

Surrey's
Greener
Future

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SURREY COUNTY COUNCIL'S NET ZERO 2030 PROGRESS REPORT

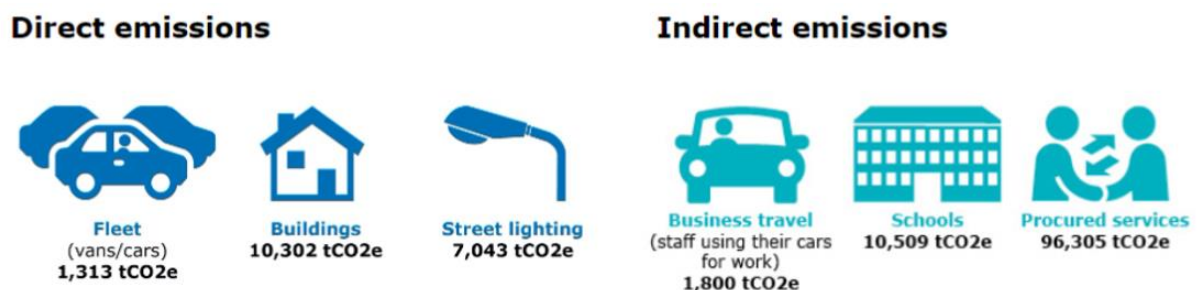
November 2022

SURREY COUNTY COUNCIL'S 2030 NET-ZERO CARBON PROGRAMME

Surrey County Council (SCC) has committed to becoming a net-zero carbon organisation by 2030. Although the council's emissions¹ represent less than 1% of Surrey's emissions, Surrey County Council and other local authorities, have a vital leadership role to play. Therefore the net-zero 2030 programme is a key action within the Greener Futures Climate Change Delivery Plan 2021-2025. This report sets out our progress since the net-zero 2030 programme was agreed in October 2021ⁱ. **Our aim is to achieve a 40-69% reduction in Surrey County Council's emissions by 2025²**; as a steppingstone to becoming net-zero by 2030.

The net-zero 2030 target mostly consists of energy used in buildings, streetlighting and vehicles owned and operated by the Council. The rules that govern greenhouse gas accountingⁱⁱ mean that buildings no-longer in the Council's ownership are removed from the target which is then re-baselined. **The closure of County Hall and purchase of Woodhatch Place has reduced Surrey County Council's baseline and net-zero target emissions by 600 tonnes³ a year.**

Figure 1: Council emissions in 2019/2020



As well as emissions that we can directly control we are also focusing on emissions that are generated indirectly such as by schools; procurement of goods and services; and actions carried out on behalf of the Council by their staff, such as business travel and staff commuting. **Progress against these indirect emissions cannot yet be accurately measured, but plans to improve our measurements will be put in place next year.**

¹ "Emissions" or "carbon" refers to greenhouse gas emissions that cause global warming.

² The lower end of the range represents a 40% emissions reduction by 2025 in line with the target set out in the Greener Futures Climate Change Delivery Plan 2021-2025. The upper end of the range shows the fastest potential progress, based on the most optimistic scenario to deploy for renewables, retrofit and fleet decarbonisation on Surrey County Council's estate.

