greener Futures Champions Network – launching late 2021 – will embed the carbon reduction and wider environmental principles across all departments within the Council, ensuring that a greener future is at the heart of decision-making processes. It will be a voluntary network empowering staff to reduce the environmental impact and carbon emissions of their service through equipping them with necessary tools, training and support. The GFCN will link in with the organisational design work which is being developed through the Workforce for the Future programme, looking at how we create skills and development opportunities for staff.

Sponsored by the Executive Director of Environment, Transport and Infrastructure, GFCN will report into the Climate Change Board which will ensure that its success is frequently monitored with key performance indicators.

WHAT DO WE NEED TO DO?

Achieving the required reduction in the Council's direct and indirect emissions will require a step change in activity, which will have knock on impacts on resource and investment requirements along with the way we engage with staff and members, as set out above.

The following principles will guide our approach to delivery and will reduce the risk that decarbonisation activity falls short of the necessary targets through a fragmented approach.

Figure 4 - Principles guiding the Council's approach to emission reduction

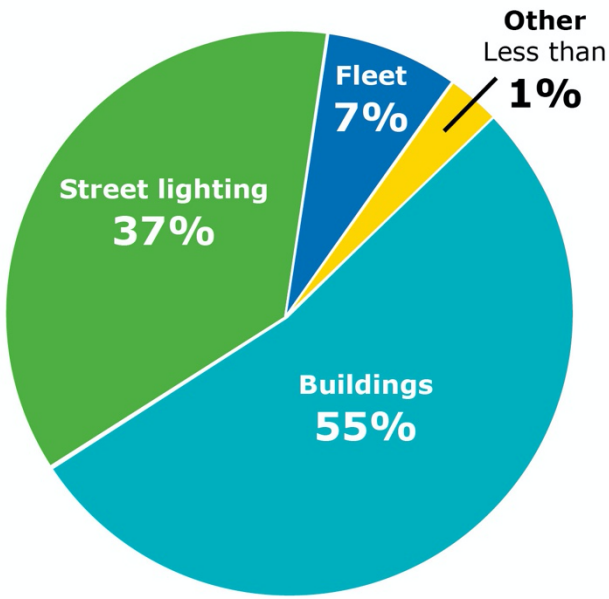
- Being evidence-led by improving our data, ensuring it is accurate and robust
- Positioning ourselves to be 'investment ready' in order to obtain grant funding where available, and utilising secured budgets to act as match funding to bring in additional funding – making our money work harder
- Ensuring that we consider cost per tonne of carbon reduced so that our investment decisions deliver the best result for the money spent with regards to carbon reduction (this is set out in the Greener Futures Finance Strategy)
- Taking a whole building approach, for example ensuring that we reduce energy demand through retrofit insulation prior to switching to electric powered heating (heat pumps) and/or installation of electric vehicle charging, increased electricity consumption is then offset by renewable energy generated through roof mounted solar
- Recycling operational energy savings resulting from the installation of decarbonisation measures in order to fund the wider net zero carbon programme
- Recognising that investment now into measure which reduce operational energy use will reduce longer term risks resulting from future rises in energy as well as possible future carbon pricing

- Where uncertainties lie with future corporate estate – prioritise decarbonisation efforts on buildings that we are most likely to retain
- Pushing for new builds to be as close to net zero carbon as possible to avoid future costs (retrofitting is more expensive and complex than designing in)
- Ensuring that our investments and the investment drawn into the county for the purposes of decarbonisation are used to develop green supply chains within the county
- Where offsetting is necessary, we will prioritise investment in local offset opportunities, such as woodland planting and/or landscape change to increase sequestered carbon

Reducing the Council's direct emissions by 2030

The Council's total carbon emissions in 2019/20 – i.e. its carbon emission baseline – was 18,833 tCO2. This is set out in Figure 5 below.

Figure 5 - Council's 2019/20 emissions baseline



In order to achieve net zero carbon by 2030 it is necessary to put in place a number of decarbonisation initiatives, which are set out in Figure 7 below. This includes LED lighting, energy efficiency measures, heat pumps and roof mounted solar PV in the corporate estate, decarbonising the fleet, installing LED streetlights and generating renewable electricity through ground mounted solar PV. The table sets out the emission reduction which will be achieved by each of these initiatives by 2025 and 2030.

This approach has been influenced by a number of considerations including:

- Existing opportunities to reduce carbon (i.e. the street lighting LED programme)
- Factoring in the impact of the estate rationalisation programme
- Opportunity to install solar photovoltaics on the Council's land and buildings (informed by the Buro Happold assessment)
- Considering the cost per tonne of carbon saved and identifying the package of measures with the greatest return on investment (informed by the Greener Futures Finance Strategy and work by Atkins)
- Considering when the investment needs to be made in order to secure the highest amount of carbon (for example front loading renewable energy measures is preferable as the national electricity grid is decarbonising)

The emission reduction that we are projected to achieve by 2025 against the baseline year is 69%. This exceeds the 40% emission reduction target for local authorities set out in the One Net Zero Public Estate programme.

By 2030 it is projected that 90% emission reduction will be achieved. This is because there will be some buildings where it is difficult and costly to decarbonise and some vehicles (for example fire engines) where the low carbon technology may not yet be available to the market. Where it is not possible to fully decarbonise, the Council will offset. We currently estimate a need to offset 10% of the Council's carbon emissions from 2030, however efforts will be. Made to reduce this. Figure 6 on the next page sets out the offset requirement from 2030 will be 1809 tonnes of carbon.

