

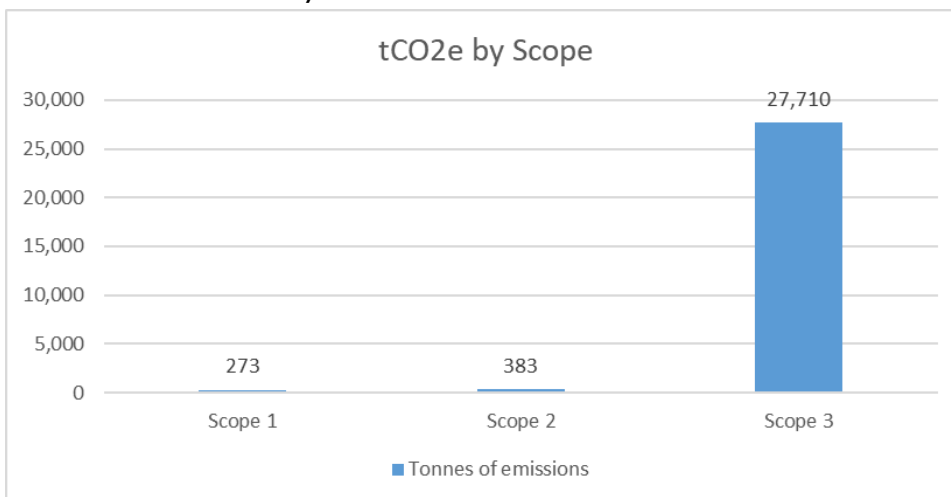
Surrey Heath Borough Council's Journey to Net Zero Emissions by 2030

Overview

This document is a condensed version of a report writing for Climate Change Working Group in March 2024. It provides a brief overview of the council's pledge to deliver net zero emissions by 2030.

An organisations emissions are split into Scopes 1, 2 & 3:

1. Emissions an organisation owns or controls e.g. fuel used by a vehicle. Scope 1 accounts for nearly 1% of council emissions (87% of scope 1 emissions come from gas used in buildings).
2. Emissions caused by a company indirectly e.g. emissions from the generation of electricity used in our buildings. Scope 2 accounts for just over 1% of total council emissions.
3. Indirect emissions caused across an organisation's value chain, not from activities or assets it controls. These emissions, including those from procurement, staff travel, and waste processes account for nearly 98% of total council emissions.



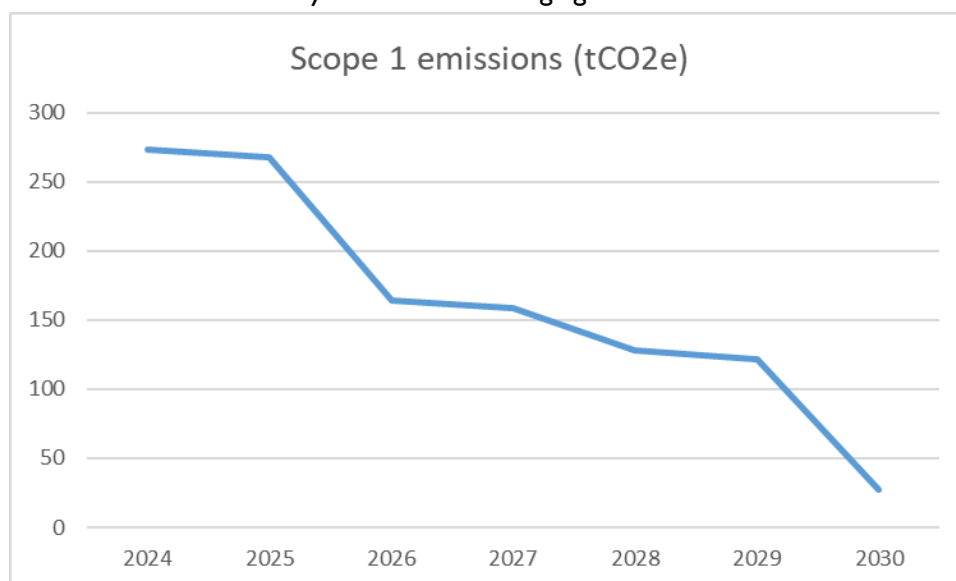
Scope 1 Emissions

Scope 1 emissions total 273 tCO₂e (tonnes of CO₂ equivalent). 87% of these come from our buildings' gas use. To reach net zero, we need to eliminate gas heating via reduced property holdings or switching to low-carbon heating options like air source heat pumps (ASHP). Electrification of heating systems will raise scope 2 emissions, however, this is a significant carbon saving over gas heating. Decarbonising our heating will cost around £2.5 million. Costs are calculated by scaling consultant estimations, and from quotes for similar projects.



