ARTS UNIVERSITY BOURNEMOUTH

Environment, Sustainability and Net Zero: Annual Report 2021-2022

As part of its commitment to sustainability the University developed a Sustainability Plan that set out its priorities and targets for environmental sustainability. This plan expired in 2020 but then extended to 2021 whilst a new Sustainability and Net Zero (SNZ) programme of works was developed. Due to a cross-over period, when both Sustainability Plan and the first version of SNZ were live, this report is a hybrid-report of both Sustainability Plan and SNZ. Subsequent annual reports will be against SNZ only.

To avoid unnecessary repetition (and due to a longer period of the reporting timeframe being under Sustainability Plan), this report will henceforth refer to Sustainability Plan, but covers net-zero also.

The Plan owned and monitored by Environment Committee, reports progress to the Vice-Chancellor's Group of the Board of Governors.

AUB has ISO14001:2015 and EcoCampus Platinum certification.

There are six immediate areas of focus

- **Minimising emissions and utility usage**
- **Sustainable Resource Management**
- **Reducing emissions associated with travel**
- **Managing the estate efficiently**
- **Promoting biodiversity and Fairtrade**
- **Developing staff and student awareness and engagement**

Introduction

Arts University Bournemouth (AUB) acknowledges global climate change and the ecological crisis and wishes to play its part in mitigating against unwanted outcomes of these issue's. Furthermore, AUB is aware of its own environmental impacts, through operational practices and capital projects, and is committed to eliminating, reducing or compensating where this is not possible, these impacts in an innovative, efficient, and transparent way.

Message from the Principal and Vice-Chancellor

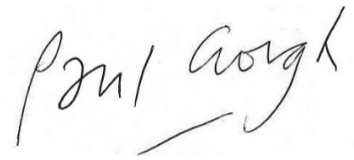
At the heart of the AUB Strategy are four core values that guide our practices and behaviours. Of the four, our value of staying 'connected' speaks powerfully towards the AUB Sustainability Programme, and our ambitions towards neutrality:

"We are better for our diversity. We are enriched by the depth of respect we have for each other and the strength of our relationships with our people, our places and with the planet. Through our commitment to working with those who are different to us, or challenge us, we grow stronger together, creating new synergies, global connections and sustainable futures."

Our commitment to an environmentally sustainable future builds on significant achievements at AUB over the past five years. Having already achieved ISO14001:2015 and platinum status as an Eco-Campus, during the lifetime of this Strategy, we will embrace the spirit and practices of the United Nations Sustainable Development Goals across all aspects of AUB's teaching, research and engagement. We are already seeing this in the new undergraduate curriculum, which staff have co-designed.

We have shown real commitment in becoming a signatory of the Global Climate Letter for Universities and Colleges, issued through EAUC (Environment Association for Universities and Colleges), and AUB has committed to reach net zero by 2030. We have gained certification as a registered Fairtrade university, with the top grade 3 stars. During 2020/21 AUB was presented on the global Fairtrade website as one of three HEI case studies for Fairtrade. We create a great many environmentally sensitive and progressive projects across the University, through AUB Human and through live and simulated briefs These will continue to expand and deepen.

These are all significant achievements for which AUB ought to feel proud. But there is always more to do. The programmes of work set out in the document will be supported by the University and our Board of Governors as we move creatively - and credibly - towards a sustainable and net zero future.



Professor Paul Gough
Principal and Vice-Chancellor

AUB Strategy 2030

In June 2020 AUB set out it's Strategy 2030 that communicated its Vision, Goals, Values, and Operational Plans. The whole strategy can be viewed at (add link). AUB's value's are:

INNOVATIVE

With an open mind we try new things, nurture ideas, trigger creativity and develop solutions. Through our innate curiosity, practice-based enquiry, and industry-partnered projects we work with our students, staff, and stakeholders to tackle problems and encourage authentic innovation

COLLABORATIVE

We strive to make a difference in all that we do. Through our collaborative approach we aim to be the agents of positive change for our students, staff, and the communities we serve. Through the applied excellence of our learning, teaching, and research we strive for relevance to make a positive impact.

CONNECTED

We are better for our diversity. We are enriched by the depth of respect we have for each other and the strength of our relationships with our people, our places and with the planet. Through our commitment to working with those who are different to us, or challenge us, we grow stronger together, creating new synergies, global connections, and sustainable futures.

PASSIONATE

Education transforms lives: a creative education transforms society. Through our sense of purpose and determination for the best education, research and partnering with industry, we empower our people to learn, grow and connect. We care about the work we do, the respect we have for each other, and the powerful sense of belonging that characterises everything we do.

