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RECOMMENDED – WIDER INFLUENCE

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PART 1: PROFILE OF REPORTING BODY

1(a) Name of reporting body
University of Glasgow

1(b) Type of body
Educational Institutions

1(c) Highest number of full-time equivalent staff in the body during the report year
8192

1(d) Metrics used by the body
Specify the metrics that the body uses to assess its performance in relation to climate change and sustainability.

Metric	Unit	Value	Comments
Floor area	m2	480991	We compare our carbon efficiency, to that of other Russell Group comparators by dividing the carbon emissions relating to our gas and electricity consumption by Gross Internal Area (GIA) in m2.

1(e) Overall budget of the body
Specify approximate £/annum for the report year.

Budget	Budget Comments
630600000	The income listed above is the consolidated income for the University and all of its subsidiaries. In addition to the numbers of staff listed above we also have 26,381 FTE students

1(f) Report year
Specify the report year.

Report Year	Report Year Comments
Academic	

1(g) Context
Provide a summary of the body's nature and functions that are relevant to climate change reporting.

The University of Glasgow has a well developed system for determining and reporting our organisational carbon emissions. Our Gilmorehill campus falls under the auspices of the EU ETS, while the remainder of our organisation falls under the auspices of the CRC Energy Efficiency Scheme. We use TEAM Sigma energy management software to collate information for both of these data returns. In addition, we report various other sources of carbon emissions (water, waste, transport [business travel and staff/student commuting]) to HESA on an annual basis.

PART 2: GOVERNANCE, MANAGEMENT AND STRATEGY

2(a) How is climate change governed in the body?

Provide a summary of the roles performed by the body's governance bodies and members in relation to climate change. If any of the body's activities in relation to climate change sit outside its own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify these activities and the governance arrangements.

UofG has developed a sustainability strategy and action plan, that was approved by University Court in summer 2016. The University is striving to adopt a whole-of-institution approach to sustainability management. Progress in this area is overseen by a sustainability working group, which has the following remit:

To oversee implementation of the University's Sustainability Strategy and Action Plan
To raise awareness of and engagement with the Strategy and Action Plan across the University community
To make recommendations about future amendments or revisions to the Strategy and Action Plan
To enhance the University's reputation and profile as an institution that is committed to the sustainability agenda
To provide reports periodically to SMG and to Court via the Estates Committee.
and the following membership:

Two co-chairs, one of whom is the Chief Operating Officer
College Sustainability Champions
University Services Sustainability Champion
Two representatives of the SRC
One senior officer from Estates & Commercial Services
Head of Procurement

In attendance:
Sustainable Environment Officer
Communications and Public Affairs Officer (as required)

2(b) How is climate change action managed and embedded by the body?

Provide a summary of how decision-making in relation to climate change action by the body is managed and how responsibility is allocated to the body's senior staff, departmental heads etc. If any such decision-making sits outside the body's own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify how this is managed and how responsibility is allocated outside the body (JPEG, PNG, PDF, DOC)

Climate change action is managed and delivered via a number of different strategies and action plans, which ensure that we secure the cooperation of relevant staff experts in addressing actions and targets.

The University of Glasgow is seeking to implement a 'whole-of-institution approach' to sustainability management, as outlined in our current Sustainability Strategy (https://www.gla.ac.uk/media/media_558384_en.pdf). The Sustainability Strategy also commits us to respecting the environment, becoming a positive force in the marketplace, understanding our impact on people and communities and sharing knowledge and best practice. A number of different strategies and action plans sit beneath the Sustainability Strategy, as described below, with their implementation overseen by our Sustainability Working Group (<https://www.gla.ac.uk/myglasgow/sustainability/sustainabilityapproach/>).

Our Energy Strategy (https://www.gla.ac.uk/media/media_620776_en.pdf) commits us to reducing the University's carbon footprint by 20% with respect to the 15/16 figure (69,591 tonnes CO2e), with a target of 55,500 tonnes CO2e per annum by 20/21. In order to meet this target, the Energy Strategy must deliver ~6,000 tonnes CO2e emissions savings per annum, while also ensuring that we continue to provide a reliable and resilient energy supply to our estate. Effective implementation of both our Strategic Travel and Transport Plan (https://www.gla.ac.uk/media/media_462432_en.pdf) and our Waste Management Strategy and Action Plan (https://www.gla.ac.uk/media/media_597483_en.pdf) will be required in order to realise an additional 3,000 tonnes CO2e emissions savings per annum. We anticipate that additional emissions reductions will also come from grid decarbonisation and from the rationalisation of our estate, as we progress with the redevelopment of our Gilmorehill campus.

As we embark on our ambitious redevelopment of the former Western Infirmary site (<https://www.gla.ac.uk/myglasgow/campusdevelopment/>) we will ensure that our new buildings are delivered to the highest standard, with designs based on established methods of sustainable construction and whole life costing principles, in order to minimise energy consumption and carbon emissions. All new build developments will be required to achieve a minimum BREEAM rating of "Excellent" and EPC "A" rating. We have also developed a soft landings strategy (https://www.gla.ac.uk/media/media_575779_en.pdf), to ensure that new buildings perform according to their original design.

Furthermore, the University also has a well-developed Biodiversity Strategy and Action Plan (https://www.gla.ac.uk/media/media_586161_en.pdf) and has recently published a Climate Change Adaptation Plan (https://www.gla.ac.uk/media/media_619025_en.pdf) which describes how we will deliver a resilient estate, in the face of changing weather patterns. We also have a well-established approach to Sustainable Procurement (<https://www.gla.ac.uk/myglasgow/sustainability/sustainableprocurement/>) with a strong focus on supply chain management.

Progress with respect to action plans is monitored regularly, and reported to the Sustainability Working Group.

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2(c) Does the body have specific climate change mitigation and adaptation objectives in its corporate plan or similar document?

Provide a brief summary of objectives if they exist.

Objective	Doc Name	Doc Link
<p>SUSTAINABLE SPACES We want to do justice to the beauty, legacy and utility of our surrounding areas. We will:</p> <ul style="list-style-type: none"> -Respect and reflect the heritage, environment and communities around us. -Hold ourselves to rigorous standards of environmentally friendly and socially responsible construction. -Operate in a sustainable and environmentally and socially responsible manner. <p>In addition we aspire to having an organisational carbon footprint of 39kT by 2020 (Note: This target was set at a time when the scope of our footprint did not include Scope 3 emissions from staff/student commuting and business travel).</p>	<p>Inspiring People; Changing the World. University Strategy 2015 - 2020.</p>	<p>http://www.gla.ac.uk/media/media_410447_en.pdf</p>

2(d) Does the body have a climate change plan or strategy?

If yes, provide the name of any such document and details of where a copy of the document may be obtained or accessed.

