Update on progress of the Sustainability Sub-Strategy 2021-26

Introduction

1. The Sustainability Sub-Strategy 2021-26 is a sub-strategy of the University Strategy, and thus is designed to support our core values and aims. Staff and students striving for excellence in research and education require and deserve a sustainable institution that provides comfortable and inspiring places to work and live.

2. The Sustainability Sub-Strategy received approval from Council July 2021. This paper covers progress on its first year of delivery, focusing specifically on the 2021-2022 academic year.

3. Leads for each priority area have provided updates on progress against objectives in the Action Plan, and collated into this report by the Sustainability team.

4. This paper is organised to match the 13 priority areas within the Sustainability Sub-Strategy, with each section detailing progress against the objectives and deliverables set out in the Climate Action Plan. The 13 priority areas are:

   a. Scope 1 and 2 carbon emissions

   b. Scope 3 carbon emissions

   c. Education

   d. Research

   e. Biodiversity and grounds

   f. Water management

   g. Waste and recycling

   h. Travel and transport

   i. Food and drink

   j. Sustainable buildings

   k. Space use

   l. Finance and procurement

   m. Our community

Priority 1: Scope 1 and 2 carbon emissions

5. The University's carbon emissions continue to fall steadily, through a combination of decarbonisation of the electricity grid and projects to improve energy efficiency. Figure 1. shows the University's carbon emissions by calendar year up to 2021. 2020 and 2021 are anomalies due to the impact of covid lockdowns, however hybrid working is expected to have

a continued consequence of lower emissions due to reduced energy demand.

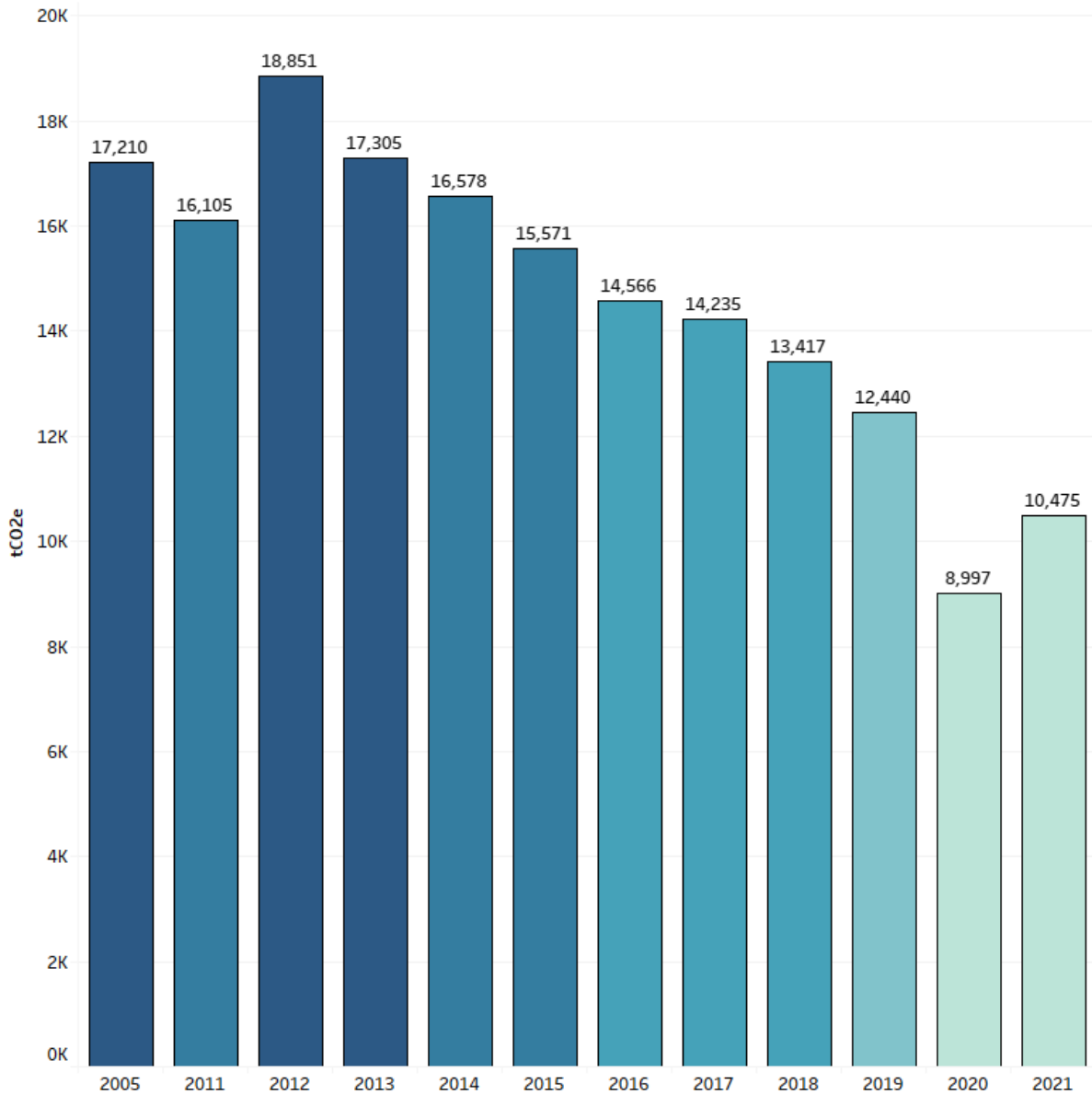**University's Carbon Emissions Scope 1 & 2**

