

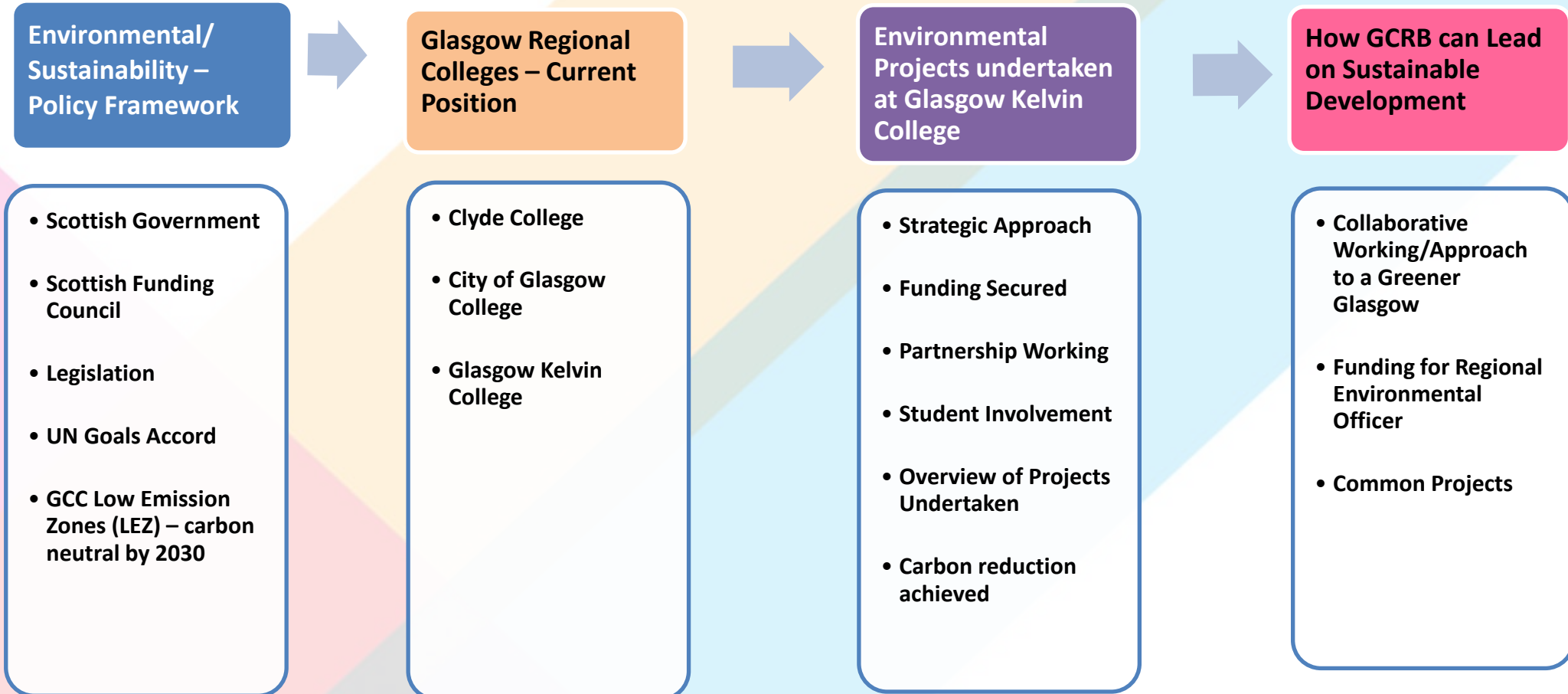


Sustainability and the Climate Emergency

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15 January 2020 – GCRB Offices

Contents



Environmental/Sustainability – Policy Framework

- Scottish Public Sector Climate Change Reports – legislation introduced Oct/Nov 2015. Requires the bodies listed in Schedule 1 to prepare reports on compliance with climate change duties imposed under (or by virtue of) section 44 of the Climate Change (Scotland) Act 2009 – including Waste Legislation.
- ‘Big Climate Conversation’ consultation document published by Scottish Government 11 September 2019.
- Scottish Government declared climate emergency in April 2019.
- SFC communication - Climate Emergency Collaboration Challenge – Call for Proposals.
- Scottish Government Climate change target announced 02 May 2019. Aim to make Scotland carbon free by 2040.
- Glasgow City Council agreed to commit to achieving a carbon neutral Glasgow by 2030.
- UN Climate Change Conference (UNFCCC COP 26) will take place in Glasgow 9-19 November 2020.