The current University Strategy contains a target to reduce our annual carbon footprint to 39,000 ton CO2e by 2020. This target was set at a time when our annual carbon footprint was ~50,000 ton CO2e, and represented a desire to reduce emissions by ~20%. This target was also set at a time when the scope of the carbon footprint did not include emissions from either staff/student commuting or business travel and was prior to acquisition of the Western Infirmary site and approval of the Capital Plan.

Progress:

Our carbon footprint for 14/15 was 71,058 ton CO2e, for 15/16 was 69,591 ton CO2e and for 16/17 was 64,109 ton CO2e; however, each of these figures include an extra ~20,000 ton CO2e per annum from the inclusion of staff/student commuting and business travel data in the footprint.

Proposed revised target:

We are targeting an annual carbon footprint target of 55,500 ton CO2e by 20/21. This is consistent with the original desire to reduce carbon emissions by 20% over the period, based on the 15/16 total, but includes the additional impact of including staff/student commuting and business travel emissions.

Future carbon emissions:

A recent paper by the ARUP consultancy (Campus Extension Zero Carbon Options Appraisal) has projected what our annual carbon footprint might look like out to 2020/21, taking into account the revised capital plan for the WI development and the impact of future grid electricity decarbonisation. In the moderately challenging scenario, where the level of grid decarbonisation is only 75% of that anticipated, the University's annual carbon footprint is likely to be in the region of 64,500 ton CO2e by 2020/21. This leaves an emissions gap of ~9,000 ton CO2e which would require to be closed in the interim period. These carbon savings would need to come from reducing gas/electricity consumption, as well as from travel-related sources.

We have recently published an Energy Strategy and Action Plan for the University (see section 2e below) which describes how we will deliver 6000 ton CO2e savings per annum, in the coming years. The remaining 3000 ton CO2e savings is expected to come from implementation of our Strategic Travel and Transport Plan (see section 2e below).

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2(e) Does the body have any plans or strategies covering the following areas that include climate change?

Provide the name of any such document and the timeframe covered.

Topic area	Name of document	Link	Time period covered	Comments
Adaptation	Climate Change Adaptation Plan	https://www.gla.ac.uk/media/media_619025_en.pdf	2108-2028	
Business travel	Strategic Transport and Travel Plan	https://www.gla.ac.uk/media/media_462432_en.pdf	2016-2025	
Staff Travel	Strategic Transport and Travel Plan	https://www.gla.ac.uk/media/media_462432_en.pdf	2016-2025	
Energy efficiency	Energy Strategy and Action Plan	https://www.gla.ac.uk/media/media_620776_en.pdf	2018-2023	
Fleet transport	Strategic Transport and Travel Plan	https://www.gla.ac.uk/media/media_462432_en.pdf	2016-2025	
Information and communication technology	n/a	n/a	n/a	
Renewable energy	Energy Strategy and Action Plan	https://www.gla.ac.uk/media/media_620776_en.pdf	2018-2023	
Sustainable/renewable heat	Energy Strategy and Action Plan	https://www.gla.ac.uk/media/media_620776_en.pdf	2018-2023	
Waste management	Waste Management Strategy and Action Plan	https://www.gla.ac.uk/media/media_597483_en.pdf	2016-2021	
Water and sewerage	Energy Strategy and Action Plan	https://www.gla.ac.uk/media/media_620776_en.pdf	2018-2023	
Land Use	Biodiversity Strategy and Action Plan	https://www.gla.ac.uk/media/media_586161_en.pdf	2016-2021	
Other (state topic area covered in comments)	Environmental Communications Strategy	https://www.gla.ac.uk/media/media_597479_en.pdf	Ongoing	Environmental Communications Strategy

2(f) What are the body's top 5 priorities for climate change governance, management and strategy for the year ahead?

Provide a brief summary of the body's areas and activities of focus for the year ahead.

- 1- Update of Carbon Management Plan
- 2- Development of Sustainable Food Policy and Action Plan
- 3- Implementation of our Climate Change Adaptation Plan
- 4 - Implementation of our Energy Strategy and Action Plan
- 5- Pilot of Smartphone App to encourage sustainability-related behaviour changes amongst members of staff

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2(g) Has the body used the Climate Change Assessment Tool(a) or equivalent tool to self-assess its capability / performance?

If yes, please provide details of the key findings and resultant action taken.

In previous years we have used the RES tool for determining our carbon footprint; this year we have not done so. We already use the TEAM Sigma energy management software for recording electricity, gas and water consumption across our estate; these figures, along with data relating to fugitive emissions, waste and travel/transport have been entered into Section 3 below, in order to calculate our total carbon footprint for the academic year 2017/18.

2(h) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to governance, management and strategy.

The Glasgow University Environmental Sustainability Team (GUEST) is a student-led university body that provides project-based work placement opportunities to students in areas such as energy conservation, recycling, biodiversity, sustainable food, sustainable travel, waste management, communications and student engagement.

These projects not only play a vital role in the ongoing promotion of sustainability on campus, but also provide an opportunity for students to develop both professionally and personally, while contributing to the everyday functioning of the University.

Approximately 10 paid placements are available each year; students work for 12 hours per week over a period of 20 weeks. In addition GUEST also offers the opportunity for interns to work on its projects on a voluntary basis.

PART 3: EMISSIONS, TARGETS AND PROJECTS

3a Emissions from start of the year which the body uses as a baseline (for its carbon footprint) to the end of the report year

Complete the following table using the greenhouse gas emissions total for the body calculated on the same basis as for its annual carbon footprint /management reporting or, where applicable, its sustainability reporting. Include greenhouse gas emissions from the body's estate and operations (a) (measured and reported in accordance with Scopes 1 & 2 and, to the extent applicable, selected Scope 3 of the Greenhouse Gas Protocol (b)). If data is not available for any year from the start of the year which is used as a baseline to the end of the report year, provide an explanation in the comments column.

(a) No information is required on the effect of the body on emissions which are not from its estate and operations.

Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	Comments
Baseline carbon footprint	2014/15	15737	32343	15537	63617	tCO2e	
Year 1 carbon footprint	2015/16	18534	26799	24257	69590	tCO2e	With respect to the previous year, Scope 1 emissions have increased as a result of the installation of a gas-fired CHP engine. Scope 2 emissions have decreased, in part, because we are now generating some of our own electricity via CHP and in part because of the decarbonisation of the national grid. Scope 3 emissions have increased, based on data from an updated staff/student travel survey and due to an enhanced ability to collect data relating to business travel.
Year 2 carbon footprint	2016/17	20376	20526	23207	64109	tCO2e	
Year 3 carbon footprint	2017/18	21230	14675	25579	61484	tCO2e	

3b Breakdown of emission sources

Complete the following table with the breakdown of emission sources from the body's most recent carbon footprint (greenhouse gas inventory); this should correspond to the last entry in the table in 3 (a) above. Use the 'Comments' column to explain what is included within each category of emission source entered in the first column. If, for any such category of emission source, it is not possible to provide a simple emission factor(a) leave the field for the emission factor blank and provide the total emissions for that category of emission source in the 'Emissions' column.