The Sustainability Plan originally expired in 2020 and the Environment Committee agreed to extend to December 2021. AUB Strategy 2030 constitutes the institutions visions and plans so the forthcoming programme of actions will be communicated via the 'Sustainability and Net-Zero 2030' programme.

This is the report for 2020-2021 academic year. The completion of the Sustainability Plan five-year programme was reported last year to coincide with the original ethos and timeframe of the Plan.

The year extension focus was as a 'year of continuous improvement' to move the Sustainability Plan 2015-2020 to the new 2021 timeframe and move forward from current targets as is reasonably and practically possible. The committee were reassured from past performance (see 2015 to 2019 reports) that reaching deadlines does not hinder progress.

Campus closures will skew the data for the 2020-21 academic year as it did for 2019-20. This can be both positive e.g., less waste generated, or negative e.g., gas consumption increases due to ventilation.

This report only uses the Location-based criteria for reporting emissions to remain consistent with historical Sustainability Plan 2015-2020 scrutiny.

Science-Based Target

AUB uses a science-based target to determine the rate of decreasing trajectory for emissions in line with Intergovernmental Panel on Climate Change (IPCC) recommendations for keeping global average temperature to 1.5C above that of pre-industrial times. This is for all three scopes, although we currently acknowledge many scope 3 emission data is unavailable, missing, or unknown. This will be addressed as we progress forwards.

Figure 1 and Table 1 demonstrate the science-based target and data to be used.

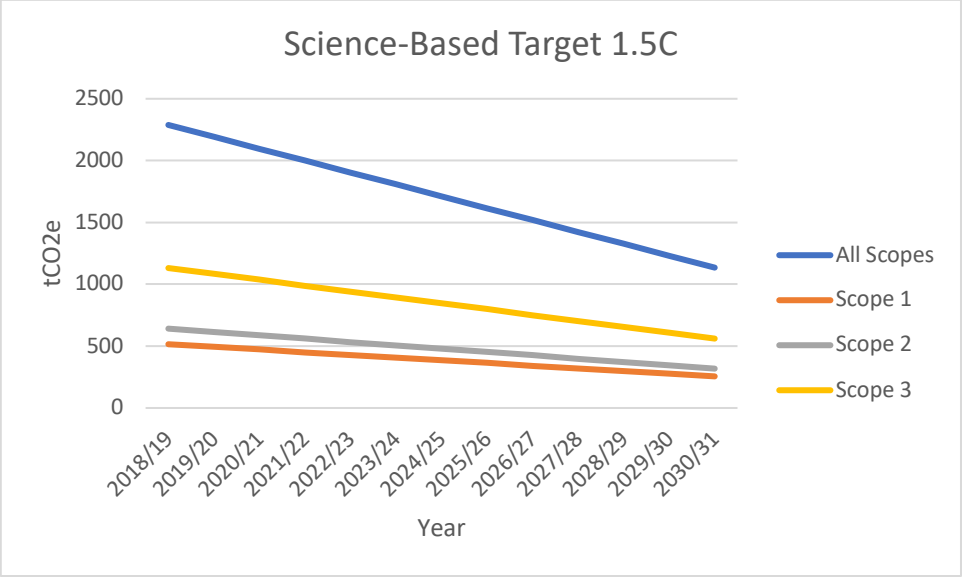


Figure 1. Science-based target decreasing trajectory for emissions between baseline 2018/19 and 2030/31 for scopes 1, 2, and 3.

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Scope 1	515.411	493.7637	472.1165	450.4692	428.822	407.1747	385.5274
Scope 2	641.601	614.6538	587.7065	560.7593	533.812	506.8648	479.9175
Scope 1&2	1157.012	1108.417	1059.823	1011.228	962.634	914.0395	865.445
Scope 3	1131.316	1083.799	1036.283	988.766	941.2493	893.7327	846.216
All Scopes	2288.328	2192.217	2096.106	1999.994	1903.883	1807.772	1711.661

	2025/26	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	
Scope 1	363.8802	342.2329	320.5856	298.9384	277.2911	255.6439	
Scope 2	452.9703	426.0231	399.0758	372.1286	345.1813	318.2341	
Scope 1&2	816.8505	768.256	719.6615	671.067	622.4725	573.878	
Scope 3	798.6993	751.1827	703.666	656.1493	608.6327	561.116	
All Scopes	1615.55	1519.439	1423.327	1327.216	1231.105	1134.994	

Table 1. Science-based target data between baseline year 2018/19 and 2030/31.

The six immediate areas of focus:

- Minimizing emissions and utility usage
- Sustainable Resource Management
- Reducing emissions associated with travel
- Managing the estate efficiently
- Developing staff and student awareness and engagement
- Promoting biodiversity and Fairtrade

Important Note: There can be small data discrepancies within annual reports. Correction invoices received for utility usage sometimes backdate to previous academic years after a significant time has elapsed. Adjustments ensure the integrity of the data and the emission totals but may result in historical data being slightly different in yearly reports.

