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RECOMMENDED - WIDER INFLUENCE

PART 1: PROFILE OF REPORTING BODY

1(a) Name of reporting body
University of Aberdeen

1(b) Type of body
Educational Institutions

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

2621

1(d) Metrics used by the bodySpecify the metrics that the body uses to assess its performance in relation to climate change and sustainability.MetricUnitValueCommentsFloor aream2198494As per HESA (16/17 return)Number of full-time studentsnumber FTS12026As per HESA (16/17 return)

Specify approximate £/annum for the report year. Budget Budget Comments The above 'total income' figure at 1e is taken from the University's Annual Report and Accounts 2017 (i.e. for 2016/17). Equivalent figures for 2017/18 will not be available until after their approval at the University Court in December 2018. The staff FTE figure at 1c is also taken from the University's Annual Report for 2016/17. Other figures at 1d are taken from the HESA return for 2016/17. This data is compiled annually and submitted in the spring after the completion of the academic year. As such, confirmed data for 2017/18 is not yet available. The floor area figure is lower than last year and is consistent with previous submissions i.e. in reflecting our non-residential estate. We have a further c.60,000m2 of residential property that is fully detailed in the annual HESA return.

1(f) Report year	
Specify the report year.	
Report Year	Report Year Comments
Academic	

ontext
,

Provide a summary of the body's nature and functions that are relevant to climate change reporting.

The University of Aberdeen is a research-intensive, ancient University with two main Aberdeen campuses at Old Aberdeen and Foresterhill.

The University has research interests, collaborative relationships, campus initiatives, and student recruitment interests around the world.

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 echnology, procurement or behaviour change), identify these activities and the governance arrangements.

The University's Strategic Plan to 2020 provides the high-level framework in which all institutional priorities are considered.

It highlights that a "sustainable physical and digital infrastructure" underpins the University's ambition.

Issues of sustainability and social responsibility are considered in the Advisory Group on Sustainability and Social Responsibility (AGSSR). It is chaired by a member of the University senior management team (currently the Director of Estates & Facilities) and includes representation from the Directorates of Finance, Estates & Facilities (inc. Campus Services) and IT Services as well as functional leads, students, and union and academic representatives. AGSSR is a working group of the University Management Group (UMG).

The University Management Group (UMG) and other senior committees (e.g. Operating Board and Court) receive occasional reports on the headline emissions, energy and waste reporting.

Management of compliance elements (e.g. waste management and emissions reporting) are overseen by our Directorate of Estates & Facilities.

The University's organisational structure is available at https://www.abdn.ac.uk/staffnet/documents/Organogram.pdf

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)

AGSSR meets regularly (usually quarterly) and as part of its work reviews, monitors and develops high-level sustainability KPIs (which reflect our organisational targets) and invites Professional Services directorates to report on local action being taken to embed sustainability (with actions that aim to address elements of sustainability in a range of areas e.g. governance, carbon management, energy efficiency, waste, water, business travel, procurement, IT, policy and more).

Alongside Estates colleagues, AGSSR has representation from several key contributing sections (e.g. Procurement, Campus Services, IT Services, People (i.e. HR)). All participate in the development and monitoring of sustainability related KPIs, while localised actions include specific commitments around their key areas of operational activity e.g. as regards the procurement Flexible Framework, Sustainable Food, and Greener ICT.

Functional responsibility for management of the Carbon Management Plan and the major strands of climate change action lie with our Directorate of Estates & Facilities (e.g. Waste, Transport, Water, Energy, Buildings).

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						
Mission includes "To build an integrated, collaborative and sustainable physical and digital infrastructure to underpin the University's ambition."	Strategic Plan 2015-2020 The Strategic plan sets the high-level mission and ambition for the University, with detailed action provided in operational plans that sit below the main strategic plan at a functional level.	https://www.abdn.ac.uk/about/strategy-and-governance/strategic-plan-20152020-735.php						
Outcome Agreement (Section 1.9) - In our Strategic Planning period 2015-2020, we aim to reduce carbon emissions by 20%, and to achieve a 4% reduction in energy consumption per m2 per annum, reflecting both international and Scottish Government targets.	Outcome Agreement (Scottish Funding Council) - 2017/18 Metrics underpinning this Aim include gross carbon footprint and associated reporting of action against Carbon Management Plan. The target for reduction is in line with the CMP i.e. 4% annually.	http://www.sfc.ac.uk/funding/outcomeagreement s/ outcome-agreements-2017- 18/university-aberdeen-oa201718.aspx						

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.

Yes. During the summer of 2016 a new CMP was drafted for the period 2016-21. It was drafted to reflect the format of the Public Sector Duties reporting and provides a project framework for action in the coming five-year period. It was formally approved during 2016/17 and is now available online at https://www.abdn.ac.uk/staffnet/documents/policy-zone-sustainability/CMP-2016_2021-Final.pdf

Our original Carbon Management Plan (2009-2014) was drafted in consultation with the Carbon Trust as part of the Universities and Colleges Climate Commitment for Scotland (UCCCFS) process.

Significant progress has been made against the targets in the plan in the first two years (see Section 3 below).

