

## Questions and Answers: LSE's carbon footprint

We take a systematic approach to **measure**, **reduce** and **mitigate** our carbon emissions.

We have set ourselves challenging carbon targets which we continually review, and we are working hard to reduce our carbon footprint, through investment in energy efficiency and other measures. We also mitigate our carbon emissions when possible as an interim measure.

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# Measure

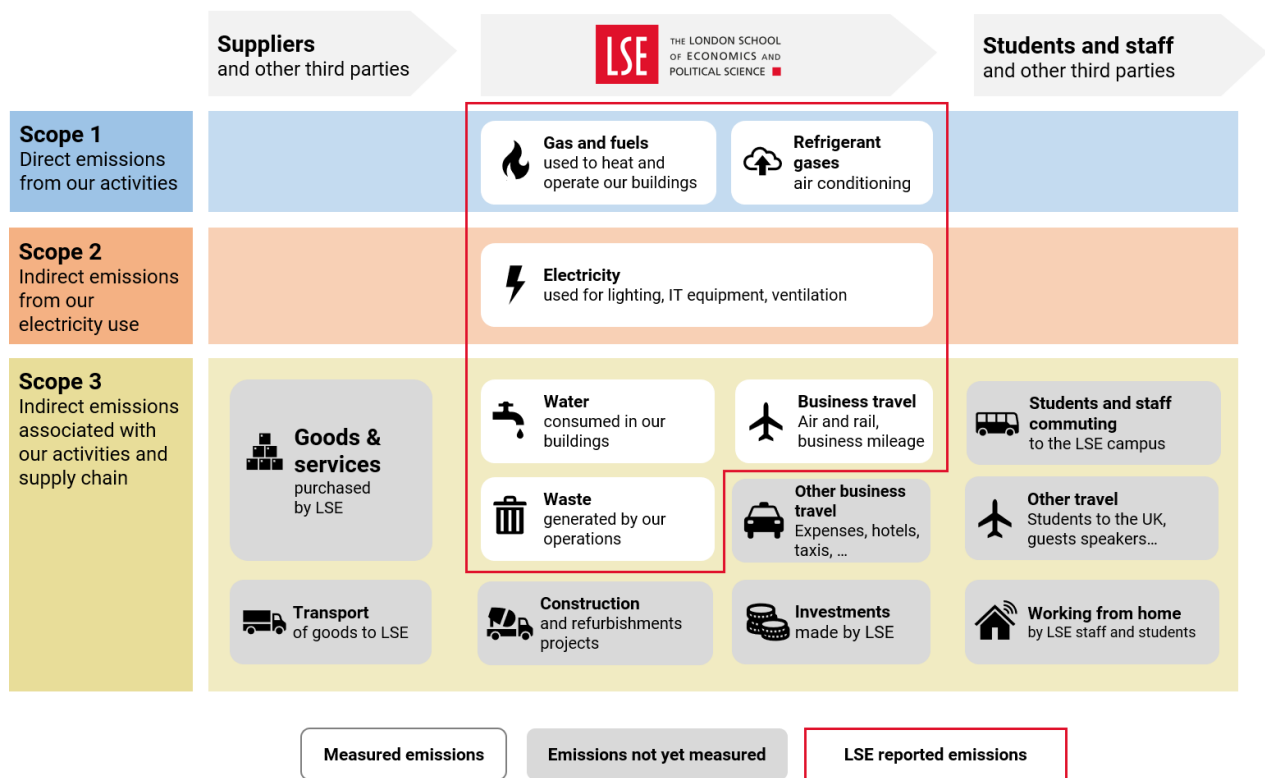
## Q1. How do we measure our carbon footprint?

LSE measures and calculates its carbon footprint using internationally recognised methodologies including the Greenhouse Gas Protocol and official carbon emission conversion factors published by the UK Government. More details can be found in the *Measure* section of our [carbon webpage](#).

Figure 1 below shows the activities we measure associated carbon emissions for. We are working to expand the scope of our measured emissions and to reduce all our emissions. For instance we know emissions associated with our supply chain are significant and like other organisations are significantly higher than our direct emissions.

Further details of carbon emissions currently included and excluded in our reported carbon footprint can be found in the emissions inventory in Appendix C of our PAS 2060 [Qualifying Explanatory Statement](#).