The science-based target above has emissions in the scope that were not in the Sustainability Plan. We have aimed to ensure we lower our emissions as far as we can in the 2020/21 academic year to fit with our aim to lower as per SBT and our net zero ambitions, but we cannot make direct comparisons to it until 2021/22.

Net Zero Report

Emissions	**tCO2e**
Target emissions as per SBT for 2020-2021	1,036.283
Actual emissions for 2020-2021	1,464.394

Table 2. SBT and actual emissions. Location-based reporting as per original Sustainability Plan

Academic year 2020/21 emissions have increased in comparison with 18/19 academic year by 14 tonnes. This reflects the additionality of buildings since 18/19 academic year and the ventilation, and thus higher heating settings, caused by the pandemic.

Minimizing emissions and utility usage

Objective: to reduce emissions per head by 40% against 2005/6 level (from 0.56 tonnes to 0.336 tonnes per person).

Result:

Academic Year	**tCO2 / CO2e (without off-set)**	**tCO2 / CO2e per head**
2005 / 2006	**1344**	**0.56**
2015 / 2016	**1178**	**0.304**
2016 / 2017	**1095**	**0.273**

2017 / 2018	**957**	**0.227**
2018 / 2019	**869**	**0.213**
2019 / 2020	**695 (702)**	**0.171**
2020 / 2021	**874 (883)**	**0.209**

Table 1. Comparison of tCO2 / CO2e and tCO2 / CO2e per person (per person relates to full time/part time staff and students) for baseline year 2005/6, and 2015/16 to 2020/21

Comments

- Increase in total emissions to 874 (tCO2e) in 2020/21.
- Working-from-home emissions (scope 3) not included.
- The increase is a result of gas use. During the winter months with doors and windows open for ventilation heating was up higher to keep people warm.
- Gas emissions increased significantly by 197.679 (tCO2e). Add this increase to any previous year and it surpasses 874 (tCO2e).
- Similarly, minus the 197.679 (tCO2e) increase for gas from 2020/21 total and the emissions result in 676 (tCO2e), which is a slight decrease on 2019/20.

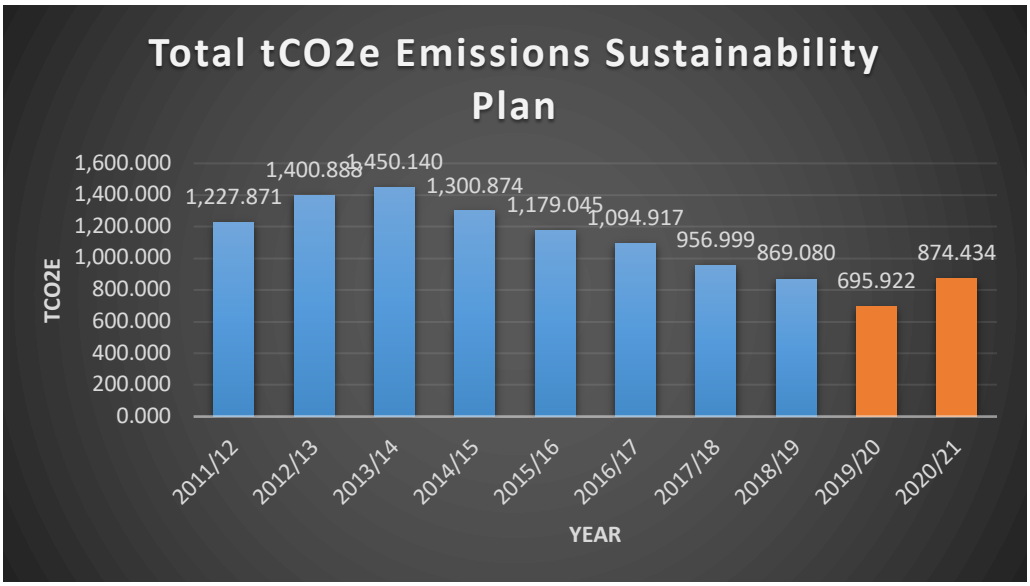


Figure 1: tCO2e total for main campus 2011/12 to 2020/21. Orange bar(s) signify campus closure years and the data disturbances