Total	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
61484.2		Grid Electricity (generation)	Scope 2	51202943	kWh	0.28307	kg CO2e/kWh	14494.0	non-residential electricity
		Grid Electricity (transmission & distribution losses)	Scope 3	51202943	kWh	0.02413	kg CO2e/kWh	1235.5	non-residential electricity
		Natural Gas	Scope 1	105731536	kWh	0.18396	kg CO2e/kWh	19450.4	non-residential gas, including CHP
		Water - Supply	Scope 3	321669	m3	0.344	kg CO2e/m3	110.7	non-residential water

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3b Breakdown of emission sources									
Complete the following table with the breakdown of emission sources from the body's most recent carbon footprint (greenhouse gas inventory); this should correspond to the last entry in the table in 3 (a) above. Use the 'Comments' column to explain what is included within each category of emission source entered in the first column. If, for any such category of emission source, it is not possible to provide a simple emission factor(a) leave the field for the emission factor blank and provide the total emissions for that category of emission source in the 'Emissions' column.									
Total	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
61484.2		Water - Treatment	Scope 3	305585	m3	0.708	kg CO2e/m3	216.4	non-residential water
		Biomass (Wood Pellets)	Scope 1	77.25	tonnes	70.47328	kg CO2e/tonne	5.4	non-residential biomass
		Fuel Oil	Scope 1	336425.95	kWh	0.26831	kg CO2e/kWh	90.3	non-residential heating oil
		Refuse Municipal to Landfill	Scope 3	859.22	tonnes	586.5313	kg CO2e/tonne	504.0	non-residential waste
		Mixed recycling	Scope 3	310.1	tonnes	21.3842	kg CO2e/tonne	6.6	non-residential waste
		Organic Food & Drink AD	Scope 3	48.7	tonnes	21.3842	kg CO2e/tonne	1.0	non-residential waste
		Glass Recycling	Scope 3	36.18	tonnes	21.3842	kg CO2e/tonne	0.8	non-residential waste
		Organic Garden Waste Composting	Scope 3	362.27	tonnes	10.2586	kg CO2e/tonne	3.7	non-residential waste
		WEEE (Mixed) Recycling	Scope 3	81.74	tonnes	21.3842	kg CO2e/tonne	1.8	non-residential waste
		Clinical Waste - Yellow Stream	Scope 3	57.34	tonnes	297	kg CO2e/tonne	17.0	non-residential waste
		Grid Electricity (generation)	Scope 2	640149	kWh	0.28307	kg CO2e/kWh	181.2	residential electricity
		Grid Electricity (transmission & distribution losses)	Scope 3	640149	kWh	0.02413	kg CO2e/kWh	15.5	residential electricity

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3b Breakdown of emission sources									
Complete the following table with the breakdown of emission sources from the body's most recent carbon footprint (greenhouse gas inventory); this should correspond to the last entry in the table in 3 (a) above. Use the 'Comments' column to explain what is included within each category of emission source entered in the first column. If, for any such category of emission source, it is not possible to provide a simple emission factor(a) leave the field for the emission factor blank and provide the total emissions for that category of emission source in the 'Emissions' column.									
Total	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
61484.2		Natural Gas	Scope 1	5141993	kWh	0.18396	kg CO2e/kWh	945.9	residential gas
		Water - Supply	Scope 3	2729.62	m3	0.344	kg CO2e/m3	0.9	residential water
		Water - Treatment	Scope 3	2593.14	m3	0.708	kg CO2e/m3	1.8	residential water
		Petrol (average biofuel blend)	Scope 1	5862	litres	2.20307	kg CO2e/litre	12.9	university fleet vehicles
		Gas Oil	Scope 1	19870	litres	2.97049	kg CO2e/litre	59.0	agricultural vehicles
		Diesel (average biofuel blend)	Scope 1	37755	litres	2.62694	kg CO2e/litre	99.2	university fleet vehicles
		Van - Class III (1.74 to 3.5 tonnes) Diesel	Scope 1	98392	miles	0.44243	kg CO2e/mile	43.5	GUSA and SRC minibuses
		Taxi (regular)	Scope 3	245251	passenger km	0.15344	kg CO2e/passenger km	37.6	commuting only
		Motorbike - Average	Scope 3	321799	km	0.11529	kg CO2e/km	37.1	commuting only
		Light rail and tram	Scope 3	2385902	passenger km	0.03967	kg CO2e/passenger km	94.7	commuting only
		Bus (local bus, not London)	Scope 3	18193697	passenger km	0.12007	kg CO2e/passenger km	2184.5	commuting only
		Bus (local bus, not London)	Scope 3	6750	passenger km	0.12007	kg CO2e/passenger km	0.8	business travel - Tay House to Gilmorehill

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Total	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
61484.2		Rail (National rail)	Scope 3	44113024	passenger km	0.04424	kg CO2e/passenger km	1951.6	commuting only
		Average Car - Unknown Fuel	Scope 3	36214199	km	0.18064	kg CO2e/km	6541.7	commuting only
		Average Car - Unknown Fuel	Scope 3	582421	km	0.18064	kg CO2e/km	105.2	grey fleet - private car use for business purposes
		Average Car - Unknown Fuel	Scope 3	79626	km	0.18064	kg CO2e/km	14.4	international car hire
		Domestic flight (average passenger)	Scope 3	1037963	passenger km	0.29832	kg CO2e/passenger km	309.7	business travel - expenses data
		Long-haul flights (average passenger)	Scope 3	6170377	passenger km	0.21256	kg CO2e/passenger km	1311.6	business travel - expenses data
		Short-haul flights (Economy class)	Scope 3	1392465	passenger km	0.1597	kg CO2e/passenger km	222.4	business travel - University Travel Agent
		Short-haul flights (Business class)	Scope 3	29777	passenger km	0.23955	kg CO2e/passenger km	7.1	business travel - University Travel Agent
		Long-haul flights (Business class)	Scope 3	7995797	passenger km	0.47208	kg CO2e/passenger km	3774.7	business travel - University Travel Agent
		Long-haul flights (Economy Class)	Scope 3	37581867	passenger km	0.16279	kg CO2e/passenger km	6118.0	business travel - University Travel Agent
		Long-haul flights (Premium economy class)	Scope 3	2311636	passenger km	0.26046	kg CO2e/passenger km	602.1	business travel - University Travel Agent
		Rail (National rail)	Scope 3	3398101	passenger km	0.04424	kg CO2e/passenger km	150.3	business travel - University Travel Agent
		R410A	Scope 1	169	kg	2088	kg CO2e/kg	352.9	fugitive emissions - non-residential
		R407C	Scope 1	68	kg	1774	kg CO2e/kg	120.6	fugitive emissions - non-residential
		R404a	Scope 1	12.7	kg	3922	kg CO2e/kg	49.8	fugitive emissions - non-residential