Figure 6 - Reducing the Council's direct emissions to net zero by 2030

Emission scope	Emissions baseline in 2019 (tCO2e)	% of baseline	**Number in scope**	**Decarbonisation initiatives**	**Means of implementation**	Emissions saved in 2025 (p/a, tCO2e)	Emissions saved in 2030 (p/a, tCO2e)	Emissions generated in 2025 (p/a, tCO2e)	Emissions generated in 2030 (p/a, tCO2e)	% reduction in 2025 vs 2019	% reduction in 2030 vs 2019
Business as usual savings						739	1302			4%	9%
Corporate estate (heating and electricity)	10,302	55 %	220 buildings	LED lighting in buildings	- £285k Grant funding for feasibility assessments of schools and corporate estate - £200k revenue feasibility funding for corporate estate - £1.6M capital government grant funding to decarbonise 5 SCC buildings - Further external funding opportunities and internal funding - Greener Futures Champion programme	285	269	4,484	2,694	**69%**	**89%**
				Estate rationalisation		961	1,821				
				Retrofit energy efficiency measures in buildings		1,083	2,349				
				Heat pumps in buildings		888	1,437				
				Rooftop PV installation		383	357				
Ground-mounted solar PV				3 solar farms with an estimated total installed capacity of 29.5 MWp	- Internal funding - Community energy groups - Community Municipal Bonds	2,218	1,375				

Fleet	1,313	7%	770 vehicles	Decarbonising Council's fleet	- Assessment of SCC fleet by EST - Green Fleet Manager recruitment - Development of a Green Fleet strategy, including switching fleet for EV and installing charging stations in SCC buildings	464	1,044	849	269		
Street lighting	7,043	37 %	89,000 lights	LED streetlighting	Ongoing programme to replace 89,000 streetlights, to be completed in spring 2023	6085	6642	958	401		
Total before offsetting						13,106	16,771	5,552	2,062		
Total	**18,833**[2]	**100 %**	Offsetting requirement from 2030 (p/a, tCO2e)			**2,062**					**100%**

[2] This figure includes fugitive emissions which make up less than 1% of the Council's baseline and therefore aren't included in the table.

The assessment of the Council's direct emissions does not yet include the emissions from future builds in the capital programme; rather, further work is required to assess the impact of these future developments, and to assess the cost and return on investment of developing these to be as close to net zero carbon as possible. This work is currently in train and will be completed by early 2022.

Reducing the Council's indirect emissions

The Council's indirect emissions fall outside of the scope of the 2030 net zero target; however these emissions are included within the scope of the One Net Zero Public Estate Programme in the Climate Change Delivery Plan. It is important that we set net zero carbon emission reduction targets to these emissions once the evidence base and opportunities for reduction are better understood. These are set out in Figure 7 below.

Figure 7. SCC's indirect carbon emissions

ONZPE objective	Decarbonisation of community schools
Baseline emissions (2019/20)	10,509 tCO_2e
KPI by 2025	Carbon reduction programmes in place
Description	Reducing carbon emissions through electrification of heat, energy efficiency, renewable energy and EV charge point instillation, and support school travel plans
Measures and activity	• Grant funding obtained to conduct decarbonisation feasibility assessments and investment grade assessments of 36 school sites - Sep 21 • Recruiting an Energy Engineer to support schools - Sep 21 • Explore setting up an interest free decarbonisation loan fund for schools (now Salix funding has terminated) • Conducting focus groups with schools to determine appetite for decarbonising sites and taking loan from SCC - Oct/Nov 21 • Recruited an FTE Eco Schools officer to support schools to embed environmental issues into the curriculum and influence behaviour change – Aug 21
Funding opportunities	• Supporting schools to access grant funding (YFS, Public Sector Decarbonisation (PSDF) funding (Dawney school has obtained £370k) • SCC to explore establishing a low/zero interest loan scheme for schools
Next steps and recommendations	Establish carbon reduction target for community schools following engagement and analysis of financial business case

ONZPE objective	Reducing Surrey LAs supply chain emissions
Baseline emissions (2019/20)	96,305 tCO_2e[3]
KPI by 2025	Green procurement policy in place and decarbonisation commitments embedded into all new and re-procured contracts
Description	Reducing emissions from procured goods and services by driving efficiencies, actively working with existing suppliers, and putting in place ambitious green procurement policies.
Measures and activity	• Green procurement working group established with B&Ds, successful bid to participate in LGA Design Challenge to develop Green Procurement framework - spring 21 • Green Procurement Manager recruited to lead on embedding carbon reduction and environmental benefits into contracts – June 21 • Carbon Trust quantify supply chain emissions based on spend data and identify categories with greatest carbon impact -Aug 21 • Questionnaires sent to top 25 suppliers with highest carbon impact requesting emission data – Sep 21 • Carbon reduction (aligning to SCC targets) embedded into Highway services re-procurement - Aug 21 • Green procurement policy developed and adopted by Surrey Local Authorities - 2022
Funding opportunities	Included within BAU
Next steps and recommendations	• Work with Surrey's highest emitting providers to generate an accurate carbon baseline and set emission reduction targets for each contract • Develop a category approach to carbon reduction for all new and re-procured contracts • Produce a Green Procurement policy which will include carbon emission reduction targets for the Council's supply chain emissions

[3] This figure is an estimate based upon best available data, officers will continue to work with the Council's supply chain to refine this.

ONZPE objective	Agile work force
Baseline emissions (2019/20)	Business travel – 1,800 tCO_2e Staff commuting – data not available
KPI by 2025	Carbon reduction targets for business travel and staff commuting are approved, sustainable travel policy in place
Description	Supporting staff to reduce workplace emissions such as staff commuting, business travel and energy savings
Measures and activity	• Atkins commissioned to produce Green Staff Travel Plan Policy (with focus on business travel and commuting) - April 21 • Workshops with officers in HR and FM to discuss opportunities and incentives – June 21 • Parking policy launched – late 21 • Greener Futures Champions Network (see Figure 3) launched to align with the Workforce for the Future Programme - late 2021 • Necessary infrastructure installed - TBC
Funding opportunities	
Next steps and recommendations	Green Staff Travel Plan policy to be launched with carbon reduction targets for business travel and staff commuting

HOW WILL WE KNOW THAT WE'VE SUCCEEDED?