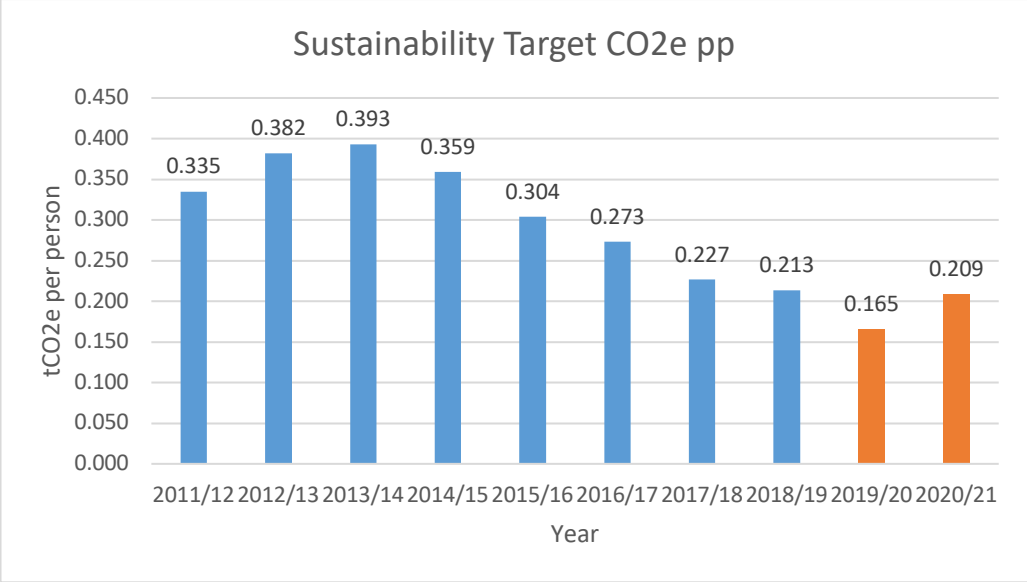


Figure 2: tCO2e per person 2011/12 to 2020/21. 'Person' represents full time staff and students. Orange bar(s) signify campus closure years and the data disturbances

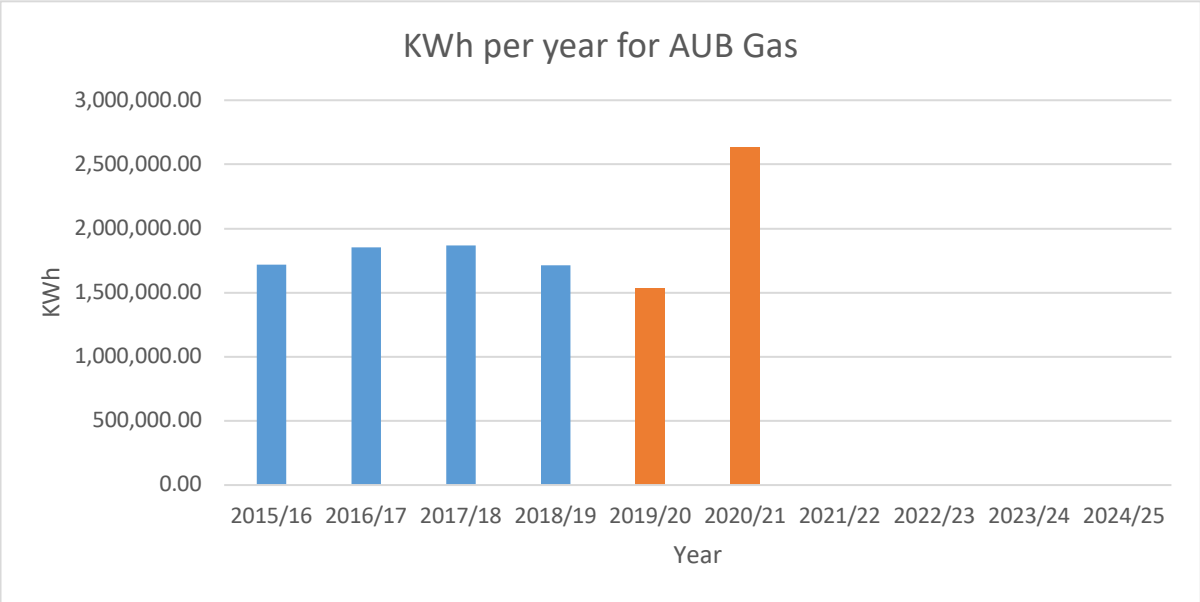


Figure 4: tCO2e main campus gas 2011/12 to 2020/21. Orange bar(s) signify campus closure years and the data disturbances

Water and wastewater

Year	M3	(t) Co2e	(t) M3 per head
2014 – 2015	10134	11.39	2.796
2015 – 2016	9152	9.598	2.358
2016 – 2017	9321	9.85	2.324
2017 – 2018	9508	10.08	2.252
2018 - 2019	7156	6.49	1.746
2019 - 2020	5794	4.20	1.366
2020 - 2021	5060	2.13	1.209