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3c Generation, consumption and export of renewable energy					
Provide a summary of the body's annual renewable generation (if any), and whether it is used or exported by the body.					
Technology	Renewable Electricity		Renewable Heat		Comments
	Total consumed by the organisation (kWh)	Total exported (kWh)	Total consumed by the organisation (kWh)	Total exported (kWh)	
Biomass			370800	0	Stoker Building
Solar PV	6641	0			Mary Stewart Building
Solar PV	10509	0			Stoker Building

3d Targets										
List all of the body's targets of relevance to its climate change duties. Where applicable, overall carbon targets and any separate land use, energy efficiency, waste, water, information and communication technology, transport, travel and heat targets should be included.										
Name of Target	Type of Target	Target	Units	Boundary/scope of Target	Progress against target	Year used as baseline	Baseline figure	Units of baseline	Target completion year	Comments
Carbon Reduction Target	absolute	39000				2015/16			2020/21	We aim to reduce our carbon footprint to 39000 ton CO2e by 2020. The target was set at a time when the scope of our footprint did not include Scope 3 emissions from staff/student commuting and business travel.

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3e Estimated total annual carbon savings from all projects implemented by the body in the report year			
Total	Emissions Source	Total estimated annual carbon savings (tCO2e)	Comments
177.00	Electricity	177	Various lighting projects. LED replacement and lighting control improvement.
	Natural gas		
	Other heating fuels		
	Waste		
	Water and sewerage		
	Business Travel		
	Fleet transport		
	Other (specify in comments)		

3f Detail the top 10 carbon reduction projects to be carried out by the body in the report year											
Provide details of the 10 projects which are estimated to achieve the highest carbon savings during report year.											
Project name	Funding source	First full year of CO2e savings	Are these savings figures estimated or actual?	Capital cost (£)	Operational cost (£/annum)	Project lifetime (years)	Primary fuel/emission source saved	Estimated carbon savings per year (tCO2e/annum)	Estimated costs savings (£/annum)	Behaviour Change	Comments
Bower Building Growth Chambers	Salix	2018/19	Estimated	108780			Grid Electricity	42			
Cardiovascular Building - LED and Controls	Salix	2018/19	Estimated	148000			Grid Electricity	64			
Lilybank Gardens	Salix	2018/19	Estimated	160000			Grid Electricity	71			

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3g Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the report year				
If the emissions increased or decreased due to any such factor in the report year, provide an estimate of the amount and direction.				
Total	Emissions source	Total estimated annual emissions (tCO2e)	Increase or decrease in emissions	Comments
0.00	Estate changes			GIA of estate has increased again, with respect to last years submission. Unable to put a figure on the likely carbon impact of this increase.
	Service provision			Number of students has increased again, with respect to last years submission. Unable to put a figure on the likely carbon impact of this increase.
	Staff numbers			Number of staff has increased again, with respect to last years submission. Unable to put a figure on the likely carbon impact of this increase.
	Other (specify in comments)			

3h Anticipated annual carbon savings from all projects implemented by the body in the year ahead			
Total	Source	Saving	Comments
0.00	Electricity		0 unknown
	Natural gas		0 unknown
	Other heating fuels		0 unknown
	Waste		0 unknown
	Water and sewerage		0 unknown
	Business Travel		0 unknown
	Fleet transport		0 unknown
	Other (specify in comments)		0 unknown

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3i Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the year ahead				
If the emissions are likely to increase or decrease due to any such factor in the year ahead, provide an estimate of the amount and direction.				
Total	Emissions source	Total estimated annual emissions (tCO2e)	Increase or decrease in emissions	Comments
0.00	Estate changes			
	Service provision			
	Staff numbers			
	Other (specify in comments)			

3j Total carbon reduction project savings since the start of the year which the body uses as a baseline for its carbon footprint

If the body has data available, estimate the total emissions savings made from projects since the start of that year ("the baseline year").	
Total	Comments
2743	Based on the total reported last year (2566 ton), plus savings associated with projects in Table 3f

3k Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to its emissions, targets and projects.

The University also recognises the need to engage and educate staff and students, with respect to sustainability. We have recently developed an Environmental Communications Plan (https://www.gla.ac.uk/media/media_597479_en.pdf), have established a social media presence (Twitter: @UofGsustain) and employ 12 students to promote sustainability on campus each year, as part of our Glasgow University Environmental Sustainability Team (GUEST). The students carry out project-based work in areas such as energy conservation, recycling, biodiversity, sustainable food, sustainable travel, waste management, communications and student engagement. These projects also provide an opportunity for students to develop both professionally and personally, while contributing to the everyday functioning of the University. Finally, the University of Glasgow also offers a wide range of taught courses that related to a number of different sustainability themes (https://www.gla.ac.uk/media/media_585167_en.pdf).

PART 4: ADAPTATION

4(a) Has the body assessed current and future climate-related risks?

If yes, provide a reference or link to any such risk assessment(s).

The University has been a founding member of the Climate Ready Clyde partnership, which over the past 12 months has worked to carry out a detailed examination of future climate risks and opportunities for the Glasgow city region (Climate Risk and Opportunity Assessment for Glasgow City Region – Key findings; <http://climatereadyclyde.org.uk/category/publications/>).

Note: A technical report on the risk/opportunity assessment is also due to be published by the partnership in Nov'18, along with another report on the economic implications of climate change for the Glasgow City Region.

The University has been able to use the outputs of the risk/opportunity assessment in order to develop its own Climate Change Adaptation Plan (see Section 4b).

4(b) What arrangements does the body have in place to manage climate-related risks?

Provide details of any climate change adaptation strategies, action plans and risk management procedures, and any climate change adaptation policies which apply across the body.

The Scottish Climate Change Adaptation Programme (Scottish Government, 2014) has identified the likely consequences of climate change at a national level; these range from impacts to the natural environment (on agricultural productivity, coastal erosion and flood risk) to impacts on business (adverse effects on buildings, infrastructure and supply chains) and impacts on human health (on patterns of disease and mortality rates).

We have worked as a member of the Climate Ready Clyde partnership, to try and better understand how these more general 'national' consequences might translate into specific risks and opportunities at the Glasgow city-region level. Through a process of both literature review and evidence gathering from relevant stakeholders, the partnership has identified a list of approximately 80 potential risks and opportunities at the city-region level; roughly 30 of these are related to city-wide infrastructure, while 15 apply directly to the University of Glasgow estate and its operation.

Our Climate Change Adaptation Plan is intended to address these climate risks and opportunities and can be found at the link below:

https://www.gla.ac.uk/media/media_619025_en.pdf

4(c) What action has the body taken to adapt to climate change?

Include details of work to increase awareness of the need to adapt to climate change and build the capacity of staff and stakeholders to assess risk and implement action.