³ Our net-zero target has reduced from 18,833 to 18,232 tonnes of emissions

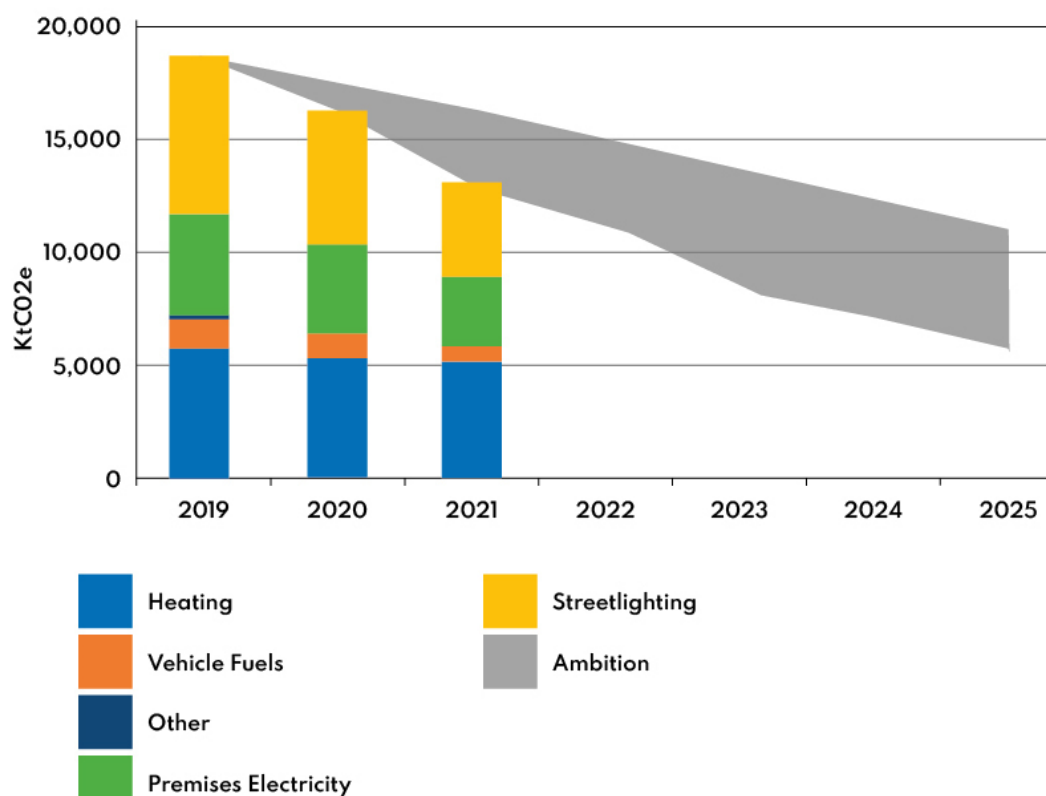
PROGRESS AGAINST SURREY COUNTY COUNCIL'S 2030 NET-ZERO TARGET

OVERALL PROGRESS

The SCC target for April 2022 was an emissions reduction of between 20% and 33% compared to emissions produced in 2019/2020. **By April 2022 Surrey County Council had achieved a 27% reduction, which places us on track to meet the 2030 net-zero target.**

However, there is a risk that emissions reductions may not be sustained over the next few years due to much of the reduction being the result of a change in behaviour patterns of staff due to Covid-19 restrictions. It is too early to measure the impact of key estate and fleet decarbonisation programmes which are expected to deliver a more sustainable mitigation. That said, it may be necessary to increase renewable energy generation on SCC sites if there is a slow-down of the transition of the UK electricity grid away from fossil fuels to renewable energy to meet our 2030 net-zero target.