Table 5. Overall water consumption m3, tonnes of CO2e for water and wastewater treatment and tonnes water consumption per head (FT staff and students) for 2014/2015 to 2020/2021

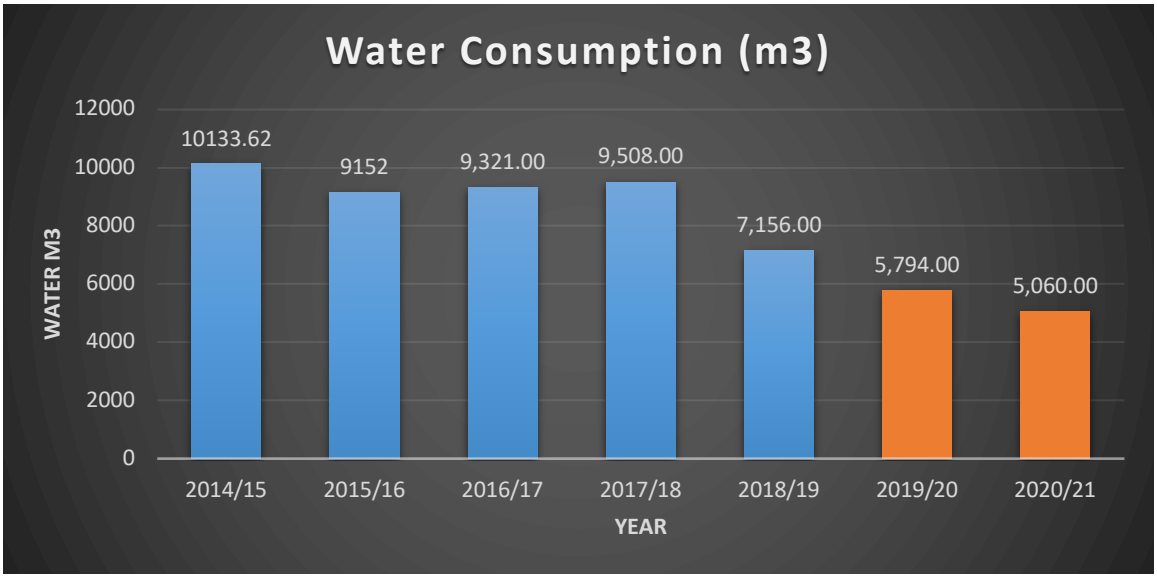


Figure 7: Water consumption m3 for the main campus 2014/15 to 2020/21. Orange bar(s) signify campus closure years and the data disturbances

Comments

- Further inconsistencies in historical data have been corrected although they do not make significant differences.
- Further decrease in water usage compared to 2018/19. Campus closure will have contributed to this.

Sustainable Resource Management

Objective: reduce consumption, increase recycling and re-use.

Year	(t) CO2e	Waste produced (t)	Waste non-recycled (t)	Waste recycled (t)	% Recycled
2012/13	3.413	162.539	130.387	32.152	20%
2013/14	5.128	244.194	186.17	58.025	24%
2014/15	4.897	233.210	180.572	52.639	23%
2015/16	5.250	250.020	194.316	55.704	22%
2016/17	4.737	225.561	149.595	75.966	34%
2017/18	4.590	214.631	110.39	104.241	49%
2018/19	4.317	202.170	82.118	120.052	59%
2019/20	2.674	125.461	54.179	71.282	57%
2020/21	2.235	104.951	41.809	63.142	60%

Table 6. AUB waste – (t) CO2e, (t) waste produced, (t) waste non-recycled, (t) waste recycled, and percentage of recycled from 2012/13 to 2020/21