Through regular monitoring: compared with carbon emissions estimates in 2019/2020, the Council's progress in reducing its direct and indirect carbon emissions will be reported to Council Leadership Team quarterly and publicly on an annual basis to align with the progress reports for the Climate Change Delivery Plan. The Council will continue to report direct emission reductions to Government. The 2030 target will be assessed by Internal Audit.

The Greener Futures Board: progress in reducing the Council's direct and indirect emissions will be overseen by the internal Greener Futures Board. The Executive Director for ETI sits on the Surrey Greener Futures Board to ensure that the connection exists between carbon reduction activities and opportunities at the Council and county level.

Two way communication: we will continue to seek input from the directorates through the Internal Greener Futures Board and attendance at Directorate Leadership Teams. We will also ensure the views of staff are gathered through surveys and webinars and that opportunities for staff to support and develop this agenda are created through the Greener Futures Champions programme.

Managing and minimising risk

There are a number of risks which could result in the Council being unable to achieve it's carbon reduction targets. These include risks around funding and finance mechanisms and policies from Government. Risks have been identified and have been included in a programme level risk register. Risk owners have been identified as well as mitigation strategies. Risks will be reported to the Surrey Greener Futures Board.

ANNEX 4- INITIAL GREENER FUTURES FINANCE STRATEGY 2021-25

1. INTRODUCTION

Surrey's Climate Change Strategy[1] was published in May 2020. Surrey's Greener Futures Climate Change Delivery Plan 2021-25 is the first phase of a 30-year plan to realise the ambitions set out in the Climate Change Strategy. The Greener Future Finance Strategy sets out a process for defining how the Delivery Plan for 2021-25 and subsequent plans will be financed, by who or how and where there are currently gaps in funding.

2. PURPOSE OF THE GREENER FUTURE FINANCE STRATEGY 2021-25

The objectives of the Greener Future Finance Strategy are to provide:

a) An initial ***best evidence-based estimated*** cost, based on current knowledge, data and modelling for the net zero pathways set out in Surrey's 2050 Climate Change Delivery Plan 2021-25 and SCC's 2030 target. Costs are based on an initial ***'net zero pathway model,'*** which includes relevant data, possible carbon reduction measures, cost and savings assumptions as well as potential funding and finance.

b) **A process for refining the 'net zero pathway model'** to confirm, as far as possible, best value measures, costs, funding/financing sources and return on investment for achieving the 2021-25 Delivery Plan and subsequently to be used to define future five-year delivery plans to 2050 and 2030 and their associated investment needs. The model needs to be flexible to allow for different measures if circumstances change

c) **An overview of funding sources and potential finance mechanisms available to fund the delivery** of the chosen pathway and more importantly **any funding gaps** that there may be. This is captured in Appendix 1.

d) **The basis of an evidence-based 'ask' of Government with regards to future funding and finance** where there are gaps

e) Enable the development of a **long term Greener Future Financing Strategy Framework – 2025 and beyond,** linked to the **Surrey Infrastructure Investment Plan** that can deliver at pace and at scale combining all possible sources of funding including the Government's Infrastructure Investment Bank and the private sector. (Date to be decided)

3. COSTING THE GREENER FUTURES DELIVERY PLAN 2021-25

SCC commissioned Atkins in July 2021 to produce a finance model that could be used by the Council and partners to estimate the cost of the carbon reduction initiatives included in the Climate Change Delivery Plan in order to understand the capital costs of achieve the county's carbon reduction target by 2025 as well as the 2030 carbon reduction pathway for the Council's own organisational emissions. The benefit of this model is that is creates a mechanism where carbon and cost

[1] https://www.surreycc.gov.uk/__data/assets/pdf_file/0003/225615/Surreys-Climate-Change-Strategy-2020.pdf

can be considered together, and for the financial impact of different carbon reduction scenarios to be tested. This allows the Council to make decisions regarding which decarbonisation pathways offer the highest carbon reduction for the best financial value.

A series of data sets were fed into the model, as set out in Figure 1 below. A number of parameters, assumptions and principles were used to inform the model and the costs have been based on best evidence available at the time as well as the use of industry standards. These assumptions are also captured in Figure 1. The model has been developed in a way which allows for future changes which could affect costs and potential return on investment, such as policy changes, energy price increases, carbon taxes etc. Further detail on principles, assumptions and evidence used will be in the full Atkins report which will be available at the end of October 2021.

Figure 1 – Data included in the finance model produced by Atkins

	2025 Delivery Plan	**Council's 2030 Net Zero Target**
Data included	- Surrey housing stock EPC data - Number of homes by tenure, type (ie number of fuel poor and off-gas homes) - Decarbonisation measures completed - Surrey Transport Plan data and evidence (number of journeys by different types of vehicles etc - List of commercial and public sector buildings - Carbon data from Boroughs and Districts - Details of schemes already in development (GHGLAD, LoCASE, Solar Together, Active Travel schemes, Bus Back Better, infrastructure schemes, green infrastructure schemes) - Carbon reduction data from Government's Scatter tool	- Energy data (cost per KWh gas and electricity) - Energy data for buildings in corporate estate - Data held on type and size of buildings - Data on existing decarbonisation measures installed - Number and type of vehicles in fleet and fuel data - Any decarbonisation feasibility assessment completed - Analysis on potential for solar PV on Council's land and buildings - SCC finance data (ie borrowing rate, discount rates)