Figure 1. University of Essex scope 1 and 2 carbon emissions (annual).

6. Liaison with the Carbon Trust will be undertaken in the development of the new Carbon Management Plan, to ensure we are meeting recognised standards. This work will be prioritised to ensure we have a clear trajectory towards net zero by 2035. The draft will be shared with relevant groups/committees, including the Climate and Ecological Emergency Advisory Group (CEEAG).

7. Our net zero commitment includes an absolute reduction of carbon emissions by 76%, alongside offsetting. A draft policy which will set out our position on offsetting is being prepared, and the CEEAG will be consulted for their input. It is essential that we take a clear, robust approach that ensures any offsets we use have measurable, verifiable impacts.

8. A new Energy Policy is currently being drafted, which will include thermal and comfort cooling, to better manage energy use throughout the calendar year. Rising energy costs will create financial pressures, and although we are currently on a favourable fixed rate contract, this will end in September 2024 and we expect that prices will still be higher, if less volatile. Work to identify projects to improve energy efficiency are being expedited to reduce the effect on the University of these rising costs.

9. A communication and engagement plan has been prepared, which will be implemented for the new academic year 2022-23, which focuses on energy efficiency. Various methods, including digital and physical media, events and webinars will be used to raise awareness of energy efficiency and encourage behaviour change.

10. Additional solar/photovoltaic (PV) panels are being installed at present (September/October 2022), which will take us to approximately 5% of our overall electricity demand.

11. Overall, steady progress is being made against our emissions reduction target and we are increasing the sophistication of our data monitoring, which will allow us to identify more precise trends and peaks and act accordingly. Incremental reductions will be achieved initially, as larger projects are scoped and funding established. The target is ambitious, and we anticipate challenges, particularly due to the design of our 1960s estate, however teams are coordinating around these issues to develop a clear plan.

Priority 2: Scope 3 carbon emissions

12. Using the GHG Protocol standard, which specifies 15 categories for scope 3, we have been making progress in gathering data for our initial estimate of our scope 3 emissions. A combination of both internal data and that provided by suppliers is helping to build a picture of the impact of our value/supply chain.

13. Scope 3 is typically less precise than scope 1 and 2, due to the nature and reliability of data (some sources are more accurate than others; for example, purchase of goods and services can currently only be based on spend, which overlooks environmentally-friendly purchases made).

14. The majority of data has been identified, which will allow us to determine a scope 3 net zero date by the end of the calendar year.

15. The recruitment of a Sustainability Analyst, and utilisation of Tableau software is allowing us to collect and explore data in detailed ways, and ahead of expected schedule. These insights ensure that our scope 3 plan is on target and will allow us to develop evidence-led policies and guidance.

Priority 3: Education

16. Education KPIs from the Sustainability Sub-Strategy are incorporated into the Curriculum Review that will take place over the coming years, led by the Dean of Undergraduate Education.

17. Due to changes in the Lead for the Education section of the SSS, progress has stalled slightly in this first year of delivery. This has now been resolved and focus will be given to deliverables with a target date of 2021-22 in the Action Plan. Support may be required in regrouping with objective owners, however in the first instance we would expect the Education Committee to discuss the reinvigoration of action.