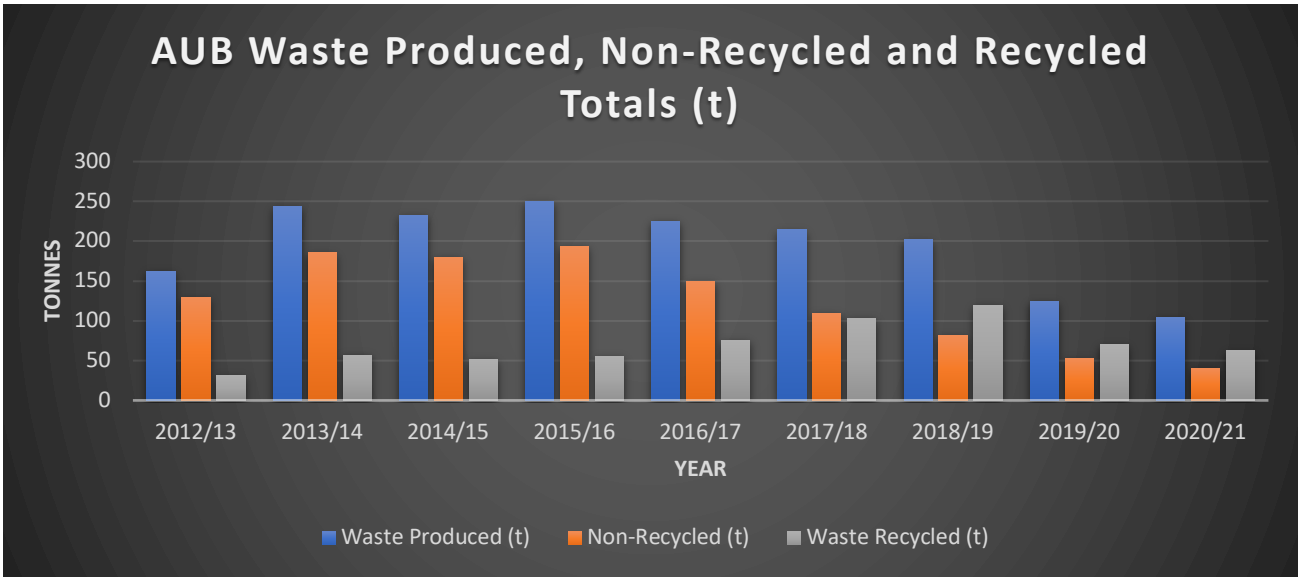


Figure 8: AUB (t) waste produced, non-recycled and recycled for 2012/13 to 2020/21.

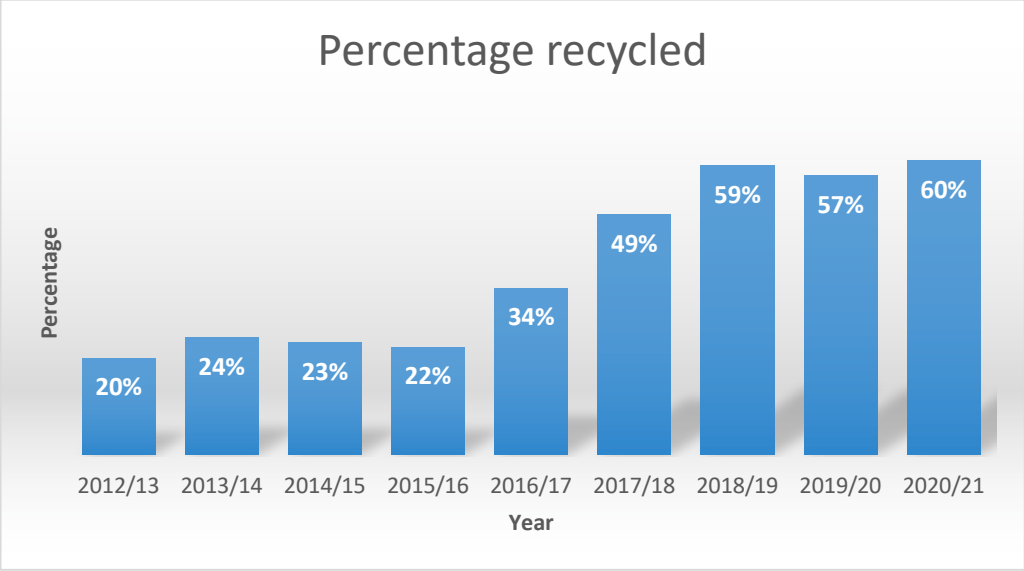


Figure 9: Recycling percentage for 2012/13 to 2020/21

Comment

- Recycling was at a record high of 60%. Campus closure will have had an impact but with percentage recycling it is difficult to assess how. The closure months for 2020/21 were some of the stronger recycling months and AUB reopened when recycling tends to worsen towards the end of the academic year.