Assumptions and estimations	-Energy retail prices - Source: Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal[2] -Carbon emission factors - Source: Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal[3] -Housing stock data- Source: BRE Integrated Dwelling Level Housing Stock Modelling and Database for Surrey[4] -For all projects, a staggered implementation over 4 years have been assumed, starting in 2022 and reaching to its full implementation in 2025. -Borough and District emission baseline: where baseline emissions data have not been found in the initial search, they are assumed to be 7,000 tCO2e (based on Woking Borough Council's emission inventory)	-Energy retail prices - Source: Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal - Building electricity and gas demand data - Source: Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal[5] -Inflation estimation - Source: Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal[6] -For all projects, a staggered implementation over 9 years have been assumed, starting in 2022 and reaching to its full implementation in 2030. -Where gross internal area (GIA) information is not available for a building: its GIA have been assumed by comparing its energy consumption with the energy consumption of a similar type of building. 5

Using these parameters and assumptions, Table 1 below identifies the approximate capital cost of achieving each of the four main programmes within the Climate Change Delivery Plan.

Due to the complexity of the task, and the fact that many of the initiatives in the Delivery Plan have not been fully developed, it has been necessary to apply a confidence range which allows for varying levels of confidence in the costs to be captured. A confidence range of 10% has been used for all of the programmes with the exception of Greener Futures Champions where 20% has been applied. This is because the initiatives within this programme are less well developed than the initiatives in the other programmes, and the Council has less direct control over the delivery of these. As officers continue to develop the Delivery Plan and the initiatives within it, these confidence ranges will reduce.

[2] https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal
[3] https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal
[4] This is an unpublished resource which was produced by BRE for Surrey County Council in 2014
[5] https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/november2019

Table 1 also summarises the sources of funding for each of the programmes and identifies where there may be gaps in funding. Appendix 1 includes a list of the initiatives (only those with capital costs have been included) making up each programme within the Delivery Plan. Against each of the initiatives, further detail has been included about the anticipated funding sources, need for SCC investment, potential funding gaps and need to lobby Government.

Figure 2 - Summary capital costs of the Climate Change Delivery Plan 2021-25

Climate Change Delivery Plan Programmes	Start	End	Capital expenditure (confidence range applied)	Comment (expected sources of funding and possible gaps)
Greener Future Communities	2021/22	2025/26	£3.1 - £3.9 billion	This programme focuses on decarbonising homes, buildings and transport and so the estimated costs far exceed the other programmes. The majority of these costs will be funded by the consumer (ie home owners, businesses decarbonising homes and premises and drivers switching to EV vehicles) however some SCC funding will be required to unlock investment and act as match funding to draw in large grants from Government and other funders. The main risk is that external funding is not available at the scale required to meet our carbon reduction targets for this programme.
One net zero public sector estate	2021/22	2025/26	£129 - £142 million	This includes the capital costs of the 2030 net zero carbon programme. The majority of this cost will fall to Surrey's local authorities with some Government grant funding expected. The operational energy savings resulting from decarbonisation measures are expected to create a positive business case over the lifetime of the measures
Build Back Greener	2021/22	2025/26	£101 - £110 million	Further work is required to develop the initiatives in this programme in order to understand the potential costs and funding sources. It is likely that Government's Infrastructure Investment Bank will make available funding however this has only recently been launched and so is untested. The presumption should be that in the future new infrastructure will build in 'carbon mitigation' as part of BAU.
Grow Back Better	2021/22	2025/26	£8 to 10 million	Although currently relatively low value, new and emerging policies and finance mechanisms resulting from the Environment Bill will result in increased opportunities to deliver natural capital schemes which increase carbon sequestration and will provide the funding mechanisms for these (such as

				mandatory Biodiversity Net Gain requirements which developers must meet which will function like an offset fund). In the interim costs will fall to land owners for capital measures and maintenance.
Total			**£3.4 - 4.2 billion**	

The scale of cost required to achieve the county's carbon reduction target by 2025 is in the region of £3.4 - £4.2 billion. The majority of this cost is within the Greener Futures Communities programme and the costs will fall to the consumer (i.e. homeowners decarbonising their homes, businesses decarbonising their premises and drivers switching to low emission vehicles). The next step in this work is to determine where the Council's funds are best placed to draw in the scale of investment required and where Government lobbying is required. This is covered in more detail in section 5 below.

Revenue costs and common costs across the programmes (such as communications costs) have not yet been estimated. The focus to date has been on capital costs, as this will represent the majority of the investment required (although revenue costs are expected to be substantial and will need to include additional and on-going maintenance requirements resulting from initiatives). Firming up related revenue costs will be a key next step in this work. Work has already started on this now that the draft Delivery Plan has been developed and it's clear what the priority initiatives are.

4. COSTING THE COUNCIL'S 2030 NET ZERO CARBON TARGET

Officers have also been working with Atkins on a finance model for the Council's 2030 net zero carbon target. This has been developed using a similar methodology to the wider 2025 financing work referenced above. As set out in Figure 1 above, data on the Council's operational building portfolio, vehicle fleet and analysis of the potential for renewable energy generation was fed into the model along with a number of assumptions (based on best evidence) regarding energy price increases, operational savings, borrowing costs etc. Further detail on the methodology used will be included in the full Atkins report.

Table 2, below, includes a summary breakdown of the expected capital costs to meet the 2030 target. These costs are included in the table above within the One Net Zero Public Estate programme.