The infrastructure design for our Gilmorehill campus redevelopment is currently being developed with sustainable urban drainage in mind. The drainage scheme proposed for the masterplan has been designed to cope with an increase in peak flow rates due to climate change in line with best practice. A variety of Sustainable Urban Drainage Systems (SuDS) are proposed to mitigate flooding, attenuate surface water and to assist with natural filtration. These include tree pits with small cellular storage; permeable paving; a filter blanket; a swale or filter trench; and a SuDS basin. Moreover, the surface water strategy for the masterplan has been designed to include as many green features providing attenuation and treatment as practicable. Where possible, it is intended that all surface water will be treated at source to the necessary standards, and then attenuated to greenfield runoff rates for the 1:30 year event before discharge. It is hoped that surface water will be taken out of the combined sewer and discharged to the River Kelvin, thus reducing reliance upon the conventional combined sewer system. SuDS are not only proposed for the WI site, but potential also exists to incorporate SuDS and store surface water within the existing areas and buildings of the campus to the north of University Avenue.

It should also be noted that the University is now hosting the new National Centre for Resilience (NCR) on its Dumfries campus which will be Scotland's first resilience 'centre of excellence' focusing on natural hazards and how Scotland can become more resilient towards them. It will help improve our understanding of the impact of natural hazards, such as extreme weather events on communities, and provide support to them including practical tools kits, learning and exercise opportunities. The centre will be a national resource helping with, anticipating, and reducing problems from developing in the first place and, where they do emerge, enabling individuals and communities to recover quickly.

Through its membership of Climate Ready Clyde, the University is working to create consensus around the need to adapt in the City Region.

The University has also been represented on the Expert Working Group, convened by Adaptation Scotland, to oversee a refresh of the Public Sector Guidance on Climate Adaptation.

4(d) Where applicable, what progress has the body made in delivering the policies and proposals referenced N1, N2, N3, B1, B2, B3, S1, S2 and S3 in the Scottish Climate Change Adaptation Programme(a) ("the Programme")?

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If the body is listed in the Programme as a body responsible for the delivery of one or more policies and proposals under the objectives N1, N2, N3, B1,B2, B3, S1, S2 and S3, provide details of the progress made by the body in delivering each policy or proposal in the report year. If it is not responsible for delivering any policy or proposal under a particular objective enter "N/A" in the 'Delivery progress made' column for that objective.

(a) This refers to the programme for adaptation to climate change laid before the Scottish Parliament under section 53(2) of the Climate Change (Scotland) Act 2009 (asp 12) which currently has effect. The most recent one is entitled "Climate Ready Scotland: Scottish Climate Change Adaptation Programme" dated May 2014.

Objective	Objective reference	Theme	Policy / Proposal reference	Delivery progress made	Comments
Understand the effects of climate change and their impacts on the natural environment.	N1	Natural Environment	N1-2	<p>Our School of Geographical and Earth Sciences (Prof. James Hansom and Dr. Larissa Naylor) has carried out a wide range of research relating to the effects of climate change and impacts on the natural environment over the past year. Perhaps most important to highlight is the publication and launch of the gamechanging Dynamic Coast website (Scotland's National Coastal Change Assessment (NCCA), which contains online interactive maps of erosion affected areas and assets (www.dynamiccoast.com). It is the first national overview of coastal erosion and flooding that now forms the evidence-base for Scottish Government and local authorities coastal strategy. Past changes are projected forward to identify those lengths of coast and assets (roads, rail, houses etc.) behind the coast that are expected to be affected by future erosion. These are assessed and quantified in detail to allow evidence-based adaptational action to proceed in planning terms.</p> <p>Hansom, J.D., Fitton, J.M., and Rennie, A.F. (2017) Dynamic Coast - National Coastal Change Assessment: National Overview, CRW2014/2</p> <p>The NCCA was also mentioned several times in source documents for the Scottish Climate Change Adaptation Programme and in the Cabinet Secretary's speech at the European Climate Change Adaptation (ECCA) conference in Glasgow in mid-2017.</p> <p>Other relevant published research in this area includes the following:</p> <p>Stockamp, J., Bishop, P., Li, Z., Petrie, E.J., Hansom, J.D. & Rennie, A.F. 2016. State of the art in studies of Glacial Isostatic Adjustment for the British Isles: a literature review. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 1-26. doi:10.1017/S1755691016000074 (Land uplift needs to be accounted for in order to establish the true sea level rise rate for adaptation planning)</p>	

Fitton, J.M., Hansom, J.D. & Rennie, A.F. 2016. A National coastal erosion susceptibility model for Scotland. *Ocean and Coastal Management*, 132, 80-89. doi: [org/10.1016/j.ocecoaman.2016.08.018](https://doi.org/10.1016/j.ocecoaman.2016.08.018) (Natural erosion susceptibility is key to identifying problem areas and allowing authorities to adopt mitigation and adaptation strategies and actions to reduce risk)

Etienne, S., Hansom, J.D. and Forbes, D.L. 2016. Géomorphologie des côtes rocheuses Arctiques. In Joly, D. (ed) *L'Arctique en Mutation. Les Mémoires du Laboratoire de Géomorphologie*, Vol 46, Dinard, Chapitre 3, 39-64. (How the Arctic coast is changing with climate change, sea level, reductions in sea ice and increases in permafrost melt, all with impacts of the local communities)

Hansom, J.D., Maxwell, F., Naylor, L. and Piedra M. 2017 *Impacts of Sea Level Rise and Storm Surges due to Climate Change in the Firth of Clyde*. Scottish Natural Heritage. Commissioned Research Report No.89 (Identifies rates of climate-driven change expected in the Firth of Clyde and identifies areas where adaptation actions may prove more sustainable than the engineered alternatives)

Hansom, J.D., Fitton, J.M., and Rennie, A.F. (2017) *Dynamic Coast - National Coastal Change Assessment: Coastal Erosion Policy Context*, CRW2014/2. (A detailed review of the existing policy instruments in place relating to coastal erosion and flooding)

Brown, K., Naylor, L. A. and Quinn, T. (2017) Making space for proactive adaptation of rapidly changing coasts: a windows of opportunity approach. *Sustainability*, 9(8), 1408. (doi:10.3390/su9081408)

Fazey, I. et al. (2017) Transformation in a changing climate: a research agenda. *Climate and Development*, (doi:10.1080/17565529.2017.1301864) (Early Online Publication)

Naylor, L. A., Spencer, T., Lane, S. N., Darby, S. E., Magilligan, F. J., Macklin, M. G. and Möller, I. (2017) Stormy Geomorphology: geomorphic contributions in an age of climate extremes. *Earth Surface Processes and Landforms*, 42(1), pp. 166-190. (doi:10.1002/esp.4062)

