



## Environmental Impact (Negative) Headlines – April 2018

The Students' Union at UWE understands that through our operations as a charity, we will create a negative impact on the environment around us. We have started the process of analysing our impact, which will inform the creation of future Sustainability Action Plans and will focus our work with our students, staff and University colleague to reduce this impact.

As an organisation, our main impact has been evidence through energy use and utilities consumed, waste produced and the impact of creating multiple and sustained coach travel through our plethora of BUCS fixtures.

Ranked in order of impact:

			kg CO <sub>2</sub> e / kWh	Tonnes CO <sub>2</sub> equiv	
Electricity	193018.2 kWh	193018.2	0.35156	67.8574784	Higher impact
Gas	16913 m <sup>3</sup>	192176.8	0.18416	35.3912761	
Waste (cans, Plastics, paper, General, Food Waste)	50,439 kg			15.12	
BUCS Transport	25,649.20 km			8.5881	
Water treatment	1423.005 m <sup>3</sup>		0.708	1.0319029	
Water supply	1497.9 m <sup>3</sup>		0.344	0.5277648	
Paper (Excluding Large Format in Marketing) A4	42500			0.20246063	
Paper (Excluding Large Format in Marketing) A3	1000			0.009527559	Lower Impact

\*Please note: Utilities and waste data is always used from previous academic year 2016/2017 due to UWE reporting. BUCS and paper usage data is from academic year 2017/2018.

**Reducing Utilities Consumed?** In the last three academic years, The Students' Union at UWE has reduced our carbon footprint through electricity and water consumption.

We have achieved this through:

- lobbying the University to build a new Students' Union building that has been fit with eco-saving lights and sensors
- Energy saving challenges and awareness campaigns with staff and Officers as to their role to play in "embedding sustainability in all we do" as an organisation
- Replaced the IT servers resulting in an 85% reduction in the CO<sub>2</sub> emissions of our company servers.
- Changing the timings our projection screens operate (no longer weekend and evenings)
- The carbon intensity of the UK grid has decreased, resulting in the CO<sub>2</sub> from the SU electricity consumption to have also dropped.

**What more can we do?**

- Continuing staff and student engagement campaigns and water signage in the building for taps not on automatic timers
- Lobby the University to change their screen display hours in line with Student's Union activity
- Automatic computers in sleep mode for Students' Union computer machines
- Engage The new Student's Union IT Manager with UWE's Green IT policies and management team

ELECTRICITY: comparing 2014 in F block (Students' Union Floors) to 2017 in U block, there is a 17.92 Tonne CO<sub>2</sub> equiv. saving! This is equivalent to around £4k+ (elec costs and taxes).

Compare:

	Electricity (kWh)	Tonnes CO <sub>2</sub> e from electricity
SU 2014-15 SU F block	208,189	85.78
SU 2015-16 New U block	192,172	79.18
SU 2016-17 New U block	193,018	67.86

Although the Electricity use has increased between 15-16 and 17-18, the carbon intensity of the UK grid has decreased, resulting in the CO<sub>2</sub> from the SU electricity consumption to have also dropped.

Due to the Students' Union's new building, the organisation is more prominent to students and offer meeting and events spaces, making us more utilised by students. This has enabled us to better achieve our charitable aims and to organise larger equality and diversity campaigns and events within our space. Even though the building is used more by students, we are still making an energy saving on two utilities.

To add some additional context to the increase of the electricity usage, we can analyse how much the U block space is used via a report from our booking system.

From 1<sup>st</sup> Sept 2016 - 31<sup>st</sup> March 2017 there was a total of 436 days, 23 hours, 30 minutes

From 2<sup>nd</sup> Sept 2017 – 31<sup>st</sup> March 2017 there was a total of 945 day, 23 hours

It is clear that the record space usage has doubled yet the electrical usage has not increase significantly.

WATER: Comparing 2014 with 2016, there is a 1,044m3 water saving. This is equivalent to around £1,830.

Compare:

	Water supply (m3)	Water treatment (m3)	Total CO2e from water
SU 2014-15 F block	2578.32	2449.40	<b>2.62</b>
SU 2015-16 New U block	1534.20	1457.49	<b>1.56</b>
SU2016-17 New U Block	1497.9	1432.005	<b>1.52</b>

Please find attached the spreadsheet from UWE's Energy Team detailing the reduction over the last three year period of both water and electricity utilities. We are unable to report on a gas comparison as the boiler that supplies heating / hot water for F-block also supplies other areas, so it is not so easy to see what The Students' Union "consumed".

		2015/2016	2015/2016	2015/2016	2015/2016	2016/2017	2016/2017	2016/2017	2016/2017
			Equiv in kWh	kg CO2e / kWh	Tonnes CO2equiv		Equiv in kWh	kg CO2e / kWh	Tonnes CO2equiv
Gas	m3	16645	181245.5556	0.183996818	33.348606	16913	192176.8	0.18416	35.3912761

Our gas usage has stayed fairly constant over the last two years, does show a slight increase.