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



SUSTAINABLE DEVELOPMENT GOALS

Glasgow Regional Colleges – Extracts from Reports on Carbon Reduction

- All Glasgow Colleges submit an annual Public Sector Climate Change Report.
- Reports show that, collectively, carbon has reduced by circa 4,000 tonnes of carbon emissions per annum across all Glasgow colleges since AY 2014/15.
- All colleges have carbon reduction plans to assist them to comply with Scottish Government ambitions.

College sector carbon footprint savings

City of Glasgow College

Reference Year	Year	Scope1 (fuel, vehicle emissions)	Scope2 (e.g. heating and cooling emissions)	Scope3 (all other indirect emissions)	Total	Units	Savings tCO2e	% change
Baseline carbon footprint	2015/16	2665	3199	45	5909	tCO2e		
Year 1 carbon footprint	2016/17	2331	2568	683	5582	tCO2e	327	-1.23%
Year 2 carbon footprint	2017/18	2409	2305	570	5284	tCO2e	625	-10.6%
Year 3 carbon footprint	2017/18	2214	2000	382	4596	tCO2e	1313	-22.23%

Glasgow Clyde College

Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	Savings tCO2e	(% change)
Baseline carbon footprint	2014/15	N/A	N/A	N/A	4553	tCO2e		
Year 1 carbon footprint	2015/16	N/A	N/A	N/A	3617	tCO2e	936	-20.6%
Year 2 carbon footprint	2016/17	N/A	N/A	N/A	3147	tCO2e	1406	-30.9%
Year 3 carbon footprint	2017/18	N/A	N/A	N/A	2923	tCO2e	1630	-35.9%
Year 4 carbon footprint	2018/19	N/A	N/A	N/A	2468	tCO2e	2085	-45.8%

Glasgow Kelvin College

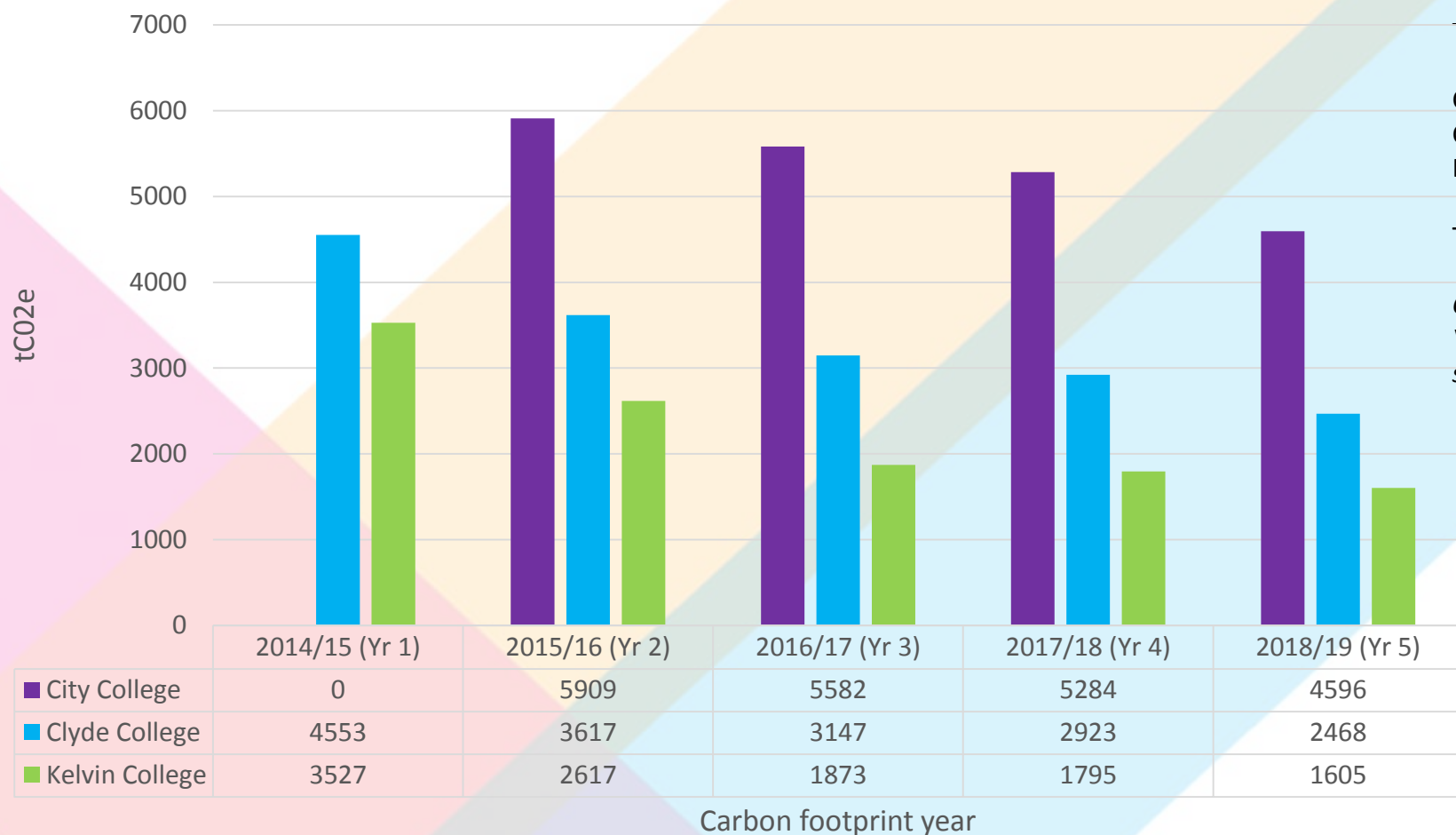
Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	Savings tCO2e	% change
Baseline carbon footprint	2014/15	1237	1913	107	3257	tCO2e		
Year 1 carbon footprint	2015/16	1132.2	1369.2	115.5	2616.9	tCO2e	640.1	-19.7%
Year 2 carbon footprint	2016/17	753.1	1021.3	99.0	1873.3	tCO2e	1383.7	-42.5
Year 3 carbon footprint	2017/18	826	837	132	1795	tCO2e	1462	-44.8%
Year 4 carbon footprint	2018/19	790	701	114	1605	tCO2e	1652	-50.7%