Reducing emissions associated with travel

Objective: reduce travel emissions

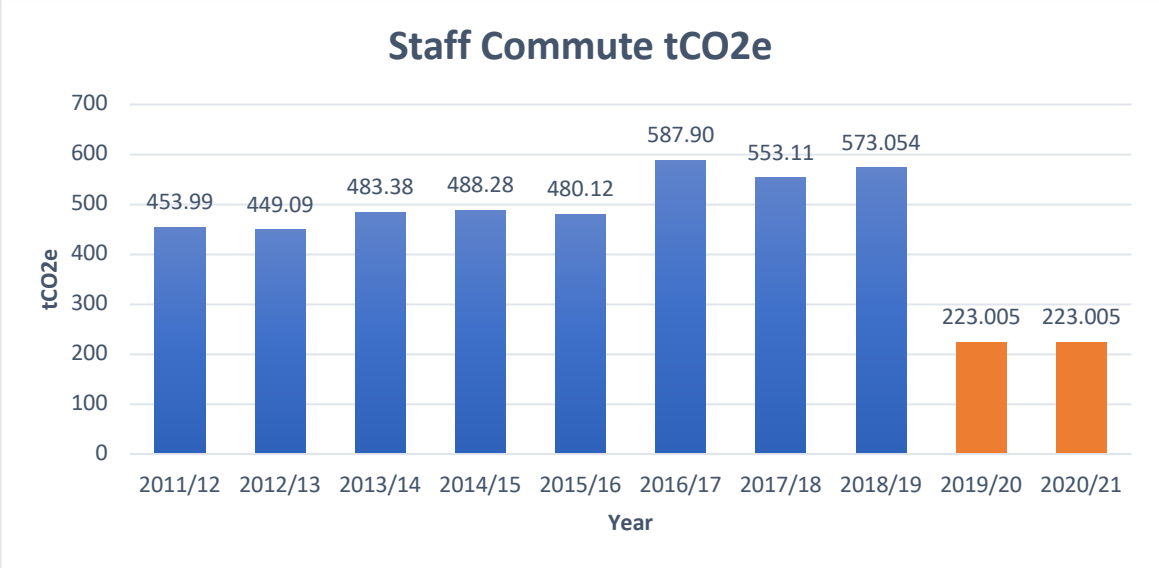


Figure 10: tCO2e staff commuting to AUB 2011/12 to 2018/19.

Comments

- There is not enough data to calculate commuting. The first lockdown (19/20) provided enough data for the year to estimate using logical inferences. Academic year 20/21 was more problematic with no fully open data at the start and then a different kind of lockdown and a partial reopening.
- It would be unhelpful (as well as inaccurate) to non-record though. So, the emissions have been set as the previous year.

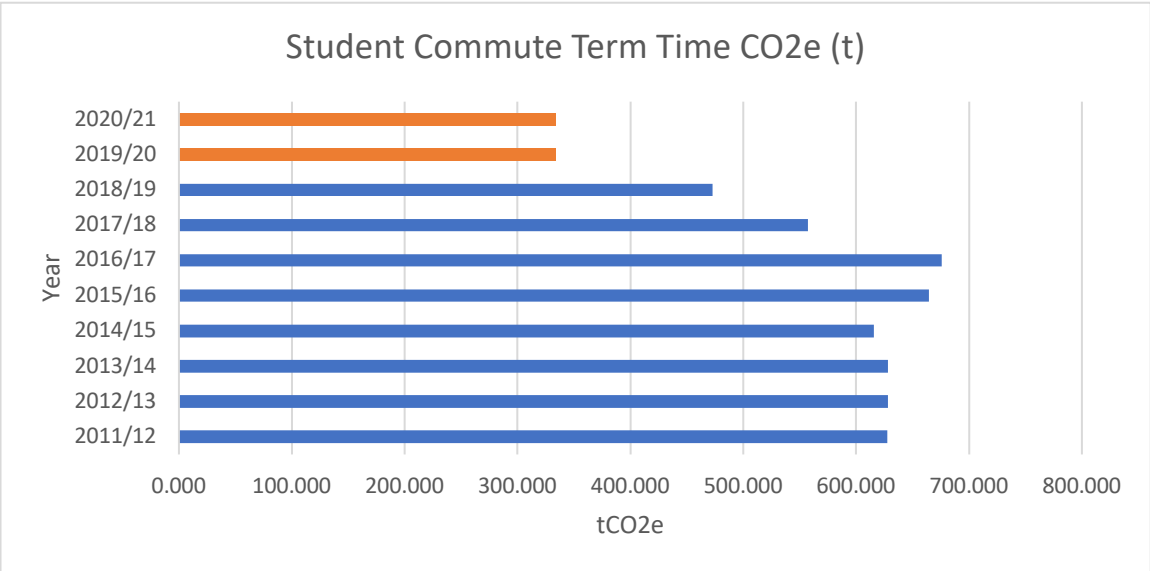


Figure 12: (t) CO2e student term time commute to AUB for 2011/12 to 2018/19.