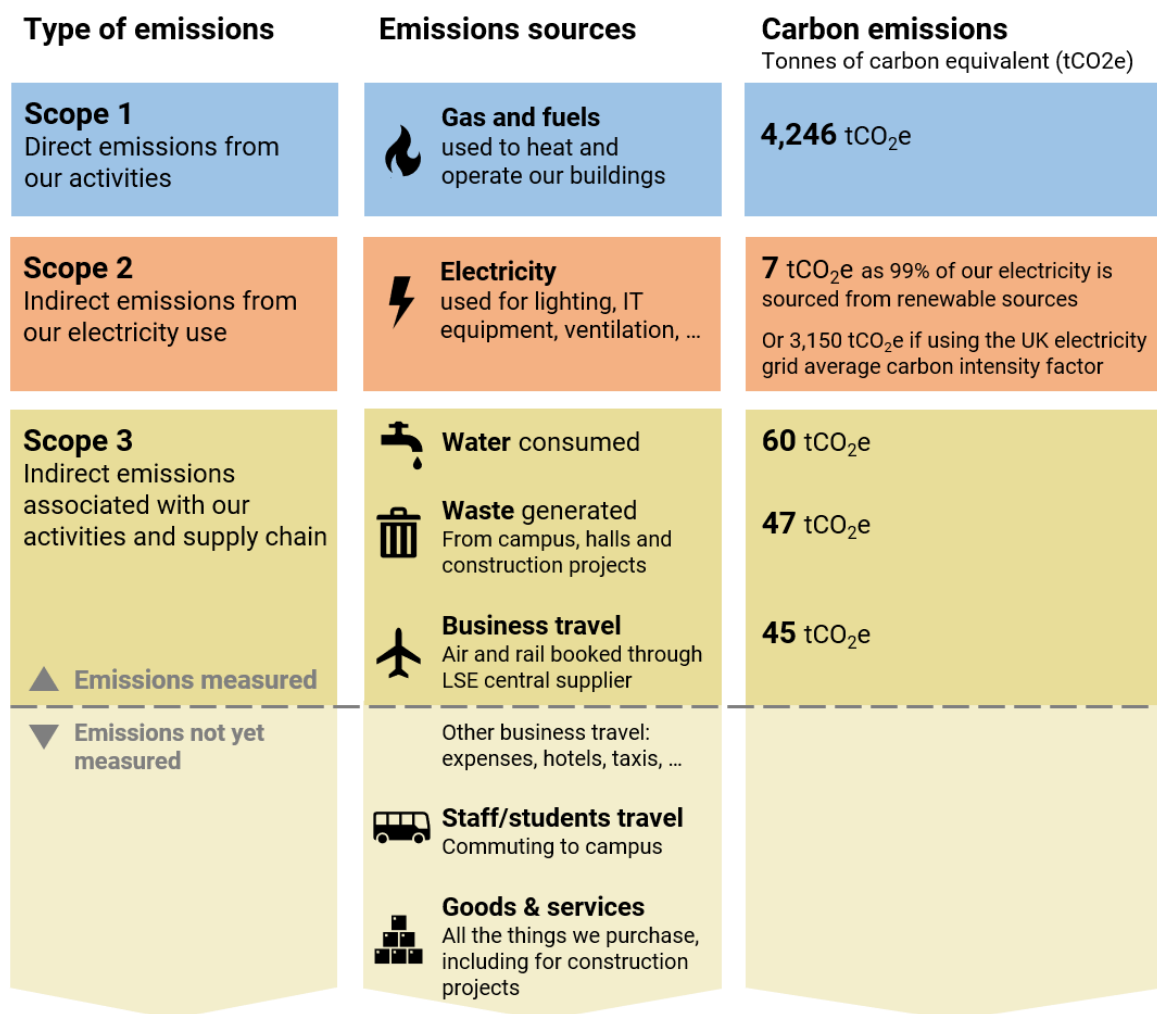
Figure 1. Boundaries of LSE’s reported carbon emissions



## Q3. What is LSE’s carbon footprint?

LSE reports its carbon footprint as part of its [Annual Sustainability reports](#). Our reporting periods match academic years, with our latest reported carbon footprint being for the period 1<sup>st</sup> August 2020 to 31<sup>st</sup> July 2021. Figure 2 on the next page shows the breakdown of our reported emissions.

Figure 2. LSE's carbon footprint 2020/21



**Q3. Is LSE's carbon footprint verified by third parties?**

Our 2018/19 carbon footprint was externally reviewed by sustainability consultants MACE against the requirements of ISO 14064, the international standard for *GHG (greenhouse gases) Emissions Inventories and Verification*, who concluded that 'Overall, based on the extent of our investigations, LSE systems are shown to be compliant with ISO14064'. In 2018/19 our external auditors KPMG also conducted an audit of our carbon emissions data. And in 2020/21 external auditors BSI conducted a thorough audit of our carbon footprint and underlying data as part of our verification to the PAS 2060 standard for carbon neutrality (see our [Qualifying Explanatory Statement](#) for details).

 Reduce

#### Q4. What are LSE's carbon targets?

**Become a carbon neutral university from 2020/21** for all the emissions we currently measure (Scope 1 & 2 for our energy use, and Scope 3 for water, waste and business travel), using carbon reduction credits to mitigate the emissions we have not yet reduced or avoided.