*Note 2014/15 was a pilot year and not all institutions submitted climate change reports to Sustainable Scotland Network (SSN).

Scope 3 emissions

Greenhouse gas emissions are categorised into three groups or 'scopes' by the most widely-used international accounting tool, the Greenhouse Gas (GHG) Protocol. Scope 1 covers direct emissions from owned or controlled sources (fuel combustion, company vehicles). Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain e.g. purchased goods and services, business travel, employee commuting, waste disposal, use of sold products, transportation and distribution, investments, leased assets and franchises.

Reduction in carbon footprint across Glasgow College sector



Total reduction

City College 21,371

Clyde College 16,708

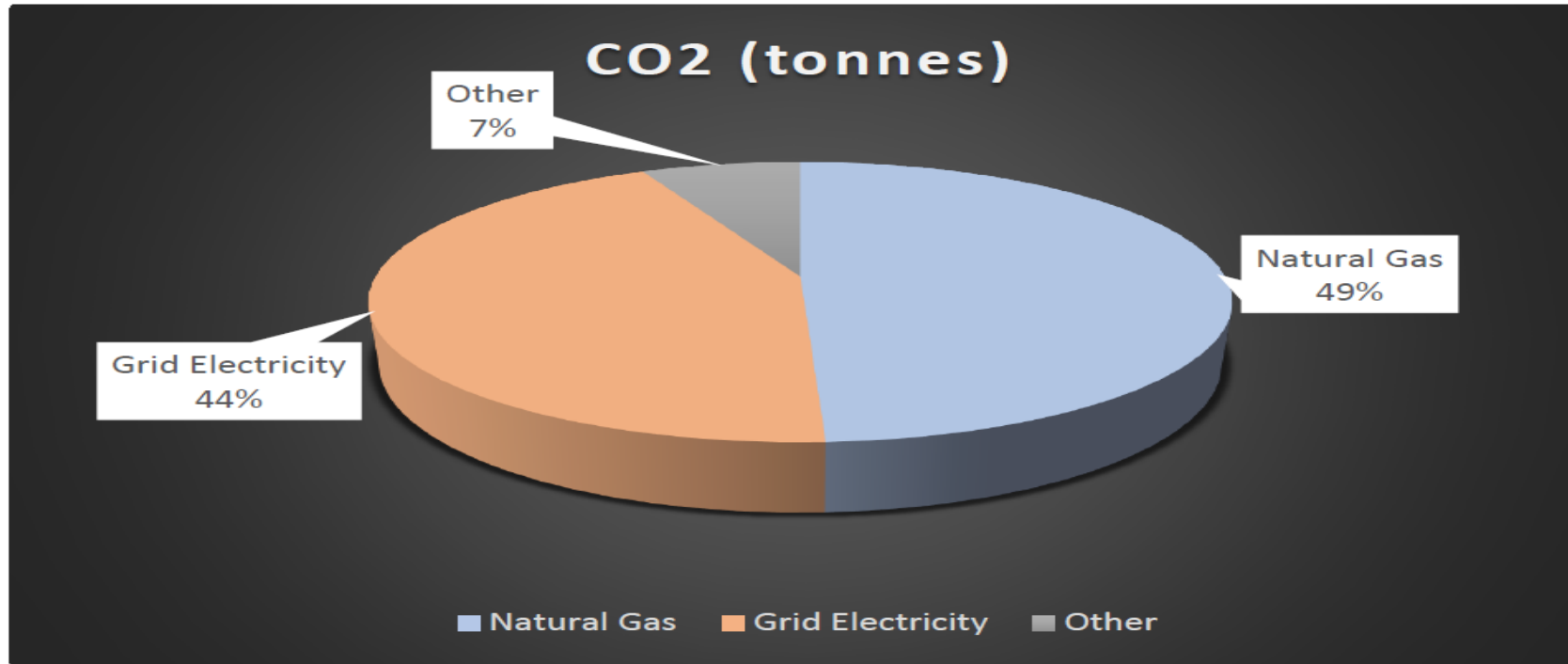
Kelvin College 11,417

Total for all Glasgow Colleges 49,496

*Comparison of Baseline footprint with Year 4 footprint shows savings across the sector of **4,405** tCO₂e.*

■ City College ■ Clyde College ■ Kelvin College

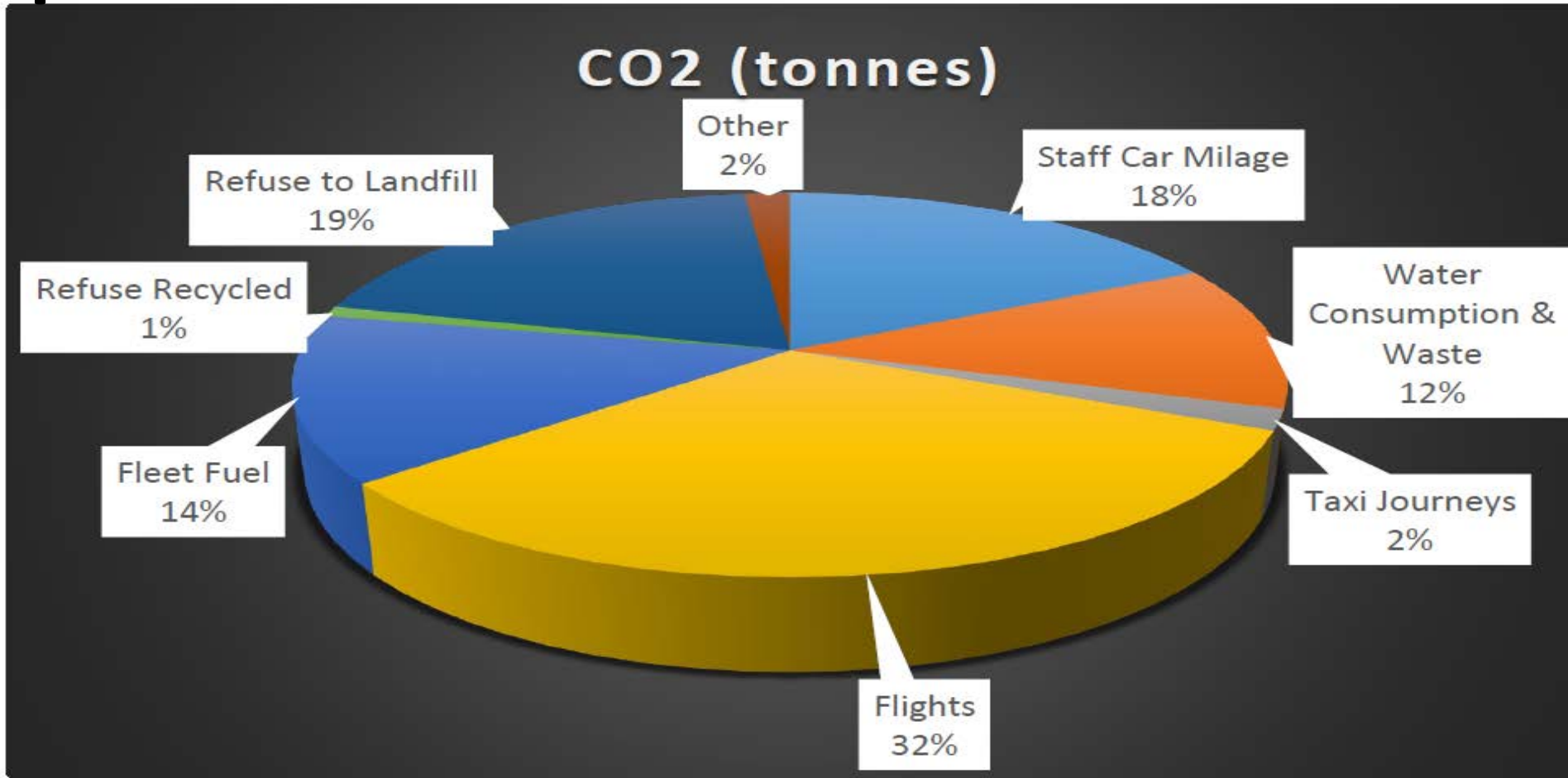
Glasgow Kelvin College – Extract from Emissions Report