**Waste Reduced?** The waste collected in 2016/2017 has increased from 2015/2016. Food waste has gone down, due to large student engagement events - BYOB

**What are we doing to reduce waste sent to Landfill?** The University are separating cans, plastics, food waste, glass, paper & cardboard. We are also sending unsorted waste to a treatment facility to further extract resource from the material. We have put the correct recycling points at strategic locations to make it easy for all staff to use and embedded into procedures for commercial areas. We also have waste prevention initiatives with students including the annual Bristol Big Give and 20p off hot drinks for bringing a reusable cup.

**What more can we do?**

- In 2018/2019, we will work more closely with BRL to collaboratively reduce our waste
- Reducing food waste from events through the new events booking process
- Increasing the discount for bringing own coffee mug on campus
- Increased promotion of reusable water bottles, reusable coffee cups, water fountains on campus and discounts available
- Investigate zero waste shop outlets with new Student Officers and zero plastic aisles
- As of April 2018 we have changed supplier to take away plastic from sandwich packaging

\*NB The totals shown above are for car park 28 bin store, which includes inputs from Bristol Robotics Laboratory. General waste is not sent directly to landfill but to a treatment facility where further resource is extracted from the material. Approx. 15% of the general waste is landfilled

Total waste collected from cp28 during 2016/17 = 50.4 tonnes, and increase on the 35.9 tonnes in 2015/2016.

Cans & plastic:	3,944kg – an increase
Food waste:	2,822kg – a decrease
General waste:	29,986kg – an increase
Glass:	2,709kg – an increase
Paper & card:	10,977kg – an increase

Waste mass from carpark 28\* (2015/16):

Cans & Plastics	1,557kg
Food Waste	3,968kg
General Waste	21,760kg
Glass	1,517kg
Paper & Card	7,101kg

**Reducing printing?** We have reduced A4 paper consumer by 4,500, reduced the number of elections newspapers ordered by 500 copies, reduced the student newspaper from 6,000 copies to 1,500 A6 magazines.

Over the last year we have made many operational changes to reduce the amount of printing by staff e.g.:

- Student Staff Timesheets have gone line – students would print weekly timesheets to submit, these are all electronic
- Contracted staff have access to a PeopleHR system whereby items such as holiday cards/requests, 1:1 notes, performance appraisal and certificates can be completed digitally without any need to print
- Printers are set to automatically print double sided
- When staff members send items to print, they have to enter their code after hitting print, this gives staff a second opportunity to cancel their printing, and printing cannot be accidental. New codes have been produced in January 2018 to ensure accurate readings for departments
- Students have to request for a printed certificate for Awards Season, we do not automatically print
- Laptops for Officers to reduce need for printed papers for Board meetings
- Investment in laptops for key members of staff that travel from site and attend many meetings. No meeting notes need to be printed
- Check lists at Reception are laminated – one sheet replaces the weekly checklist
- Reception cashing up not has reusable cashing up bags rather than using an individual envelope each day
- The IT Team has reduced its paper consumption by approximately 60% over the last 2 years, favouring paperless options for most situations.
- In January 2018, the Buildings department invested in two iPad stands for staff to book out and use via the room booking system, so far this has been successful in reducing printing as it has been used for survey based activities

Finance from their 1/3 printing saving this academic year so far (past savings):

- Have saved 0.72 of a single tree
- This is 72% of a single tree
- This means that an extra 15.7kg CO2 has been absorbed from the earth's atmosphere this year.

#### **What more can we do?**

- Online Events Booking System & Online Driver registration forms. The planning for this is taking place now, ready for launch in the beginning of September 2018
- Staff claims process with go paperless
- Monthly paper reporting to the Managers Meeting to continue accountability and awareness raising

2018-2019 Future Saving + Staff claims process (future projected savings). These will save:

- 0.57 of a single tree
- This is 57% of a single tree

This means that an extra 12.4kg CO<sub>2</sub> will be absorbed from the earth's atmosphere our duration of one year from our projected savings.

Paper weight source

1 sheet a4 paper = 0.0044kg

Source for paper co<sub>2</sub> data

1.1 tons co<sub>2</sub>e are produced for every ton (1016kg) paper produced

<b>Carbon emissions from 1 piece a4 paper TCO<sub>2</sub>e</b>	4.76378E-06
<b>Carbon emissions from 1 piece a3 paper TCO<sub>2</sub>e</b>	9.52756E-06

### **BUCS Transport?**

The sports teams collectively travelled 25,649.20km in 2017-2018 compared to 17,874.74km in 2016-2017. This total distance travelled for BUCS in one year is the same as driving over half way round the circumference of the earth. BUCS travel has the equivalent emissions to a single passenger flying from London to New York 11 times.

This depends on the location of the fixtures on a yearly basis and if teams qualify for later rounds in competitions.

### **What more can we do?**

- Investigate Electric Coach and minibus companies
- Encourage the sports teams to fundraise to 'off-set' their carbon footprint with The Converging World, tackling deforestation issues
- Continue to promote the Greener Futures Sports and Societies Award to reward and encourage sustainable travel to training
- Explore the issue with other Students' Union through BUCS conference in Summer 2018 to share best practise in the sector