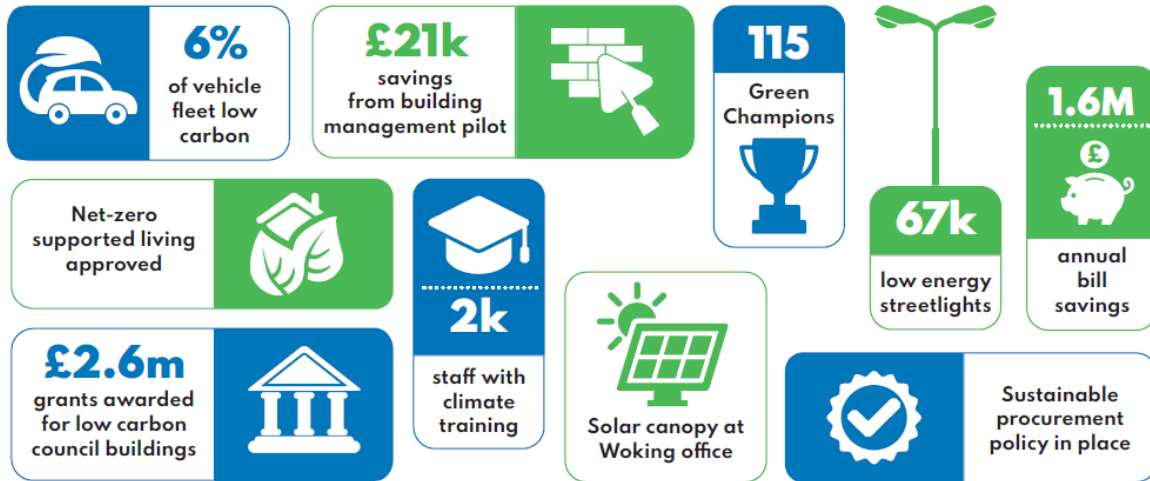
Figure 2: Net-zero emission reduction from 2019/2020



PROGRESS OF KEY INITIATIVES

This section sets out the main actions that have been taken forward to date.

Figure 3: Summary of achievements



PROGRESS AGAINST ACTIONS TO TACKLE DIRECT EMISSIONS

STREETLIGHT LED REPLACEMENT

The streetlight LED replacement programme has achieved a 40% reduction in emissions and has replaced 76% of the 89,000 streetlights with lower impact lighting. The £20M investment is now delivering an estimated annual fuel bill saving of £1.3M⁴. Following the end of the programme in 2023, options to further reduce emissions from streetlighting are being considered.

Programme	Progress summary	Risks, issues and mitigation
Streetlight LED replacement (Green)	LED programme is on track to complete by 2023 and is currently saving 4.4 tonnes of carbon in 2021/2022, a 40% reduction compared to 2019/2020.	Close working with the suppliers of key components is reducing the risk to the supply of essential electronic components due to Covid-19 and increased costs.

⁴ All estimated fuel bill savings were undertaken before the increase in energy bills, and are therefore likely to be underestimates.

BUILDINGS AND RENEWABLES

Emissions from electricity and gas have reduced by 15% and 35% respectively, mainly because the carbon intensity of electricity⁵ is reducing and impacts of Covid-19 mean that less energy was consumed. The retrofit and renewables programmes are still at an early stage; delivering emission savings estimated to be around 2% so far. However, completed projects are not yet reflected and are likely to deliver significant benefits. A strong pipeline of projects is being developed, including large-scale solar projects, which is broadly in line with our most ambitious net-zero trajectory.

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Programme	Progress summary	Risks, issues and mitigation
SCC estate retrofit programme (Amber)	To date 21 buildings have had investment grade proposal surveys (IGPs) to determine the business case for decarbonisation, with funding allocated to survey a further 30 buildings. 6 buildings have had heat pumps, insulation and solar PV installed (fully funded). A further £2.6M grant funding has been awarded for 15 buildings and an additional bid for £6M of grant funding for 26 buildings has been submitted. In addition to grant funded measures, officers are developing business cases for roof mounted solar schemes and will start to develop other quick-win energy saving schemes. A pilot of Gridedge (building management system utilising Artificial Intelligence) at Consort House saved £21k	Grant funding is time restricted. Officers are ensuring the FM outsourcing contract can reduce future timescales by removing the need to procure managing agents and installers. The cost of materials are currently increasing rapidly due to international pressures, however this is offset by the increase in energy unit costs which will increase the financial savings from installing the proposed measures.

⁵ The “carbon intensity of electricity” refers the average amount of carbon that is released to produce a unit of electricity in the grid. The carbon intensity has reduced due to the increase in low carbon electricity production such as wind, solar and biomass.