Figure 3 – Capital costs of decarbonisation measures required to achieve the Council's 2030 net zero carbon target

Project name	Start	End	Lifetime capital spend (confidence range applied)	Financing including grant funding secured
Estate rationalisation	2022	2030	£-	
LED (Buildings)	2022	2030	£4.75 - £5.25m	Expected to pay back - providing a return on investment
Energy efficiency measures e.g insulation, double glazing	2022	2030	£27.5 - £30.5m	Measures unlikely to payback by themselves however are crucial in order to minimise heat and electrical consumption.
Estate heat pumps	2022	2030	£7.6m - £8.4m	£1.6m Public Sector Decarbonisation Funding secured and a further bid for £4.5m is pending a decision.
Rooftop PV Installation	2022	2030	£5.7m - £6.3m	Expected to pay back – providing a return on investment
Ground-mounted PV Installation	2022	2030	£14.3 - £15.8m	Expected pay back – providing a return on investment (subject to infrastructure (ie connection) costs which have been excluded as they can vary considerably.
Green Fleet	2022	2030	£4.3m - £4.7m	Financing models being explored, savings from energy costs and road tax.
Total			**£65m - £71m**	

The capital costs of the Council's 2030 net zero carbon programme is estimated to be between £65–71m. This table also includes the capital costs of the relevant decarbonisation initiatives with a confidence factor of 10% applied to recognise that further work is required to firm up these figures. This cost to the Council will be reduced by grant funding (£1.6m has currently been secured through the Public Sector Decarbonisation Fund (PSDF) with a further bid worth **£3.2m** submitted

to PSDF Phase 3. It is expected that the capital costs will be offset over the lifetime of the measures through operational energy savings and energy generated by renewable energy installations however more work is required by officers to confirm this and this is included in the next steps below.

5. GREENER FUTURES INVESTMENT PRINCIPLES

The following principles will help to guide the Council and its partners in making investment decisions for the purpose of decarbonising the Council by 2030 and the wider county by 2050.

- Outside of the Council's own estate and services, the presumption will be that the role of the Council is to **facilitate finance and funding** in most instances, rather than pay for measures outright e.g. where possible we will ensure that the Council's investment has a positive pay back for example through exploring development of low or zero interest loan funds to target sectors (ie schools, SME businesses, private landlords). We will seek opportunities to cover the cost of the interest through partner contributions and council tax rebate schemes.
- We will look to be more efficient to reduce costs and carbon as well as employing new technologies. Wherever possible, we will engage with the market to ensure we are able to access the most up to date technology and approaches.
- We will consider the cost per tonne of carbon reduced so that investment decisions deliver the best value for money per carbon reduction as part of a 'business case approach' which factors in things such as energy savings, potential income and decreased maintenance
- In order to minimise the pressure on the Council's capital borrowing, we will endeavour to **rely as much as possible on external funding wherever possible**.
- Where grant funding is not available, we will explore **innovative and emerging forms of investment** where there is a business case and any risks can be effectively and robustly managed.
- We will ensure that our investments and the investment drawn into the county for the purposes of decarbonisation are **used to deliver wider benefits** such as green supply chains, green jobs within the county, improved health and well-being, increased biodiversity and nature recovery.
- We will recognise that investment now into measures which reduce operational energy use will reduce longer term risks resulting from future rises in energy costs as well as possible future carbon pricing.

6. HOW WE ARE GOING TO FUND THE CLIMATE CHANGE DELIVERY PLAN

The scale of the challenge ahead is vast and therefore it is important to be cognisant of the limits to the Council's own resource and financing. The priority for the Council's investment is first and foremost the 2030 target, but where possible we will use our finance to leverage and enable the financing of the 2050 programme. Based on this approach and the above principles, it is proposed to finance the Climate Change Delivery Plan (to 2025) and 2030 net zero pathway in the following ways:

- Utilising our existing relationships with partners, we will **bring together relevant stakeholders to co-ordinate joint funding bids and finance approaches**. An example of where we've been particularly successful in this way is the Green Homes Grant Local Authority Delivery Fund (GH GLAD), which is summarised in Figure 5 below.
- The Council's own funding will be prioritised where it can **best leverage the necessary investment from other sources** (such as public, private and community sector investors), focussing our investment in areas where carbon reduction is most required and where other forms of financing are currently not available. This will help to stimulate investment markets in these sectors. This could include loan funds for the private rented sector, community investment and other examples, which are covered in more detail in Figure 4 below.
- The Council will stay abreast of funding opportunities and ensure that we are 'investment ready' having a pipeline of costed evidence-based projects so that we are able to respond to grant funding deadlines.
- The Council's investment in its 2030 programme will be as sustainable as possible seeking **decarbonisation opportunities with the greatest return on investment**
- Wherever possible, **external funding will be used to fund these measures**, and where this is not possible, **existing budgets will be used and reprioritised** where necessary (such as the Capital Facilities Management Budget).
- In some cases, **additional Council investment has been identified in the Medium Term Financial Strategy (MTFS) capital pipeline**. This funding will be subject to business cases that will be taken through on a project by project basis through the Council's capital decision making process.
- We will invest in fully decarbonising buildings (taking a whole building approach) in recognition of the fact that some necessary decarbonisation measures will not pay back the cost through operational savings. For example, it is important that we reduce energy demand through retrofit insulation prior to switching to potentially more expensive, but less carbon intensive electric powered heating (heat pumps) and/or installation of electric vehicle charging, increased electricity consumption is then offset by renewable energy generated through roof mounted solar.
- In order to deliver at the speed and scale required, it will be necessary to recruit **additional officer resources within relevant services** (including, but not limited to; Greener Futures, Transport, Economic Development and Communications) as well as including consultancy costs to develop schemes and initiatives. It will also be necessary to develop expertise in key areas, including:
  - Bidding for grant funding
  - Finance
  - Behaviour change and engagement
  - Data and carbon quantification

  These resource requirements are currently being built into internal budget setting processes, including the MTFS revenue budget, Transformation fund and Feasibility fund.