Other emissions calculated by the College account for a relatively small proportion of emissions (circa 114 tonnes or 7% of the total). However, this excludes emissions from staff and student travel between College and their homes.



Glasgow Kelvin College – Extract from Emissions Report



Environmental/Sustainability in Glasgow Kelvin College - Approach

- The Senior Management Team committed to addressing the climate emergency.
- Employed a dedicated Environmental/Projects Officer to undertake this key role.
- Established a Sustainability Development Committee with resources.
- Principal signed the UN Sustainable Development Accord.
- Glasgow Kelvin College has achieved the highest reduction in emissions by a Scottish FE/HE institution (as advised by EAUC – 2019). The College Estate achieved 51% carbon reduction between 2015 and 2018.
- The Environmental/Projects Officer during his employment, secured funding of over £135,000 which has enabled the College to take forward many projects, (in some cases award-winning) which have benefitted the students, staff and communities of Glasgow. These are detailed overleaf.

Environmental Funding Secured

Projects completed at Glasgow Kelvin College via funding secured by Environmental Project Officer (the post holder has left this post - the College has been unable to fund a replacement.)

• East End Community Garden	£30,000
• Cycle Hub - Velocity	£38,000
• Orchard Project	£1,000
• The Zen and Singing Garden	£500
• Electric Vehicles	£18,000 per annum for 3 years
• Electric cycles	£12,000
• TOTAL	£135,500

Environmental Priorities for Glasgow Kelvin College

- Increase Active Travel and use of public transport across the College.
- Develop a Carbon Management Plan and a Climate Change Adaptation Strategy to further improve carbon footprint reporting, identification of climate change risks ,and subsequent mitigation strategies.
- Increase the profile of the College's Estates and Sustainable Development Committee and continue to develop the sustainability section of the College website.
- Generation of reports from the new Building Management System to target new projects/focus attention on any problem areas.
- The development and use of the East End Community Garden for student/staff/community/wildlife/insect enjoyment.
- Embed awareness of environmental/sustainability matters in College learning programmes and qualifications.

How GCRB Can Lead on Sustainable Development

Background

- The three Glasgow colleges, together, can reach a combined student population of 69,000.
- Taking into consideration the Climate Emergency along with the ambitions of Scottish Government to have a carbon free Scotland by 2040, then this must be given a firm focus. Delivery of the climate change targets will require leadership and prioritisation.
- The colleges are in a fortunate position to have such a vast student population that they can easily reach to engage to educate learners, change behaviour and influence future workforce.