	<p>over the first six months, and this system will be rolled out in 4 other high energy consuming buildings, which should save a further £155k p/a, this will be delivered alongside the Energy Management Task Force.</p>	
<p>Renewables (Green)</p>	<p>11 sites have been shortlisted from the original 77 sites with potential for a ground mounted solar PV farm array. Officers are currently engaging with the Distribution Network Operator to determine suitability of connection to the grid. Once this is completed the design and business case stage will begin. It is envisaged that construction will start in the next financial year. A turnkey solar installer is currently being procured to install solar on SCC rooftops and school roofs.</p>	<p>Once sites are selected, development may be stalled by the planning process, the grid connection of the electricity supply or increased costs of essential materials or skills. Initial feasibility work is being conducted to reduce risks.</p>
<p>New build design standards (Green)</p>	<p>New build policy is being developed with a view to finalise and fully implement the policy in the next financial year. The independent living net-zero pilot has been approved by Cabinet, which is likely to massively reduce the bills of vulnerable occupants.</p>	<p>The additional up-front cost of sustainability requirements combined with increased cost of materials may have a knock-on impact on the number of projects that can be taken forward.</p>

FLEET DECARBONISATION

Reductions in emissions from SCC vehicles were 48% in 2021/2022 compared to 2019/20, due to the Covid-19 lockdowns restricting all but essential business travel. Increases in emissions in subsequent years are expected until the fleet can be replaced with low carbon alternatives. It is too early to measure the impact of the fleet decarbonisation programme aided by the installation of new fleet-management software.

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Progress	Summary	Risks, issues and mitigation
Fleet replacement (Amber)	To date, 3 sites (Woodhatch Place, Meroo Depot and Quadrant Court) have EV charging points and 6% of the vehicle fleet are low emission. A green fleet policy is being developed and a fleet management system has been procured to support decisions on fleet decarbonisation.	Some vehicles such as fire engines are unlikely to be decarbonised by 2030, due to their age and lack of suitable low carbon alternatives on the market; however, hydrogen options are being explored.

PROGRESS AGAINST ACTIONS TO TACKLE INDIRECT EMISSIONS

DECARBONISATION OF COMMUNITY SCHOOLS

An offer to help schools install low carbon measures to reduce their energy emissions is in development. Measures will include a focus on Solar PV to maximise bill savings for the school and protect against higher costs of electricity. A pilot with 5 schools is underway to test the approach, and additional funding has been secured to improve the offer to include heat pump and insulation measures in tandem. If successful we will seek the roll out the scheme to all schools.

Progress	KPI by 2025	Risks, issues and mitigation
Decarbonisation of community schools (Green)	Carbon reduction programmes in place	The installation of low carbon heat can drive up energy costs, putting further pressure on already stretched school budgets. To offset energy increases officers are exploring opportunities to install solar PV and insulation on school sites.

SUSTAINABLE PROCUREMENT

The Environmentally Sustainable Procurement Policy has been developed and approved at Cabinet in September this year. The policy framework was developed with a wide range of partners and will be implemented in Surrey County Council, Brighton and Hove City Council and East Sussex County Council. Support will be given to Borough and District Councils who also want to implement it. Next steps will be to proactively work with suppliers and, identify sector specific low carbon requirements and build the monitoring and reporting of emissions needed to measure progress.

Progress	KPI by 2025	Risks, issues and mitigation
Procurement (Green)	Environmentally Sustainable Procurement Policy in place. Decarbonisation commitments embedded into all new and re-procured contracts.	In some cases, procurements which have higher environmental standards may result in increased costs. Officers are working with consultants to develop mitigation strategies for potential price increases.

AGILE WORKING

A Staff Travel Strategy has been developed, but whilst some initiatives such as bicycle and EV salary sacrifice schemes are in place, many staff travel policies have not yet been implemented or effectively socialised. This is mainly because the staff travel strategy was developed pre-Covid-19, but it is now being reviewed to reflect the change in office working patterns.