**Achieve net-zero carbon emissions by 2030 for our most direct emissions** (Scope 1 & 2) and by 2050 at the latest for all our emissions, adopting a challenging carbon reduction pathway aligned to climate science and using carbon removal measures for our residual emissions.

#### Q5. What is the difference between carbon neutral and net-zero carbon?

We make an important distinction between our carbon neutral and net-zero carbon targets.

There are several definitions for net-zero, such as provided by the [IPCC](#) or the [Carbon Trust](#). For a company net-zero carbon is delivering actual carbon reductions in alignment with climate science, combined with carbon removal methods for residual emissions (the 'net' in net-zero). On this basis achieving net-zero for any organisation is very challenging and will need to be supported by systemic change from all sectors of the economy.

Being carbon neutral on the other hand is the action of mitigating the emissions an organisation currently produces regardless of the level of reduction delivered to date. This is usually achieved by purchasing carbon reduction type credits (traditionally known as offsets), funding for instance additional energy efficiency projects abroad which contributes to reducing carbon emissions at a global level.

**Carbon removal type projects** – removes carbon emissions from the atmosphere, for instance planting new forest or using Carbon Capture and Storage (CCS) technology.

**Carbon reduction type projects** – prevents emissions from entering the atmosphere – for instance protecting forest at risk of being lost or increasing renewable energy capacity.

#### Q6. Why are LSE's net-zero targets not sooner?

Our use of gas to heat our buildings is the main challenge to reach our 2030 net-zero target for Scope 1 & 2 emissions. While solutions are emerging for low-carbon heat, these are costly to adopt at scale, and most especially in a dense urban environment with limited space. We are scoping options, such as opportunities to connect to planned local heat networks.

The emissions linked to our goods and services (Scope 3) rely on a vast number of suppliers. Tackling those emissions will rely on a longer process, working in partnership with our suppliers, encouraging them to make plans for going net-zero across their operations.

#### Q7. What is LSE doing to reduce its carbon emissions?

We have invested £4.8m since 2015 in retrofitting LSE buildings with energy-efficiency measures, in partnership with the Mayor of London's RE:FIT scheme. Some of the

technologies implemented include LED lighting upgrades and controls, solar panels, boiler and chiller upgrades, and pipes insulation.

We are committed to continue following a challenging carbon reduction pathway, to deliver our target to be net-zero carbon by 2030 for our energy use (scope 1 and 2) and by 2050 at the latest for our indirect emissions (Scope 3).

Our Net Zero Carbon by 2030 commitment for Scope 1 and 2 emissions translate into a further 50% absolute carbon reduction against a 2018/19 baseline. Our [Carbon Reduction Strategy](#) developed in 2020/21 describes the different potential measures identified to deliver this target, which the Estates division and the School are now further progressing with oversight and monitoring by staff and students as part of our [Sustainability Operations Group](#).



## Mitigate

### Q8. Why is LSE mitigating its emissions?

The purchase of carbon credits funds carbon reduction projects which would otherwise not take place, supporting carbon emissions reductions at a global level. Delivering carbon reductions is always our priority, and our mitigation efforts is an additional measure.

If used appropriately, the cost of carbon credits can also be a tool to incentivise reductions. For instance associating a carbon cost at business units level within LSE for business travel has brought more visibility to the carbon impact of international travel.

### Q9. What steps has LSE taken to ensure its carbon credits are high-quality?

LSE has partnered with the not for profit [Compensate Foundation](#) based in Finland to support high-quality carbon reduction projects globally. Compensate is known for its thorough approach in selecting and monitoring carbon mitigation projects for their integrity in delivering demonstrable carbon reduction impact, as well as social and environmental co-benefits such as protecting biodiversity or creating economic opportunities for local communities.

As well as being certified to recognised international standards such as the Gold Standard or Verified Carbon Standard, projects are subject to Compensate's rigorous evaluation criteria, supported by an independent Scientific Advisory Panel of academic and industry experts. Compensate's criteria goes well beyond international standards, and 90% of projects evaluated fail to meet it and are thus not selected.

By partnering with Compensate and its rigorous approach, LSE ensures that its mitigation efforts meet stringent criteria for additionality, verifiability, traceability, and permanence.

And LSE recognises the need to move as soon as practical to carbon removal type projects only when mitigating residual emissions, as part of achieving its net-zero carbon targets.

### Q9. Why is LSE over-mitigating its carbon emissions?

LSE adopted Compensate's unique 'overcompensation' approach, to mitigate risks identified with the carbon methodologies of specific projects and ensure real climate impact.

Compensate scores projects to estimate the true climate impact of one carbon credit, which in reality often corresponds to less than one tonne of carbon (tCO<sub>2</sub>e). Each project is given its

own real carbon impact factor. To ensure one tonne of carbon emissions is truly mitigated, LSE buys more credits than would technically be necessary to make a mitigation claim.