How GCRB Can Lead on Sustainable Development

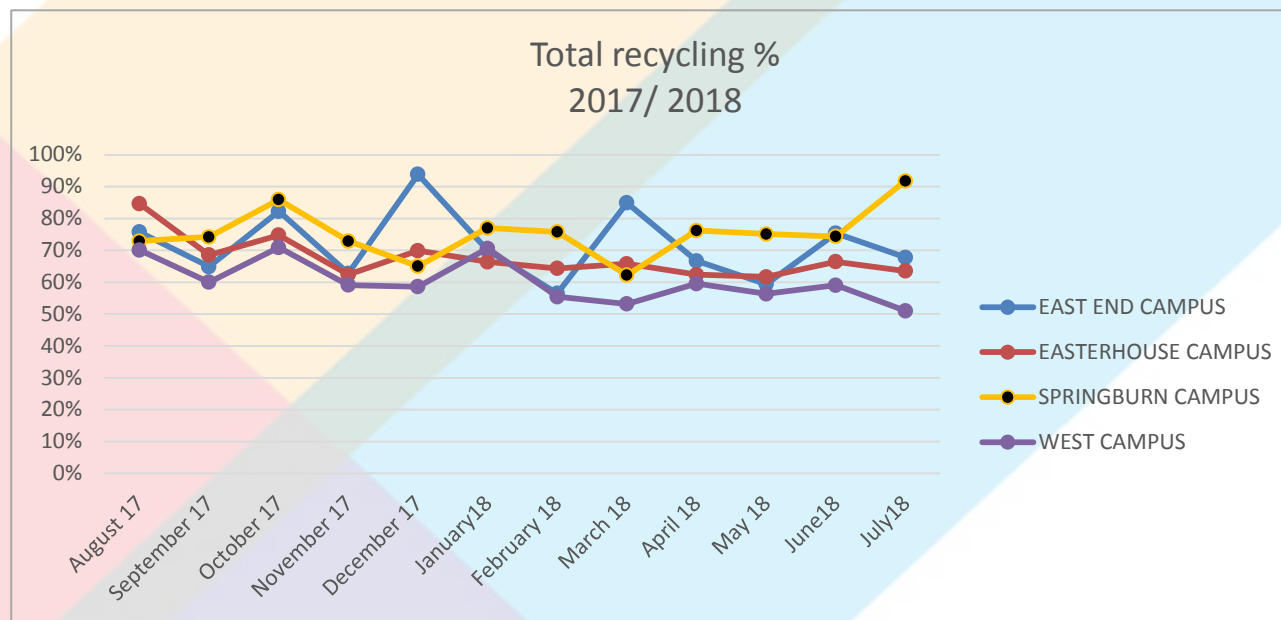
Proposal

- GCRB provides funding for an Environmental Project Officer working for the Glasgow region on projects.
- A commitment from GCRB and the three Glasgow colleges to meaningfully commit to the climate emergency now.
- Post holder to work with the three college leads to develop action plans.
- Post-holder, working with lecturing/ICT staff, develops appropriate online course content which is credited/certificated.
- There is real potential for the commercial development of the project for all three colleges.
- The environmental unit(s) can be aligned to different curriculum e.g. vehicle maintenance (electric), (throw away) fashion, pharmaceutical (impact of drugs on the sewage system) etc.
- The role of Environmental Project Officer would include:
 - Sourcing/bidding for available funds for environmental projects.
 - Working with the Students Associations.
 - Involvement in environmental projects for the benefit of Glasgow region ie car share, linked cycle paths etc.

Glasgow Kelvin College – Completed and Ongoing Projects

Waste Management

- In 2016 recycling levels were below 40% at each campus.
- Increase in number of items recycled, including items from Science, Construction and Engineering departments.
- 78.6% of waste collected is now recycled. Further reductions in the volume of waste transferred to landfill also improves the carbon emissions.



Water Management and Electric Vehicles

- **Active Water Management**

- Minimisation of water waste.
- Savings of £13,000 per annum (starting in 2016/17).
- 2.2tCO₂e savings in emissions.

- **Electric Vehicles**

- ~6000miles travelled by each van \cong 5.4tCO₂e saving compared to diesel van.
- The College is striving to replace all of its diesel vehicles with electric vehicles. Achievement rate of 50%.



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Student Involvement in Sustainability Projects

- **Student entrepreneurship – ‘Back to the Furniture’**
 - Project set up at West End Campus by students.
 - Sale of upcycled furniture at ‘pop-up-shops’.
 - Partnership set up with local furniture reuse organisation ‘Re-connect’.
- **East End Community Garden**
 - Project taking place at East End Campus – scheduled for completion spring 2020.
 - Funding secured from 2 Scottish Landfill Community Fund bodies.
 - Garden is being developed and is run in partnership with local community groups, residents, and students and staff. Enjoyment of this area already evident.
 - Support given from local housing associations.