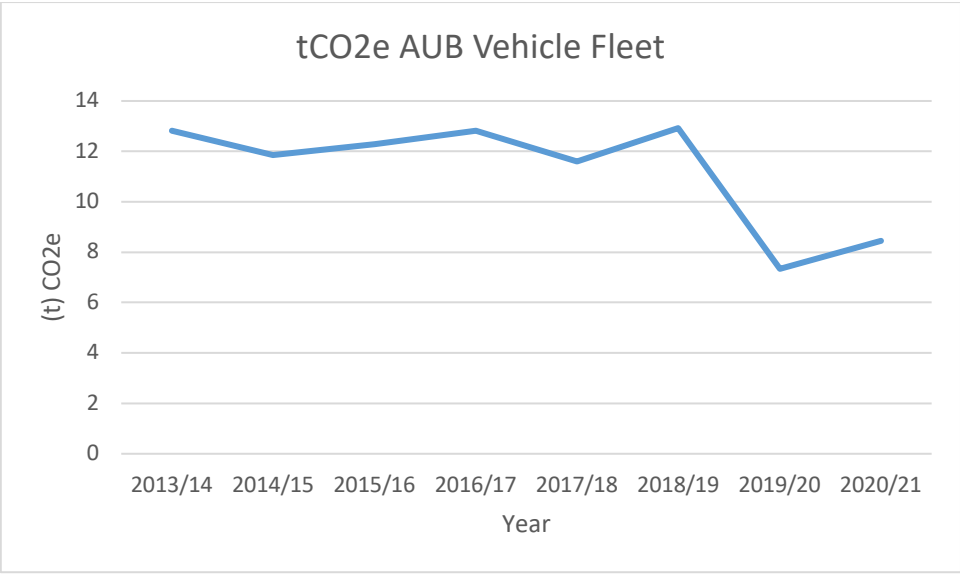


Figure 13: tCO2e AUB vehicle fleet for 2013/14 to 2018/19.

Comments

- AUB vehicle fleet emissions offset for the year saving approx. 8.5(t) CO2e.
- The electric car saved over 0.6(t) of emissions.

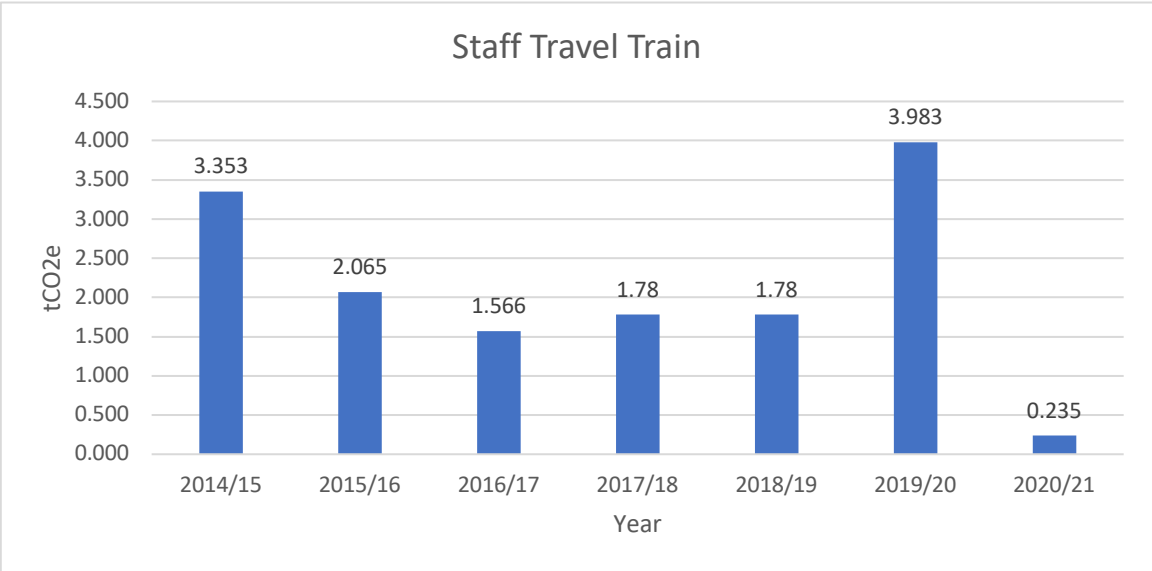


Figure 15: tCO2e from staff train travel 2014/15 to 2018/19.

Fairtrade

It has been another successful year for Fairtrade and ethical events practices.

- Fairtrade information is in key positions throughout the campus e.g., Staff Common Room. Fairtrade information is now available (as part of rolling slides) on TV screens in the main reception, in the Artsbar and in Campus Services office.
- Claire Arnott from Fairtrade gave a talk to the Environment Committee in May.
- A new 5-year SMART plan is developed with contingency until 2030 to fit with the new Sustainability and Net Zero programme of works.
- AUBSU have run Fairtrade activities during Fairtrade Fortnight and Threshers week.

- AUB Human newspaper published that celebrates social, ethical, and sustainable creative practices.
- AUB Human Earth Day promoted sustainability and ethical practices through symposium talks.