### Q10. What carbon mitigation projects is LSE supporting?

The LSE community chose a 'biodiversity' focused portfolio of projects, made of:

Project name	Country	Project type	Project outline
EDD project in Brazil nut concessions in Madre de Dios, Peru	Brazil / Peru	Forest conservation	<p>The project aims at increasing concessionaires' income from sustainable harvest of brazil nuts and contributing to region's sustainable development.</p> <p>The key objective of the project is to prevent deforestation, to increase 405 concessionaires' income from sustainable harvest of Brazil nut, and to prevent illegal logging and mining.</p>
Rimba Raya Biodiversity Reserve Project	Indonesia	Forest conservation	<p>The Rimba Raya Biodiversity Reserve Project is the first project to register to the Sustainable Development Verified Impact Standard, contributing to all 17 SDGs, and maintaining its Triple Gold ranking under the Climate, Community and Biodiversity (CCB) Standard.</p> <p>The project increases income of local communities by enabling access to employment with above-poverty salaries, diversifying income sources and providing grants for small-scale food producers. The project increases access to affordable energy, clean water, health services, community infrastructure, and higher education for students with financial needs.</p>
TIST Program in Kenya, VCS 005	Kenya	Reforestation	<p>The International Small Group and Tree Planting Program (TIST) is an award-winning reforestation and sustainable development programme representing a community of more than 95 000 farmers, 35,000 of which are women, across Kenya, Uganda, Tanzania and India.</p>
WithOneSeed Timor Leste Community Forestry Program	Timor Leste	Reforestation	<p>The project supports 980+ subsistence farmers to plant trees and forest on their degraded lands. The project is dedicated to improving the resilience of subsistence communities, to making environments sustainable, to end poverty and hunger, to deliver climate education to the communities, and to create regional partnerships, and supports 10 out of 17 United Nations' Sustainable Development Goals.</p> <p>Farmers receive an annual incentive payment for planting, managing and maintaining forest trees on their land</p>

### Q11. How has the LSE community been consulted and involved in this process?

The LSE community was involved at each stage of our journey to becoming Carbon Neutral. In our 2020 sustainability consultation, 86% of participants agreed that LSE should mitigate the impacts of its current carbon emissions.

Early 2021 a panel including student and academic representatives scored proposals from carbon credits suppliers and unanimously agreed to appoint the Compensate Foundation as LSE's partner, in recognition of its uniquely diligent and science-based approach.

In March 2021 staff and students took part in a workshop with Compensate to shortlist potential carbon credits portfolios for LSE. Shortlisted portfolio options were put forward in an open vote to the LSE community, which selected a portfolio focused on forest conservation projects, for their additional positive impacts on biodiversity and creating economic opportunities for local communities.

### Q12. Has LSE worked with others in the higher education sector in this process?

LSE actively collaborates with many Higher Education networks and institutions, to inform its approach and share its experience and learnings. On this topic, this has included LSE:

- Co-authoring on the COP26 Universities network on a briefing note exploring in details how carbon offsetting can help UK further and higher education institutions achieve net zero emissions published in January 2021.
- Being a member of the [EAUC Carbon Coalition](#) advisory board, a consortium of UK and Ireland higher and further education institutions that have joined together to offset their emissions leveraging their combined buying power and knowledge.
- Sharing our approach, progress and lessons learned at several events, including meetings of peer institutions organised by the EAUC (Environmental Association of Universities and Colleges) and the Higher London network.

### Q13. What does it mean that LSE is verified Carbon Neutral?

LSE was independently verified by the [BSI group](#), a world leading certification body, against the requirements of the PAS 2060:2014 international standard for carbon neutrality. The objective of PAS 2060 is to ensure the transparency of carbon neutrality claims by providing a common definition and recognised method of achieving carbon neutral status. LSE was externally audited over the course of several days, to check its carbon data collection and analysis processes, carbon reduction measures, and the robustness of its carbon mitigation measures. LSE's publicly available [Qualifying Explanatory Statement](#) provide details demonstrating carbon neutrality for the academic year 2020/21 to the PAS 2060 standard.

### Further resources

- LSE Sustainability team – What we do - [Carbon](#) and [Energy](#)
- How can carbon offsetting help UK further and higher education institutions achieve net zero emissions? [COP26 Universities Network Briefing](#) (2021).
- LSE's [Qualifying Explanatory Statement](#) to demonstrate carbon neutrality for the academic year 2020/21 under the PAS 2060: 2014 standard (2021)

The views provided reflect our thinking at a point in time. Sustainability is a journey, and we keep adapting our approach to be as effective as possible, based on the latest research and in dialogue with the LSE community.