Spencer, T., Naylor, L., Lane, S., Darby, S., Macklin, M., Magilligan, F. and Möller, I. (2017) Stormy geomorphology: an introduction to the Special Issue. *Earth Surface Processes*

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				and Landforms, 42(1), pp. 238-241. (doi:10.1002/esp.4065) Finally, our academic staff were also involved in the development of the Edinburgh Adapts action plan that was published in December of 2016, and took part in a NERC public engagement pilot project with Edinburgh Living Landscapes which has a video associated with it. https://www.adaptationscotland.org.uk/application/files/5514/7940/1819/Edinburgh_Adapts_Adaptation_Action_Plan_Final_For_Web.pdf https://edinburghlivinglandscape.org.uk/project/grey-to-green/	
Support a healthy and diverse natural environment with capacity to adapt.	N2	Natural Environment		n/a to University of Glasgow	
Sustain and enhance the benefits, goods and services that the natural environment provides.	N3	Natural Environment		n/a to University of Glasgow	
Understand the effects of climate change and their impacts on buildings and infrastructure networks.	B1	Buildings and infrastructure networks		n/a to University of Glasgow	
Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure.	B2	Buildings and infrastructure networks		n/a to University of Glasgow	
Increase the resilience of buildings and infrastructure networks to sustain and enhance the benefits and services provided.	B3	Buildings and infrastructure networks		n/a to University of Glasgow	

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4(d) Where applicable, what progress has the body made in delivering the policies and proposals referenced N1, N2, N3, B1, B2, B3, S1, S2 and S3 in the Scottish Climate Change Adaptation Programme(a) ("the Programme")?					
If the body is listed in the Programme as a body responsible for the delivery of one or more policies and proposals under the objectives N1, N2, N3, B1,B2, B3, S1, S2 and S3, provide details of the progress made by the body in delivering each policy or proposal in the report year. If it is not responsible for delivering any policy or proposal under a particular objective enter "N/A" in the 'Delivery progress made' column for that objective.					
(a) This refers to the programme for adaptation to climate change laid before the Scottish Parliament under section 53(2) of the Climate Change (Scotland) Act 2009 (asp 12) which currently has effect. The most recent one is entitled "Climate Ready Scotland: Scottish Climate Change Adaptation Programme" dated May 2014.					
Objective	Objective reference	Theme	Policy / Proposal reference	Delivery progress made	Comments
Understand the effects of climate change and their impacts on people, homes and communities.	S1	Society		n/a to University of Glasgow	
Increase the awareness of the impacts of climate change to enable people to adapt to future extreme weather events.	S2	Society		n/a to University of Glasgow	
Support our health services and emergency responders to enable them to respond effectively to the increased pressures associated with a changing climate.	S3	Society		n/a to University of Glasgow	

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4(e) What arrangements does the body have in place to review current and future climate risks?

Provide details of arrangements to review current and future climate risks, for example, what timescales are in place to review the climate change risk assessments referred to in Question 4(a) and adaptation strategies, action plans, procedures and policies in Question 4(b).

As discussed in previous sections, we have recently published our first Climate Change Adaptation Plan. Our Chief Operating Officer will review progress against a range of detailed actions, annually.

As noted earlier, we are one of the founding members of the Climate Ready Clyde Initiative, with the University represented both on the CRC Board, and on the 'Risks and Opportunities' Subgroup.

Over the past 12 months the Climate Ready Clyde partnership has worked to carry out a detailed examination of future climate risks and opportunities for the Glasgow city region (Climate Risk and Opportunity Assessment for Glasgow City Region – Key findings; <http://climatereadyclyde.org.uk/category/publications/>).

Ongoing membership of the Climate Ready Clyde partnership, should provide us with insight into any additional climate risks for the City Region, as and when new evidence comes to light.

4(f) What arrangements does the body have in place to monitor and evaluate the impact of the adaptation actions?

Please provide details of monitoring and evaluation criteria and adaptation indicators used to assess the effectiveness of actions detailed under Question 4(c) and Question 4(d).

Our Chief Operating Officer is tasked with developing a mechanism for formally reviewing future climate risks and the success of mitigating actions, by July'19.

4(g) What are the body's top 5 priorities for the year ahead in relation to climate change adaptation?

Provide a summary of the areas and activities of focus for the year ahead.

Please see the detailed list of climate change adaptation actions, to be implemented over the coming year, 5 years and 10 years, at the link below.

https://www.gla.ac.uk/media/media_619025_en.pdf

4(h) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to adaptation.

n/a

PART 5: PROCUREMENT

5(a) How have procurement policies contributed to compliance with climate change duties?

Provide information relating to how the procurement policies of the body have contributed to its compliance with climate changes duties.

The University of Glasgow Procurement Policy clearly describes the role of procurement as follows:

“We will procure all goods and services with high ethical standard and focussed on social, economic and environmental considerations by applying principles of sustainable procurement”
The policy is also publically communicated through the University’s Procurement Website.

This demonstrates acting sustainably in alignment to the Public Bodies Climate Change Duties guidance document. Sustainability is one of the eight core values that are fully embedded in all aspects of our service. These are Compliance to regulation, Sustainable Procurement, Effectiveness & Efficiency, Risk Management, Performance, Brand Professionalism, Stakeholder Engagement and Brand / Professionalism.

All tendering activity carried out by the University includes the Sustainable Procurement Programme, our “Supply Chain Code of Conduct.” This covers 3 key areas across Social, Ethical & Economic and Environmental. Sustainable Procurement questions form part of the assessment criteria, which covers areas of Supply Chain Code of Conduct, community benefits, supported business; workforce matters, working with SMEs and driving compliance to the Modern Slavery Act and environmental considerations as appropriate to the buying need.

The Procurement Policy also includes guidance on each stage of the procurement journey. This includes assessment of environmental sustainability and social factors including community benefits requirements at start of procurement process for data gathering, tender strategy and also in further stages such as tender criteria and ongoing supplier relationship management.

The University has updated its Procurement policy in line with the Procurement Reform Act. Aspects such as impact of contract to local community, environment, promoting use of SME and supported businesses are considered before conducting a regulated procurement. The University publishes its Policy on disposal of assets including Electronic, IT and Electrical Equipment on its website and this policy is included in tender documentation.

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5(b) How has procurement activity contributed to compliance with climate change duties?

Provide information relating to how procurement activity by the body has contributed to its compliance with climate changes duties.

Procurement Policy and Procurement Strategy includes value for money at the heart of all procurement activity conducted by the University and whole life costing methodology is adopted in all tenders. This is in compliance to Public Bodies Climate Change Duties guidance as per Climate Change (Scotland) Act 2009

The University's Sustainability Strategy is supported by the Sustainability Governance Committee and executed through Sustainability Working Group which includes Sustainability Action Plan. As a member of this Board, Procurement is focussed on ensuring that our key supply chain partners are delivering value in the areas of community benefits, supported business; workforce matters, working with SMEs and driving compliance to the Modern Slavery Act. The Procurement Strategy is committed to delivering our Sustainable Procurement Objectives. The University has achieved the Chartered Institute of Procurement and Supply (CIPS) Sustainable Procurement Review GOLD award which is designed in alignment to the Scottish Government's Flexible Framework and is an external assessment process.