Priority 4: Research

18. The Pro-Vice-Chancellor Research (PVCR) and the Head of Sustainability and Grounds are part of a UKRI, NERC-led working group of research-intensive Universities. The Working Group on Environmental Sustainability in R&I Sector seeks to produce a common language and priorities that can be shared with the sector for wider consultation. The first draft of a Concordat for the Environmental Sustainability of Research and Innovation Practise has now been produced by the group, which will be further developed through consultation. Ultimately, this will inform the Essex approach to costing the environmental footprint of research projects.

19. The strategic plans for the Centre for Environment and Society, and the Centre for Public and Policy Engagement are being delivered, which supports the work to raise the profile of environmental research at Essex.

20. It is now the case that the Researcher Development Framework (RDF) promotes climate consciousness at all stages, and it is adapting to changes in the environment, ecology and sustainability research context and activities. In the long-term, a standalone module on sustainability is expected to be developed for the RDF.

21. The Faculty Deans Research produced a document for consideration by Research Committee highlighting the research interests and expertise in climate, ecology and sustainability, with a view to identifying existing areas of strength, potential areas for collaboration to apply for external funding, and areas for future development. A 1.5-day residential sandpit on Human-Environment interaction, funded by the PVCR Strategic Fund and Research England Research Culture funding, brought together 20 academics at all career stages from across the University of Essex to collaborate and produce projects, competing for a pot of up to £20k to support the creation of major interdisciplinary grant applications. More sandpits will follow.

22. The Centre for Environment and Society runs a vibrant programme of seminars featuring internal and external speakers. One of the Eastern Arc Themes is sustainability, natural resources and food, and various events have been held across the three member institutions throughout the year. There has been one Cross University Research Event (CURE) specifically on Climate, Ecology and Sustainability in 2021-22, and other CUREs on AI, Heath and Data Analytics have showcased research on related topics. The University of Essex Anchor Pledges, agreed with Essex County Council and shared across the Essex Anchor Network, feature a pledge on Climate Change and Net Zero.

Priority 5: Biodiversity and grounds

23. To gain a better understanding of the biodiversity, ecology and carbon capture of our campuses, work has begun to identify contractors to complete audits, with quotes received. Audits are scheduled for early 2023.

24. Green exercise activities have been developed and take place monthly, with campus tours and jogging groups organised to encourage staff and students to enjoy and explore the Colchester campus. The implementation of this action was achieved through a group project completed as part of the Future Leaders programme.

25. The number of electric-powered grounds tools has been increased over the last year, including lawnmowing and trimming equipment, reducing reliance on petrol-powered machinery.

Priority 6: Water management

26. A water use audit is being carried out concurrently with a campus-wide buildings audit, to track infrastructure and identify all water-related assets. Alongside this, a proactive plan to review all water outlets for leaks and faults is being discussed with the Maintenance and Capital Development team, and we are liaising with water suppliers on the installation of automatic meter reads to streamline monitoring.

27. Actions in this section are predominantly due for delivery in the latter half of this SSS period. To date, work has focused on improving our data tracking and invoice management, as well as consolidation of suppliers.

Priority 7: Waste and recycling

28. To manage and accelerate the delivery of these actions, we are in the process of appointing a Circular Economy Manager, whose role will focus on creating efficiencies and improving facilities. We expect them to be in post in early October. While we have been undertaking recruitment to this role, the Sustainability team has been overseeing actions for 2021/22

delivery, with most on track. Where completion is behind, the Circular Economy Manager will be prioritising these for completion in early 2023 at the latest.

29. To support the achievement of KPI 19 (By 2026 total waste reduced by 5% (measured in tonnes) year-on-year from a 2019 baseline), the 2019 baseline has been established, based on available data, at approximately 780 tonnes of total waste and recycling. The 2020 and 2021 figures are anomalies due to covid lockdowns, but total 345 tonnes and 485 tonnes respectively. We expect the total for 2022 to be more in line with 'normal' figures.

30. Waste and recycling data, provided by our suppliers, is being tracked via dedicated software that supports the calculation of scope 3 emissions for waste and recycling. Complete data for all three campuses is still to be established, as a change of contractor for Southend and Loughton has recently been agreed. A requirement in the tender was the regular provision of data that will support our data monitoring.

31. Updated waste and recycling information has been added to the University website, covering an A to Z of common types of wastes our community produce, to help them determine how they should be reused, recycled or disposed of.

32. The Soft FM team are beginning a trial for food waste collection in Eddington Tower accommodation. Students will be able to dispose of food waste in a dedicated bin in their kitchen that will be emptied twice per week. Communications are being provided for students in Eddington Tower, to encourage the maximum use of these bins. Learning from this trial will guide the wider roll out of food waste collections across our accommodation blocks.