- Back to the Furniture (West End Campus) – student group to upcycle furniture item for Velocity Cycle Hub

East End Campus Community Garden



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**Glasgow
Kelvin
College**





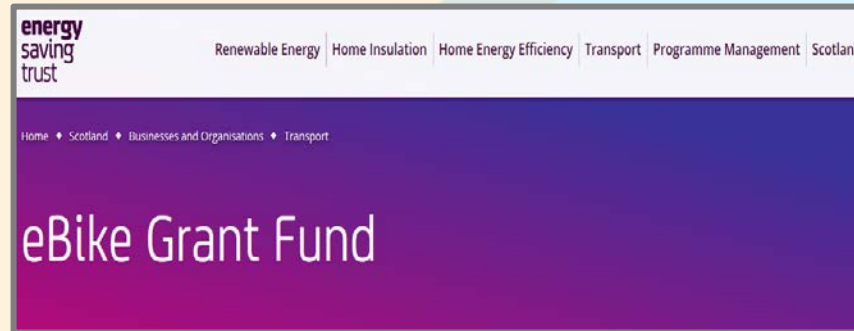
Active Travel at Glasgow Kelvin College

- **Pool Bikes and e-Bikes**

- Bike shelters installed at all College Campus buildings.
- Shower/changing facilities implemented.
- Bikes well received by students and staff.
- Active travel being actively promoted



- Successfully secured 6-pool bikes from University of Edinburgh
- To be used as part of Student Bike-Hire scheme



- Funding from Energy Saving Trust (EST)
- 3 e-Bikes; 1 e-Trike



Active Travel at Glasgow Kelvin College



- New seating and screen at Velocity cycle hub

Cycling Facilities and ongoing inquiries



- Promotion of 'Critical Mass' survey to support introduction of NextBike docking stations at Springburn campus



- New Cycle Shelters installed at all Campus buildings



Active Travel at Glasgow Kelvin College



Student and Community Engagement



- Promoting cycling within the ESOL department
- Partnership with Bike for Good



- Free training courses being organised
- Local nursery and Staff@GKC informed

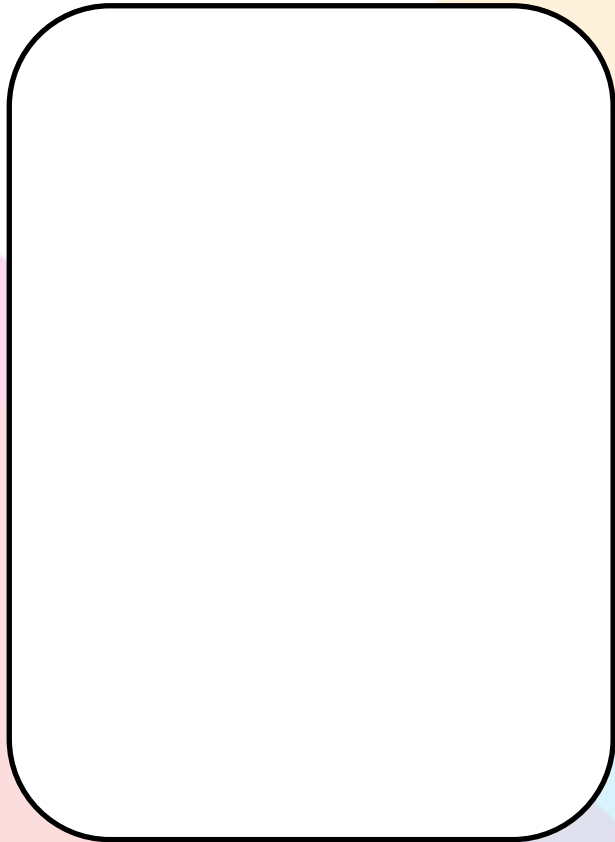


- Promoting cycling within the local community
- Sharing dates of events
- To develop activities with 'Your Space' Springburn Park youth group





Partnership Work – Student Projects

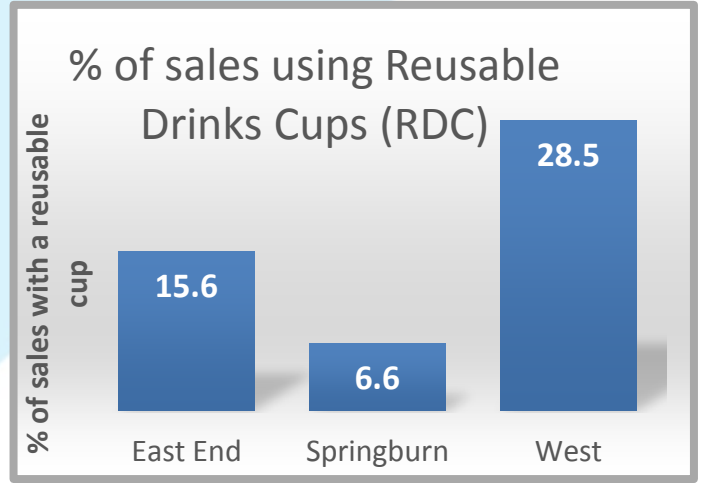


Keep Cups

- **Development of Keep Cup**

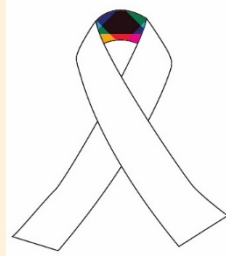
- Logo developed to promote further environmental/sustainability matters.
- Working with the Students Association to promote re-use of keep cups.