Figure 4 – Funding and financing opportunities, as at October 2021

2025 Delivery Plan		**Council's 2030 Net Zero Target**	
Green Investment Bank	The Government is in the process of developing a taxpayer-backed Green Investment Bank (GIB) to help fund technologies and infrastructure needed to reach the UK's 2050 net zero emissions target. Details on how the GIB will function are not yet available.	Public Sector Decarbonisation Fund (PSDF)	Government's PSDF is a competitive funding stream which provides capital investment for public sector organisations to decarbonise their buildings. The fund prioritises the installation of heat pumps and covers the additional cost of converting end of life boilers to heat pumps (the like for like cost is covered by the public sector organisation), additional measures such as insulation and solar can be included within the bid provided the cost per tonne of Carbon saved doesn't exceed £350tCO2e. To date £1.6m has been secured with a pending bid of £4.5m.
UK Shared Prosperity Fund (UKSPF) Investment Framework	The UKSPF has been designed to replace the EU Structural and Investment Funds (including the ERDF – below). It is due to be launched in 2022.		
GHGLAD	See details below in Figure 5. The Council and partners have secured **£15m**	Salix Loan Fund	This fund provided £13m interest free loan to part fund the LED street light conversion. Salix has now ceased public sector loan products.
Active Travel Fund (DfT)	Government's Active Travel Fund provides Local Transport Authorities with funding for walking and cycling facilities. The Council has secured £7.3m for active travel infrastructure with a bid for a further £8.2m pending.		
European Regional Development Fund	This funded the LoCASE programme which offers grants to SME businesses for energy efficiency and decarbonisation measures. Approximately £3.5m has been secured for delivery in Surrey. The ERDF is now closed to UK applicants.		
Biodiversity Net Gain (BNG)	Included in the Environment Bill, BNG is a mandatory requirement for developers to leave biodiversity in a better state than before development or be required to purchase		

	BNG units which can be used by landowners to fund biodiversity interventions elsewhere. BNG units are currently estimated to cost £15k and developers are required to commit to funding over a 30 year period.		
Carbon offset fund	The carbon offset market in local natural capital is expected to increase rapidly. Currently the only financial offset product which the Council can make use of is Government's Woodland Carbon Code, which provides an annual revenue payment for woodland which is planted in accordance with the fund requirements.		
Environment Land Management (ELMS)	ELMs is a new scheme which financially incentivises farmers and landowners to deliver environmental land management. ELMS includes; Sustainable Farming Incentive Local Nature Recovery Landscape Recovery		
Subsidised, council backed loan schemes	The Council will explore creating low and zero interest loan schemes for sectors where there are currently funding gaps (such as schools and private rented dwellings).		
Bulk buying schemes	Cost savings can be achieved through bulk purchasing (through economies of scale) and these can be passed onto the consumer to incentivise uptake of decarbonisation measures. This is the mechanism used for the Solar Together scheme where residents have been able to access roof mounted solar at subsidised prices.		
Community investment opportunities	There is a growing market of community investment schemes for decarbonisation measures. One model is the use of Green Council Bonds, where residents act as community investors investing in local schemes with a guaranteed return on investment (such as solar on schools). Another model is community owned energy schemes. The Council has recently		

	launched a Community Energy Pathway scheme to support community groups to develop and finance their own schemes.		

Figure 5 – Green Homes Grant Local Authority Delivery (GHG LAD)

The Green Homes Grant Local Authority Delivery scheme is a Government grant funding initiative which aims to provide financial support to low income households through decarbonisation measures (including insulation, heat pumps and solar) which are intended to reduce fuel bills at a time when energy prices are increasing rapidly. In October 2020 the Council allocated £750k in match funding to support a consortium bid with ten of the boroughs and districts and was successful in bringing in £6m capital grant funding. This funding has been delivered to X households and subsequent tranches of funding have been awarded to a Surrey consortium, which the Council is leading as co-ordinator.

7 – NEXT STEPS

1. Further work is required to develop the 2030 finance model in order to confirm the operational savings which can be achieved to determine whether the programme is expected to have a positive payback over the funding period (to 2050).
2. Officers will continue to develop the initiatives within the Climate Change Delivery Plan which will enable more accurate costings to be developed in the 2025 Delivery Plan finance model.
3. Officers will develop the revenue costs required for both the 2030 finance model and the Delivery Plan to 2025.
4. Officers will continue to build capital and revenue costs into the Council's budget setting processes
5. Officers will continue to develop the Council's lobbying strategy to reflect the financial pressures which are required to meet Surrey's carbon reduction targets.

APPENDIX – GREENER FUTURES CLIMATE CHANGE DELIVERY PLAN FUNDING TABLE

Ref.	Initiative name	Main funding mechanism	Description/ status	Existing funding mechanism	Gap/issue	Requires lobbying	SCC (capital) funding required	Possible SCC funding model
Greener Future Communities								
1.1	Vulnerable & fuel-poor households	Government's Green Homes Grant Local Authority delivery GHGLAD	**£15m** secured in 2021/22 to decarbonise fuel poor housing. SCC administering funding	Y	To decarbonise target number of fuel poor homes requires significant investment from Government as well as policies to require homes to decarbonise	Y	No	N/A
1.2	Social housing decarbonisation fund	Gov grant funding administered by SCC (ie Social Housing Decarbonisation Fund)	This funding source has been confirmed by Government however details of fund not yet available	Y	To decarbonise target number of social housing requires significant investment from Government as well as minimum energy standards for social housing providers	Y	No	N/A
1.3	Decarbonising private rented dwellings	SCC low/zero interest loan fund to stimulate market	Low/zero interest loan scheme funded by SCC capital borrowing (explore covering cost of interest through empty homes council tax allocations)	N	SCC loan fund fills a finance gap however it cannot provide full quantum of finance required	Y	Y	Low/zero interest loan scheme funded by SCC capital borrowing