33. Through our new waste management contracts, we have maintained compliance with national guidance and legislation, ensuring Duty of Care is adhered to by contractors.

34. Sustainable purchasing guidance is in development, to provide advice on sustainable considerations when departments are buying goods and services. An initial 'Green Procurement' training session has been delivered to staff, in a joint webinar by CPU and Sustainability.

35. An audit of single-use plastics is in progress, which is developing a broad picture of the types of single-use plastics used on campus. This will then be used to identify the most common challenges, leading to the development of a single-use plastics policy.

36. The University continues its relationship with the British Heart Foundation on the end of term 'Pack For Good' campaign, encouraging students to donate items to the charity when they are moving out of campus accommodation. Data from the summer 2022 move out will be provided by the BHF in early 2022.

Priority 8: Travel and transport

37. Progress against KPI 25 (75% of University of Essex fleet vehicles to be electric by 2026) is on track, with 30% of our fleet vehicles now electric. The newest electric vehicle (EV) to be secured is a lightweight van used by the Maintenance team.

38. Work to modify our car parking management system to nudge users towards sustainable modes where possible is progressing, with the specification for a new parking management system being developed. Proposals for our pricing strategy are also being put forward for review.

39. Aspirations for software to monitor and reward car-sharing have been put on hold until the 2023 Spring planning round, as quotes proved too costly for 2022. Once funding has been secured, this will also allow the creation of dedicated car-sharing parking bays. This is the only action for Travel and Transport where we currently have an impact on delivery date.

40. Installation of additional secure cycle parking is being delivered in Spring 2023. An audit of cycling infrastructure is due to commence in Autumn 2022, which will identify suitable routes for additional facilities and a review of existing routes.

41. To reward regular cyclists, a scheme was introduced in April 2022 to award 1 free day of car parking each month (which can be accrued); this partly offsets the removal of the 'occasional user' parking permit.

42. Subject to the approval of all fleet activity transferring to the Travel team, work will begin to explore how our fleet can be rationalised to reduce the overall number, as well as developing a plan for replacement of older petrol/diesel vehicles with EVs.

43. Members of the CEEAG are developing proposals for a business travel policy that would favour sustainable modes wherever possible. Further discussion will be had at a future CEEAG meeting, before being made available for wider consultation.

Priority 9: Food and drink

44. Essex Food has recently introduced a new procurement system that drives efficiency and allows requirements to be specified at the outset, including sustainability considerations such as high welfare meat and fish, and seasonal, local fruit and vegetables. Coffee is sourced ethically, and suppliers will be reviewed annually to monitor compliance.

45. Essex Food have been reviewing their equipment to identify where improvements can be made and are developing a priority list for the replacement of equipment. A review of most effective and efficient use of back of house spaces has concluded and recommendations implemented. Regular servicing of equipment is embedded into agreements with their current supplier to maximise efficiency and lifespan.

46. Training on environmental and social aspects of catering is embedded within the Essex Food induction process underpinning all core beliefs and values. These values are reinforced throughout the probation period and ongoing training delivery. Staff also receive training to ensure equipment is being used correctly, and managers reinforce these messages.

47. Work is in progress to address food waste, from back of house to customer portions. Customer engagement and focus groups have been undertaken, with more planned, to better understand customer needs. There is training in place for the admin and delivered catering team to inform customers at point of order/booking of suggested quantities to avoid over-ordering. A new menu for the coming year includes all dishes available in multiple quantity options to give customers more choice on portion sizes.

48. Stem and Root, the first meat-free café on campus is due to open in October 2022, and for 2022-23 all menus across outlets will include a minimum of 10-20% vegetarian/vegan options.

49. Actions are progressing well on food and drink and at present the only one to have an extended delivery date (by one year) is 43.1, which centres on auditing food waste in the catering process. This is to enable a full year audit (in normal, post-pandemic circumstances).

Priority 10: Sustainable buildings

50. Energy use audit work is ongoing and will inform the development of policy for the efficient use of campus buildings. This links to future work on rationalising building use during non-core hours or low-use periods.

51. Production of policy and guidelines to ensure energy-efficient use of buildings by our campus community has been extended from 2021-22 to 2022-23, to allow completion of current audit work which will inform such policies.

52. A plan is in place for adjustments to heating and cooling regimes commencing October 2022 to drive energy efficiency and can be adjusted for seasonality. Further improvements will be made following an audit of spaces to inform location of activities and opening/closing times for buildings.