The University has set a robust "sustainability test" for its supply chain. The University of Glasgow has adopted a Supply Chain Code of Conduct document in alignment with the sustainable procurement programme led by Advanced Procurement for Universities and Colleges (APUC). The code of conduct is included in tendering activity and as compliance criteria for suppliers. Supplier's performance against the environmental, social, ethical and economic criteria is assessed through the Chartered Institute of Procurement and Supply (CIPS) Sustainability Index (CSI). The Index allows suppliers to obtain a rating of their performance CIPS Sustainability Index (CIPS-SI) in the areas of Economic, Social and Environmental sustainability.

The University has adopted use of Marrakech approach for categorisation of goods, services and works to identify sustainability risks within its supply chain. DEFRA tools are applied to further analyse the sustainability risks, and high risk suppliers are also measured and monitored through CIPS CSI as described above. Examples of high risk areas identified are Construction, Utilities, IT, Travel, Food, Waste Management

The University's target for FY17-18 was 100 suppliers, identified as high sustainability risk, to be CSI rated. The University currently has:

94 Suppliers with published CSI rating

Further suppliers are being identified continually through the categorisation process.

The CIPS CSI assessment includes detailed environmental questions (examples list below) and clearly identifies improvement actions where a low score is achieved.

- Has your organisation been successfully prosecuted for a breach of any environmental Laws
- Has your organisations operations ever been served with any enforcement notices by the UK Environment Agency or Environmental Protection Agency or Natural resources Agency in respect of your non-compliance of Environmental Law?
- Does your organisation embed sustainability principles such as eco design, life cycle thinking, into its product / service development process
- Does your organisation measure and report its greenhouse gas emissions? If yes give your latest measurements/reports
- Does your organisation set improvement targets to reduce your businesses greenhouse gas emissions under Scopes 1, 2 and 3? If Yes give details including time periods
- In respect of your organisations overall energy usage do you measure and report by energy source (ie. gas, electricity, oil, other) set targets for year on year reduction
- Do you make direct efforts to include/increase the use of renewables/ waste heat /
- energy from waste/cogeneration as alternative sources of energy within your organisation
- Does your organisation have a written Waste Management policy which quantifies and monitors your organisation's direct waste production and effective disposal including the promotion of reduction, reuse and recycling where possible
- Does your organisation measure ,report and set targets to systematically reduce or eliminate air, water and land pollution in your operations
- Does your organisation set annual targets to reduce its overall water usage?
- Does your organisation have a process in place to engage with / encourage your suppliers to reduce their environmental impact in the following areas: a) Carbon /energy reduction b) Waste and water management c) Sustainable sourcing
- Does your organisation have a process in place to reduce the level of packaging in products you produce and the environmental impact created by the packaging, handling and transportation of your sourced materials

5(c) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to procurement.

In addition to the above, the University's Supplier Relationship Management programme used as a contract management mechanism includes sustainability as one of the key performance indicators of realised benefits of the contract.

Procurement Office team members have attended various sustainability training sessions. Sustainability objectives are also embedded as an internal performance measure and also form part of Procurement Category Managers individual objectives in the Annual Performance and Development Review (P&DR).

Food - The University's Hospitality Team works with its food suppliers to maximise the proportion of their produce sourced sustainably. For instance KPIs have been implemented with key suppliers to measure the proportion of produce locally sourced. For instance Butcher meat is 100% Scottish produce, Poultry 100% UK and Bakery 100% UK.

Travel - Procurement office engage in quarterly performance reviews with its two nominated travel providers. Sustainability is part of the KPIs of these contracts and the travel providers report on sustainability items such as carbon usage and offset.

PART 6: VALIDATION AND DECLARATION

6(a) Internal validation process

Briefly describe the body's internal validation process, if any, of the data or information contained within this report.

We participate in both the EU ETS and the CRC Energy Efficiency Scheme. Thus Scope 1 and 2 emissions from gas and electricity consumption are regularly audited/validated externally. Emissions from Scope 3 sources are compared to those submitted previously and sense-checked through discussion with relevant University Officers.

6(b) Peer validation process

Briefly describe the body's peer validation process, if any, of the data or information contained within this report.

There is currently no peer validation process in place, but this is something we are actively considering.

6(c) External validation process

Briefly describe the body's external validation process, if any, of the data or information contained within this report.

The University participates in both the EU ETS and the CRC Energy Efficiency Scheme. Thus the recording of both electricity and gas consumption across our estate is regularly audited/validated externally. In the case of the EU-ETS, auditing is carried out by Lloyd's Register.

6(d) No validation process

If any information provided in this report has not been validated, identify the information in question and explain why it has not been validated.

n/a

6e - Declaration

I confirm that the information in this report is accurate and provides a fair representation of the body's performance in relation to climate change.

Name	Role in the body	Date
Stewart Miller	Sustainability Officer	2018-11-29

RECOMMENDED – WIDER INFLUENCE

Q1 Historic Emissions (Local Authorities only)

Please indicate emission amounts and unit of measurement (e.g. tCO2e) and years. Please provide information on the following components using data from the links provided below. Please use (1) as the default unless targets and actions relate to (2).

(1) UK local and regional CO2 emissions: **subset dataset** (emissions within the scope of influence of local authorities):
 (2) UK local and regional CO2 emissions: **full dataset**:

Select the default target dataset

Table 1a - Subset

Sector	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Units	Comments
									71058		64109	tCO2e	

Table 1b - Full

Sector	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Units	Comments

Q2a – Targets

Please detail your wider influence targets

Sector	Description	Type of Target (units)	Baseline value	Start year	Target saving	Target / End Year	Saving in latest year measured	Latest Year Measured	Comments

Q2b) Does the Organisation have an overall mission statement, strategies, plans or policies outlining ambition to influence emissions beyond your corporate boundaries? If so, please detail this in the box below.