1.4	High-carbon communities programme/Off-gas grid homes	Government's Home Upgrade Grant (HUG	HUG targets switching homes in off-gas communities from oil and electric heating systems to heat pumps. SCC will administer	Y	To switch target number of off-gas homes to heat pumps and add additional insulation and PV measures will require more investment than is available through the scheme	Y	Y	HUG grant funding can be topped up with SCC low/zero interest loan fund
1.5	Solar for able to pay homes	Surrey Solar Together programme	Scheme offers subsidised solar (achieved through economies of scale resulting from bulk purchase) to home owners	Y	None	N	N	
1.6	Workplace emissions and clean growth	LoCASE	Low Carbon in the South East is an EU funded programme (administered by SCC) which offers grants to SME businesses for energy efficiency and low carbon measures	Y	This scheme is funded until 2023, after which the UK is not eligible to EU funding. We will require Government to make alternative funding sources available	Y	N	
1.7	Provide secure cycle parking, bike hire and promotion of electric cargo bikes.	TBC	TBC	N				
1.8	*Implement the Bus Improvement Service programme.*	*Bus operator contributions and SCC capital*	*SCC's bus back better scheme offers bus operators grant funding (which they have to match) in order to upgrade bus fleet serving Surrey routes to zero emission vehicles*	*Y*	*None*	N	Y	£40m of SCC capital has been allocated as match funding
1.9	Expand and promote the use of EV car clubs.	Funded through car club contracts	SCC has a concessions contract with car club provider (currently Enterprise)	Y	None	N	N	

Ref	Initiative name	Main funding mechanism	Description/status	Existing funding mechanism	Gap/issue	Requires lobbying	SCC (capital) funding required	Possible SCC funding model
One Net Zero Public Estate								
2.1	*Streetlight LED replacement*	*SALIX Finance loan*	***£16.1m** secured though zero interest loans from Salix and EM3 LEP secured and matched with SCC investment*	*Y*	*None*	N	Y	Council allocated **£3.8m** and repaid the loans from energy savings
2.2	Building retrofit of insulation, low carbon heating and PV	Public Sector Decarbonisation Fund (PSDF)	**£1.6m** secured and **£3.2m** bid submitted (confirmation 2022)	Y	PSDF funding is competitive, funding is not guaranteed and there are not sufficient sums	Y		SCC to fund the like for like replacement costs of heat pumps and the
2.3	Fleet replacement	SCC investment	Service budgets	N/A	Service budgets will be required to fund vehicle replacements at end of life however zero emission vehicles may be more expensive (unless whole life costs are considered)	N	Y	Costs covered through service budgets and possible uplift to accelerate switch
2.4	Ground-mounted PV project	SCC investment	Capital borrowing will be repaid through energy generation (either sleeved to offset SCC	N/A	None	N	Y	£15m is currently in the Capital pipeline

			electricity demand or sold via private wire)					
2.5	EV charging on public sector estate	SCC investment	Capital borrowing will be repaid through sale of electricity to users	Y	None	N	Y	Include in wider EV concessions contract
2.6	Boroughs & Districts 2030 Net Zero targets	Borough and District investment	Capital borrowing will be repaid through operational energy savings over lifetime of measures. Grant funding (PSDF) will reduce capital pressure	Y	Boroughs and districts may require support in developing business case for 2030 target and for feasibility assessments	Y	TBC	
2.7	Decarbonising other public sector buildings (which fall outside 2030 target)	Public sector investment	Capital borrowing will be repaid through operational energy savings over lifetime of measures	Y	None	N	Y	SCC to finance decarbonisation buildings in its portfolio
2.8	Decarbonising community schools	Grant funding (PSDF) and loan scheme (funded by SCC capital borrowing)	SCC is not responsible for payment of the energy bills of community schools and so investment in decarbonisation will need to be offered as a low/zero interest loan which the school repays through energy savings	Y (grant) N (loan)	None	N	Y	SCC to explore creation of a low/zero interest loan product for schools
2.9	Greener Future Staff Travel Plan	SCC capital borrowing (inc Bus Back Better)	Reducing staff reliance on driving to work and encouraging mode shifts requires some infrastructure (ie EV shuttle buses from hubs to	Y	None	N	Y	SCC capital borrowing and developer contributions through CIL and S106

Ref.	Initiative name	Main funding mechanism	Description/status	Existing funding mechanism	Gap/issue	Requires lobbying	SCC (capital) funding required	Possible SCC funding model
Build Back Greener								
3.1	Implement of a pipeline of place-making project	Government funding	Further work is required to develop these place making projects in order to understand costs and finance sources	N	Uncertainty around availability of Government funding	Y	Y	Capital funding as potential match funding
3.2	Incorporate the key features of 20 minute neighbourhoods set out in the draft Surrey Local Transport Plan.	Government funding	Further work is required to develop these place making projects in order to understand costs and finance sources	N	Uncertainty around availability of Government funding	Y	Y	Capital funding as potential match funding
3.3	Maintain and improve walking and cycling infrastructure as set out in the draft Surrey Transport Plan (LTP4).	Government funding - Active Travel funding (DfT)	**£7.3m** has been secured to date for active travel infrastructure with a further pending bid worth **£8.2m** and the potential of further bids resulting from Local Cycling and Walking Infrastructure Plans (LCWIPs)	Y	Active Travel funding is competitive and the quantum of funding required is not currently available	Y	Y	Capital funding as potential match funding
3.4	Roll out EV charge point infrastructure.	Concession contract (provider pays)	The Council is in the process of developing a concession contract. The successful provider	N	The Council is responsible for rolling out EV infrastructure to meet the	N	N	N/A

			will cover the cost of the infrastructure in return for income from energy sales		demand from ban on sale of new petrol/diesel vehicles			
3.5	Support a telecommunications upgrade	TBC	TBC	N		TBC	TBC	