Since the launch in April 2022, the Green Champions Network has been attended by 120 SCC staff and 5 trained officers are rolling out a full

Carbon Literacy Training programme, starting with the Corporate Leadership Team. The next step is to increase the recruitment of Green Champions across SCC to facilitate the take up of low-carbon behaviours amongst staff and their communities.

Progress	KPI by 2025	Risks, issues and mitigation
Staff travel (Amber)	Carbon reduction targets for business travel and staff commuting are approved, sustainable travel policy in place	The Staff Travel Strategy was developed pre covid. The strategy needs to be revisited to reflect post covid office use patterns.
Green Champions Network (Green)	No KPI set.	Despite a significant groundswell, the ability of staff to reduce carbon emissions may be impacted by competing work priorities or a lack of time to take actions. Senior support for the scheme will help to ensure longevity.

CASE STUDIES

Figure 4: Phase 1 of the Council's retrofit programme

In 2020/21 a £1.65M bid from Government's Public Sector Decarbonisation (PSDS phase 1) scheme kick started the Council's retrofit programme, in which 6 buildings had heat pumps, insulation and solar PV installed. The measures are set to save £129k per year on energy savings (based on projected 2023 energy costs) and 254 tonnes of carbon per year. The scheme included roof mounted solar on 5 buildings as well as a modular solar car port at Quadrant Court, producing 276KW installed capacity.

The Council is currently delivering phase 3a of the PSDS programme, for which £2.6M funding has been awarded for 15 buildings and has recently submitted a bid for the PSDS3b phase requesting grant funding of £6M to decarbonise 26 buildings.



Figure 5: Net zero Independent Living project



Independent Living is a major programme seeking to provide homes for vulnerable adults people who need support. Designed to be a net-zero building, the newly approved plan will enable residents to have very low or now energy bills, protecting them from fuel poverty.

Figure 6: Building Management Pilot

Consort House was used to pilot the Grid Edge technology that employs artificial intelligence to understand how buildings are used and optimise their energy performance as a result. The results exceeded expectations, achieving £21k energy revenue savings within 6 months. The pilot will be rolled out to the 4 largest energy use buildings and is expected to achieve additional savings of around £155k per year.

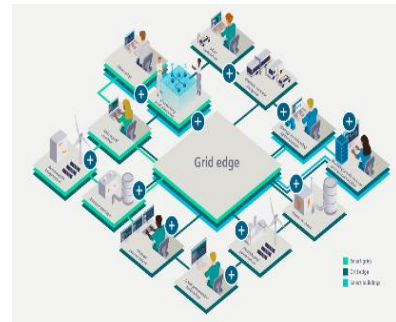


Figure 7: Surrey County Council Green Champions



Launched in April 2022, the Green Champions Network, is seeking to drive forward sustainability within the organisation, with partners, and the wider community. To date the network has over 115 members of staff and Councillors, holds monthly 'lunch & learn' sessions to share knowledge on climate change topics, organised a successful ragwort clearing conservation volunteering day, and meets monthly to discuss and learn how to embed sustainability across the organisation.

Figure 8: Sustainable procurement

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Environmentally sustainable commitments are now being included as part of selected appropriate contracts. In our Highways Maintenance Service contract, the successful bidder set out an electric vehicle strategy and commitment to plant 100 trees per year. The Highways Professional Services tender enabled a commitment to reduce embodied carbon by 60% reduction whilst increasing biodiversity by 10%. Updated Social Value webpages have been added to the SCC website which directs suppliers to achieve additional value in the provision of their services. Two of SCC's social value focus areas are 'tackle root causes of climate change' and 'invest in Surrey's greener future' which each address carbon reduction and biodiversity gain. Methods of using social value to further support environmental initiatives are being explored.

END

ⁱ Cabinet report October 2021, Item 9 Annex 3: [\(Public Pack\)Agenda Document for Cabinet, 26/10/2021 14:00 \(surreycc.gov.uk\)](#)

ⁱⁱ The Greenhouse Gas Protocol; [Greenhouse Gas Protocol | \(ghgprotocol.org\)](#)