53. Building fabric is being reviewed, to identify opportunities for upgrades. A complete survey of the Colchester estate has been undertaken to identify estimated roof replacement costs which can then be set against the solar PV installation plan to develop synergies and minimise costs. Window replacement will be scoped at a later stage, as pay back is lower than other building fabric measures.

54. New low carbon infrastructure options for energy supply are at scoping stage, which includes additional solar PV on buildings, and the potential for a solar PV farm and/or wind turbine are at early exploration stage.

Priority 11: Space use

55. Growth in student and staff numbers, since the development of the Sustainability Sub-Strategy, has been accommodated within the existing estate through redesigns and refurbishments, rather than seeking to create new buildings (supporting KPI 31 - Student and staff number growth incorporated without further growth to the built environment).

56. The first phase of the SWAE project has now been completed, which will inform follow-on phases. Agile/hybrid working has created a range of opportunities to rethink how we use our space. In time, more teaching, research and student-facing spaces can be created within our existing estate, and a proposal has been put forward that all teaching spaces should be centrally timetabled to allow for greater flexibility.

57. Multi-functionality and shared-space use objectives have been incorporated into the space planning process to ensure refurbishment projects take a holistic, future-proofed approach.

58. Initial fact finding is underway to develop a policy, system and process to ensure all furniture, fixtures and fittings are recycled or reused within or without the organisation, or via recycled waste. Furniture recycling already takes place both within the University and externally including the methods utilised by contractors in recycling versus disposing of damaged furniture. Some ad-hoc storage and redeployment of furniture is being managed by the Capital Development team, with aspirations for further roll out, subject to storage space.

Priority 12: Finance and procurement

59. KPI 35 (Investment and banking processes align with our environmental and ethical principles) has been achieved, with the Statement of Investment Principles updated to including Banking. This was approved by the Investment Committee in April 2022 and will be reviewed annually. For transparency, the document is available on our website.

60. Request for bidders' sustainability and environmental policies are now included in the procurement process, and enhanced questions are asked on appropriate tenders.

61. A sustainability theme was included in the Spring 2022 planning round resource templates, to raise awareness of environmental impacts in decision-making. This will be reviewed again in the lead up to Spring 2023 meetings.

62. A phased approach is being taken to the introduction of sustainability, environmental and carbon impact sub-sections in Business Plan and Project Mandate templates, to align with

the maturity of the University's sustainability progress. We need to have processes in place for supporting and evaluating requirements, before rolling them out.

63. SPAG Terms of Reference have been updated to make explicit reference to the strategic oversight of the Action Plan for Financial Sustainability, including climate emergency work streams.

Priority 13: Our community

64. We are in the process of appointing a Sustainability Engagement Manager, who will oversee a wide range of student and staff engagement projects. We expect them to be in post by the end of November at the latest.

65. Work to emphasise sustainable and environmental choices and communicate our work continues. We have been exploring the range of student and staff touchpoints, identifying more ways to connect and embed messages throughout the cycle. The Sustainability team continues to attend Welcome events and is developing a number of initiatives for the 2022-23 academic year, including workshops and activities. The team also attended the Colchester Eco Festival in early September to engage with the wider community to raise awareness of the work the University is doing to reduce its environmental impacts.

66. Opportunities for our community to engage and feedback are being developed across a range of platforms, to reach different audiences at key moments. For example, a broad sustainability question is now included in the How We Work At Essex booster, inviting staff to consider how they can be more environmentally sustainable. This feedback is sent directly (anonymously) to the Sustainability team, for collation and analysis, and communications and advice is developed as a consequence.

67. Development of a broad community engagement programme is in its initial stages, with work to scope a consultancy that can devise an approach to guiding and supporting our community through change under way.

68. Guidance to support lifecycle thinking in the purchase of materials has been drafted in collaboration with Central Procurement Unit (CPU), with focus on key considerations when buying materials for a range of purposes. Once complete in the Autumn it will be available to all staff.

69. With the return to on-campus activity, an increased number of activities and events are planned for the 2022-23 academic year to allow students to engage with sustainability, including talks and workshops. A Climate Action week is planned for March 2023, which will focus on showcasing expertise from across the University, and the ways that individuals can

play their part. The Sustainability Team regularly liaises with the Students' Union on collaboration opportunities.

70. The Sustainability team will be recruiting a Frontrunner in early 2023 to support social media engagement and identify new opportunities to reach students.

Recommendations

71. University Steering Group is asked to note the updates included in the paper and offer feedback on progress.

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26 September 2022