Q3) Policies and Actions to Reduce Emissions

Sector	Start year for policy / action implementation	Year that the policy / action will be fully implemented	Annual CO2 saving once fully implemented (tCO2)	Latest Year measured	Saving in latest year measured (tCO2)	Status	Metric / indicators for monitoring progress	Delivery Role	During project / policy design and implementation, has ISM or an equivalent behaviour change tool been used?	Please give further details of this behaviour change activity	Value of Investment (£)	Ongoing Costs (£/year)	Primary Funding Source for Implementation of Policy / Action	Comments

Please provide any detail on data sources or limitations relating to the information provided in Table 3

Q4) Partnership Working, Communication and Capacity Building. Please detail your Climate Change Partnership, Communication or Capacity Building Initiatives below.									
Key Action Type	Description	Action	Organisation's project role	Lead Organisation (if not reporting organisation)	Private Partners	Public Partners	3rd Sector Partners	Outputs	Comments
Partnership Working	Board Member of Climate Ready Clyde Initiative	Partnership working of climate change or sustainability	Participant	Sniffer		Climate Ready Clyde currently involves 13 partners: <ul style="list-style-type: none"> • East Dunbartonshire Council • East Renfrewshire Council • Glasgow City Council • NHS Greater Glasgow and Clyde • North Lanarkshire Council • SEPA • SGN • South Lanarkshire Council • SPT • Transport Scotland • University of Glasgow • University of Strathclyde • West Dunbartonshire Council 		Please see Section 6 below, for further information relating to the CRC partnership.	We are investing £7,250 + VAT p.a. into the partnership.
Partnership Working	Innovation Gateway	Partnership working of climate change or sustainability	Participant	Innovation Gateway	-Tesco plc -Royal Bank of Scotland -Heathrow Airport -Kingfisher plc -L&Q (London and Quadrant) -Places for People	-University of Glasgow -Wiltshire Council -Nottingham City Council -UNITE Students		Public/private partnership that provides access to solutions and case studies around energy and resource management issues.	

OTHER NOTABLE REPORTABLE ACTIVITY

Q5) Please detail key actions relating to Food and Drink, Biodiversity, Water, Procurement and Resource Use in the table below.				
Key Action Type	Key Action Description	Organisation's Project Role	Impacts	Comments
Biodiversity	Biodiversity Strategy and Action Plan can be accessed at the link below: https://www.gla.ac.uk/media/media_586161_en.pdf	Lead	The University of Glasgow has inherited, acquired and developed a rich heritage of plant and animal life at the various semi-natural and landscaped sites it occupies. We aim to protect and enhance this heritage, for both its intrinsic value and for the wider benefits that healthy ecosystems can provide; breathable air, potable water and fertile soils.	
Procurement	Our approach to sustainable procurement is described in detail at the link below: https://www.gla.ac.uk/myglasgow/sustainability/sustainableprocurement/	Lead	We will procure goods and services with high ethical standards, focusing on social, economic and environmental considerations, by applying principles of sustainable procurement.	

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Q6) Please use the text box below to detail further climate change related activity that is not noted elsewhere within this reporting template

Please find further information below, relating to the outputs of the Climate Ready Clyde Partnership.

As part of the Climate Ready Clyde work programme, the following activities, and outputs have been delivered between November 2017 and November 2018.

Developing a climate change adaptation strategy and action plan

- Undertaken a Climate Risk and Opportunity Assessment for Glasgow City Region, with the detailed technical report and supporting materials due to published in December 2018.
- Launched the key findings and next steps from our climate risk and opportunity assessment. This involved running an event to brief senior managers and leaders from over 70 organisations operating in and across Glasgow City Region along with the Committee on Climate Change
- Secured significant national and local media coverage of our work, with articles from The Guardian, Glasgow Live, The Herald, The Evening Times and Helensburgh Advertiser.
- Completed an assessment of the economic implications of climate change for Glasgow City Region, based on the findings of the risk and opportunity assessment, as part of the EU project, Co-Assessment of Climate Change Costs (www.coacch.eu)
- Secured £15,000 from Scottish Government and commissioned a report on the Adaptation Economy for Glasgow City Region to support the main climate risk and opportunity assessment.
- Participated in the COACCH stakeholder meeting to shape new evidence on impacts and costs of climate change for Glasgow City Region
- Working in partnership with University of Edinburgh to convene infrastructure providers and mapped interdependencies in Inverclyde through a NERC-funded project.
- Collaborated with Creative Carbon Scotland to secure a place on 'Cultural Adaptations' a project using artists to advance adaptation and create adaptation strategies for the cultural sector. This will provide Climate Ready Clyde with an 'in-house artist' (equivalent to €10,000) to support development of the City Region Adaptation strategy and action plan, and shared learning from partner cities of Ghent, Dublin and Gothenburg.
- Begun 1-1 meetings with key organisations on the development of actions for the Glasgow City Region adaptation strategy and action plan, based on recommendations from the Risk Assessment process.

Impact, Influence and Engagement

We have continued to work with our stakeholders and wider organisation, both to advance the environment for adaptation, and to share our learning from a world-leading initiative:

- Collectively worked with members to input into Scottish Government's development to the second Scottish Climate Change Adaptation Programme.
 - Attended workshops with SEPA and UNEP-FI on the development of new climate financing approaches, and pushed for inclusion of adaptation
 - Submitted a written response to the development of Scotland's Environment Strategy
 - Pressed for low carbon and climate resilience to be priorities within SGNs submission to Ofgem for the RIIO-GD2 Investment period
 - Participated in the work of the International Standards Organisation on the development of adaptation, notably ISO 14091 on climate vulnerability and risk assessment.
 - Shared learning from the process of developing regional partnerships with Ireland's Climate Change Advisory Council, and at Manchester's international sustainable development conference with China.
 - Continued to represent the City Region on Adaptation Scotland's Advisory Network, and inputting more directly into the refresh of the public sector guidance
 - Participated in filming with the Open University to showcase Climate Ready Clyde as a model for sustainable development as part of their Sustainable Cities MSc.
 - Showcased 5 projects in Glasgow City Region as part of the Committee on Climate Change's project 'Adaptation in Cities – what works?' – due to be published next year.
- Technical Support and Capacity Building
- Provided advice, support and challenge for the development of adaptation strategies for East Renfrewshire Council, SPT, East Dunbartonshire Council, Glasgow City Council and University of Glasgow.
 - Worked with SPT and the Clyde Marine Planning Partnership on emerging regional strategies including the Regional Marine Plan and Regional Transport Strategy.
 - Hosted a local authority forum for exchanging learning about the process of developing adaptation strategies
 - Supported Glasgow Caledonian University to undertake their first adaptation workshop and begin thinking through adaptation issues.
 - Worked to develop organisation's and individuals' understanding of Climate Justice, including running a training workshop in January, and participating in a webinar during Climate Week.
 - Facilitated two student placements from University of Strathclyde for East Dunbartonshire Council and SPT to support progress on adaptation.
 - Developed a draft set of tools and guidance for embedding adaptation into public regeneration and the built environment, in conjunction with University of Strathclyde, University of Glasgow, Glasgow City Council and Sustrans.

Governance

- Continued to press for inclusion of adaptation in the Glasgow City Region City Deal, and began scoping potential low-regret adaptation options for inclusion as part of the May 2019 Gateway review
- Provided reports and updates to the Land Use and Sustainability Portfolio on our work, as part of establishing formal governance of adaptation at Glasgow City Region level.
- Welcomed new members SEPA and SGN to the Climate Ready Clyde board.