Ref.	Initiative name	Main funding mechanism	Description/status	Existing funding mechanism	Gap/issue	Requires lobbying	SCC (capital) funding required	Possible SCC funding model
Grow Back Greener								
4.1	Facilitating the planting of 600,000 trees (or equivalent) by 2025	Government's carbon offset investment - Woodland carbon code and grant funding	We will explore opportunities to fund planting of trees and hedgerows utilising Government's carbon offset funds and grant funding	Y	The woodland carbon code requires minimum areas of 10 ha, this is difficult to achieve in Surrey due to constraints and so smaller areas would unlock the required investment	Y	Y	Capital funding to act as match funding to draw in larger sums of grant funding
4.2	Implement the Environmental Land Management (ELMs) programmes	Government's Farming in protected Landscapes	Funding (replacing the EU Agriculture agreements) to support farmers and land owners to prioritise environment and	Y	The quantum of funding required is not currently available	Y	N	

		fund (administered by SCC)	carbon sequestration on their land					

ANNEX 4
GREENER FUTURE MEMBER REFERENCE GROUP | RECOMMENDATIONS

The Surrey Climate Change Delivery Plan 2020-25 must:

1. Recognising the Climate Emergency, be ambitious about Surrey County Council taking the lead in delivering net zero for the Council by 2030, within a 1.5-degree temperature rise, and for Surrey as a whole by 2050, but recognising that this is not achievable without Government intervention and lobbying Government for policy, strategy and funding support

2. Have clear milestones each year for the next five years, ensuring immediate action as well as mid- and longer-term actions for both the Council's own emissions as well as the emissions produced within the county.

3. Be clear on cost and how the Council's 2030 net zero target and the first five years of the county's climate change delivery plan are going to be funded or financed with a clear financing strategy, setting up new finance mechanisms and appropriate levels of resourcing where appropriate.

4. Have a strong, targeted and well-funded communications and engagement strategy focused on ensuring engagement of those who will be vital to effecting change including – public sector senior decision makers, Members, residents, communities, business leaders and Government.

5. Be supported by a comprehensive lobbying strategy, linking with relevant partners, recognising that without others, in particular Government and business, achievement of the Climate Change Strategy and Delivery Plan targets will not be achievable.

Surrey County Council must LEAD, in particular, through the following:

Leadership from Members and senior officers:

- A virtual green conference or all Members seminar led by the top level to ensure buy-in, supplemented by regular engagement and support for Members to understand key challenges, targets and to utilise their local contacts and networks, together with tools to enable calculation of carbon emissions for comparison of actions/products.

- A cross party motion to the Council to adopt a Green Charter in support of our Greener Futures ambitions, including a commitment to "Digital by Default" (see below).

- Digital by Default: The Council must commit to and follow through on digital by default principle, subject to legal constraint, to support its own climate change delivery plan and help reduce carbon emissions. Therefore, as a starting point, all non-decision-making meetings must take place online without any excuse,

particularly the Select Committees, which do not make formal decisions and should not be treated like the executive and regulatory arms of the council that have to make formal business and quasi-judicial decisions. Unfortunately, current legislation prevents this from happening. The Council should therefore lobby strongly – citing the Welsh Government/Local Government example - Written Statement: Implementation of the Local Government and Elections (Wales) Act 2021 (22 March 2021) (22 March 2021) – to seek relaxation from the Ministry of Housing, Communities & Local Government so that local authorities can help achieve the Government's own legislation, namely new target in law to slash emissions by 78% by 2035. Such a change will assist the Council's wider climate change delivery goals and targets as set out in its own Climate Change Delivery Plan. These representations should be made both directly by Surrey County Council and through the County Councils' Network (CCN) chaired by the Leader.

- Appointment of Member and Senior Manager Champions to advocate and embed the principles within the Green Charter.

1. Promoting sustainable travel options:

- Environmentally friendly and frequent bus service across Surrey – including evenings and weekends - that provides better value for money for passengers.
- Bookable on-demand Woodhatch electric mini-bus service, available to all, from the two local train stations to Woodhatch Place.
- Council support for sustainable travel: car share scheme, cycle to work scheme, electric cars, electric bikes etc. for residents, members and staff. Showers, changing facilities, cycling stands and EV points across Surrey, including all council buildings.
- Promote electric vehicles, sustainable infrastructure and electric charging points. Ambitious programme with financial backing to support Electric Vehicles (EVs) and corresponding infrastructure across Surrey including in all council buildings and any jointly run facilities.

2. Reducing the impact of meetings and services:

- Catering and other facilities at all SCC buildings – replacement of single use plastics or cups and environmentally damaging utensils and items - to have food purchase and food waste policy for all council buildings and schools.

3. Education and Awareness:

- An easy-to-understand communication and engagement programme for members, staff, schools, colleges, partners and residents.
- Reaching out to residents in innovative ways such as Peoples Assemblies .

4. Policy and Strategy:

- To work in partnership with boroughs and districts to produce or update relevant guidance to help embed planning policies consistent with net-zero targets and to ensure that all relevant local authorities reflect the same target and the same/similar climate change messaging or a common tag-line.
- Appropriate and possible financial support, subsidy or co-operative loan schemes for green initiatives and to increase take up for residents, not just for businesses, for solar panels, heat pumps and electric vehicles etc.
- Inclusion of businesses, education sector (including private schools and academies) and other influential organisations to get a wider buy-in.
- New buildings/homes and the carbon offset fund – to review the extent to which developers should pay into a carbon offset fund if their developments are not future-proofed to be net zero carbon.
- Specific support for low-income families and being mindful of equality/impact implications.

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