11% of all hot drinks sales with a Reusable cup





GLASGOW KELVIN
VELOCITY



WINNERS!

Student Engagement



GLASGOW KELVIN
VELOCITY

WINNERS!

Innovation in delivering a Sustainable
Education Facility

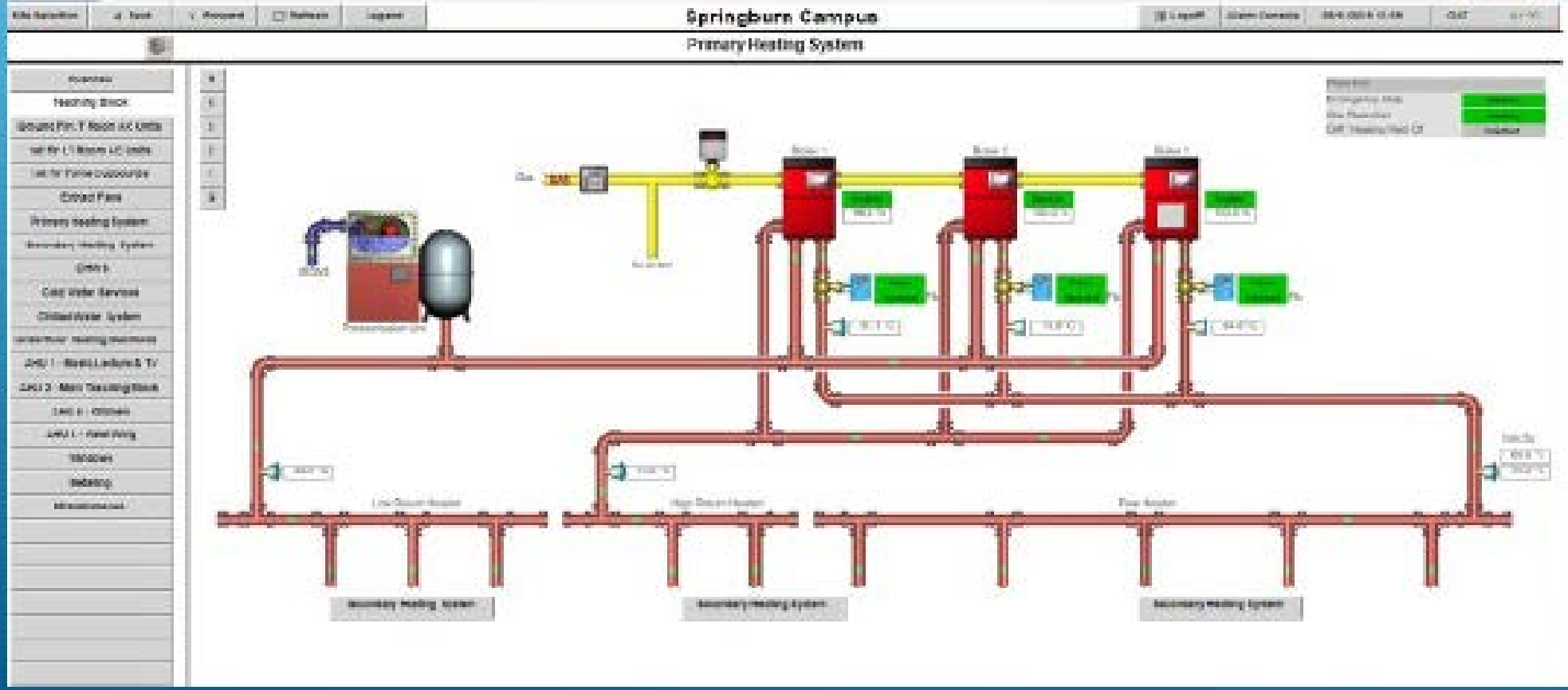


Building Management System

- A new Building Management System has been installed.
- The Building Management System will:
 - improve energy monitoring
 - enhance control of existing systems
 - allow remote monitoring and control
 - generate enhanced reports
 - highlight quickly any problem areas



SPRINGBURN CAMPUS



Thank you.