Note the council is responsible for emissions from unleased and empty industrial properties and the service areas of The Square. Any projects at the Square would need to be agreed and taken on by all stakeholders which may make a project difficult to action before 2030.

The Internal Combustion Engine (ICE) fleet produces the remaining 13% Scope 1 emissions (36 tCO₂e). The replacement process has begun, and an EV Strategy is planned for 2024 for the remaining 14 ICE vehicles. Costs to electrify the fleet and charging infrastructure are estimated at £540,000.

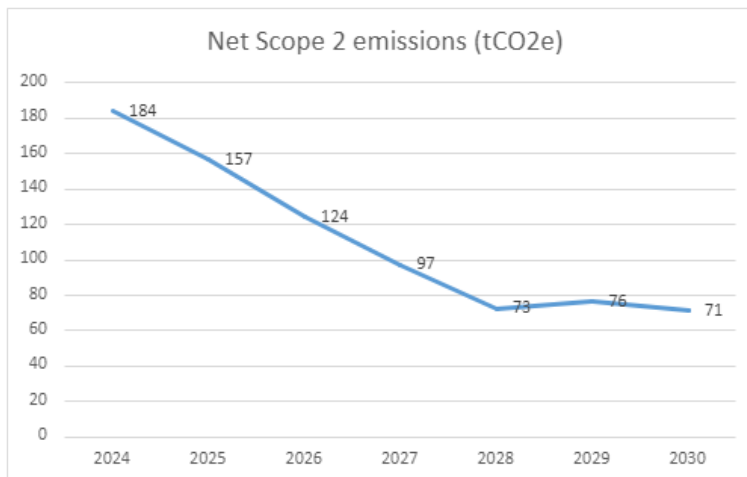


Scope 2 Emissions

All 383 tCO₂e of our Scope 2 emissions come from the production of electricity used by the council. In October 2023, we began procuring Renewable Energy Guarantee of Origin (REGOs) certificates. REGOs match our energy demands with renewable electricity around the UK. REGOs enable the council to report our Scope 2 emissions as zero, but we are also required to report what our emissions would be if we did not have REGOs. We can reduce Scope 2 emissions by replacing inefficient plant and installing solar photovoltaic (PV) on buildings, for example. PV also provides significant cost savings which generally pay back within 4-8 years of installation.

Using ASHPs and EVs would increase electricity usage. However, we have identified two PV projects (costing £650,000) which will cover this increased demand. The main cause of Scope 2 reductions will be the electrification of the UK power grid, this should ensure that all our electricity is net zero by 2035.





Scope 3 Emissions

Scope 3 emissions come from a large range of sources. The largest source is procurement which accounts for 99% of all Scope 3 emissions. Amey (our waste contractor) accounts for around 78% of procurement emissions. To reduce these emissions, we need to work with suppliers to identify new practices or substitute goods that will result in lower emissions. The council could also only procure from firms that have committed to reducing emissions via their own net zero plans.

Both options will likely have cost implications and in some cases, service delivery/quality will be more important than limiting emissions, reducing the impact of these measures. With Scope 3 emissions being outside the council's control, it is not possible to accurately predict reductions and costs. Due to this lack of control, it is advised that Scope 3 does not form part of our 2030 net zero pledge. While Scope 1 & 2 emissions account for a much smaller part of our total emissions, we can reduce these quickly.

Conclusion

Focusing on Scopes 1 & 2, the main challenges to overcome will be costs and the tight project timetable needed to reach net zero by 2030. The estimated total cost of minimising our Scope 1 and 2 emissions is £3,464,000. More staff resource than currently exists would be needed to deliver these projects by 2030. Scope 3 has been omitted from these assumptions due to our limited control of this area.

Even with an ambitious work programme, it is estimated that the council will produce 98 tCO₂e in 2030 (diagram below). Therefore, in order to meet net zero, offsetting of emissions will be required. There is a cost associated with offsetting our emissions, which varies by option. It is suggested that we set an internal carbon price of £95 per tCO₂e, aligning us with the London Plan 2021. Project businesses cases would include the price of carbon, highlighting the true cost of inaction. Where a project is not taken forward, it is suggested that £95 per tCO₂e is added to an offset fund to ensure that we are able to afford offsetting measures post 2030. An offsetting strategy should be produced in the coming years to assess the council's options.