2(e) Does the body have any plans or strategies covering the following areas that include climate change?									
Provide the name of any such doc	ument and the timeframe covered.								
Topic area	Name of document	Link	Time period covered	Comments					
Adaptation	n/a	n/a	n/a	See also Q5 below. Although not publicly available - we have taken steps to assess climate change vulnerabilities (with an Estates focus).					
Business travel	Sustainable Travel Plan	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/Sustainable_Travel _Plan.pdf							
Staff Travel	Sustainable Travel Plan	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/Sustainable_Travel _Plan.pdf							
Energy efficiency	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/documents/policy-zone-sustainability/2016-SSR-EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).	Carbon Management Plan 2016/21 also refers. https://www.abdn.ac.uk/staffnet/document s/policy-zone-sustainability/CMP-2016_2021-Final.pdf					
Fleet transport	Sustainable Travel Plan	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/Sustainable_Travel _Plan.pdf	2018/22						
Information and communication technology									
Renewable energy	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/2016-SSR- EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).						
Sustainable/renewable heat	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/2016-SSR- EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).						
Waste management	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/2016-SSR- EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).						
Water and sewerage	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/d ocuments/policy-zone- sustainability/2016-SSR- EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).						
Land Use	Estates Strategy		2013/23	Development Frameworks for the two main campuses also apply.					
Other (state topic area covered in comments)	Environmental Sustainability Policy	https://www.abdn.ac.uk/staffnet/documents/policy-zone-sustainability/2016-SSR-EnviroSustPolicy-FINAL.pdf	Extant until next review (last reviewed March 2016).	Buildings (New Build, Refurbishment & Extension).					

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.

In November 2018, our incoming Principal has announced his intention to review the organisational commitment to environmental sustainability, with a short-life working group to be established to review all aspects of the sustainability agenda and make appropriate recommendations.

More generally, our operational priorities for 2018/19 are to:

1) Continue with the implementation of projects associated with the 2016-21 Carbon Management Plan;

2) Reinvigorate AGSSR after a challenging period in which reduced resource has seen us focus on operational matters e.g. energy efficiency;

3) Raise awareness across campus of our efforts to reduce carbon from energy use;

4) Further investigate the research, teaching and operational opportunities available to the University as part of the Aurora network of 9 European universities (and in which the University has taken the lead on the network's sustainability theme);

5) Review the institutional response to the emerging league table for the Sustainable Development Goals.

In addition we intend to continue recent efforts to improve engagement between academic colleagues and operational colleagues on sustainability issues. For example, in 2017/18 an MSc student undertook a practical MSc thesis that enabled the University to develop a better understanding of its use of single-use plastics in campus catering.

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.

The CCAT tool was consulted as part of the development of our latest Carbon Management Plan but was not used to conduct a formal assessment.

The CFPF tool was used to inform the revised project-based format for our Carbon Management Plan.

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.

Our Sustainable Buildings approach and associated commitments have led to a number of successful capital projects with strong sustainability credentials in recent years. Our Suttie Centre (medical teaching) and Sir Duncan Rice Library both achieved BREEAM 'Excellent', while more recently the Rowett Institute building achieved BREEAM 'Outstanding' at the design stage (with final accreditation pending). Our 2015 pre-school child-care facility for staff and students achieved Passive House certification (the first such Scottish Nursery, FE/HE or commercial building to do so) and was the first to be dual accredited as both Passive House and BREEAM 'Excellent'. It was also, in November 2016, awarded a prestigious Green Gown award [large institution] in the Built Environment category and remains a building of interest to the sector and wider community. In November 2018 it has been selected as the EAUC's Scottish 'Decade Highlight' in the built environment category.

During 2017/18 we have made further strong progress on the implementation of Carbon Management Plan projects resulting in a considerable reduction in our Scope 2 emissions (we have effectively met our 5 year target in two years). While this is in part due to improved emissions factors, absolute emissions have reduced substantially due to a range of projects including - the extensive installation of LED lighting, widespread insulation/draught proofing, and a number of critical interventions in how our CHP engine is operated. These continue to improve its efficiency and dramatically reduce associated emissions.

A change in our waste contract (shared with RGU) has further consolidated the significant reductions in emissions related to waste first seen in 16/17, with non-recyclable waste streams now sorted prior to energy recovery rather than being landfilled.

We continue to work collaboratively with other organisations in Aberdeen City to share best practice and seek mutually beneficial outcomes. We remain part of a number of key climate change and sustainability focussed initiatives in the City (and region). These include:

- "Powering Aberdeen" (Aberdeen's city-wide Sustainable Energy Action Plan).

- "North East Scotland Climate Change Partnership" (regional forum for private and public sector partners to discuss climate change issues).

- "Aberdeen Adapts" (a City-led initiative to bring key stakeholders together to increase city resilience to climate impacts).

- "GetAbout Partnership" (A network of large employers who work collaboratively to progress the sustainable transport agenda).

See also the 'wider influence' section.

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	2015/16	13094.67	12467.96	5957.53	31520	tCO2e	
Year 1 carbon footprint	2016/17	12957.79	10275.94	4754.81	27989	tCO2e	
Year 2 carbon footprint	2017/18	12577.78	7540.02	4337.21	24455	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.

otal	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
24455.0		Natural Gas	Scope 1	68139028	kWh	0.18396	kg CO2e/kWh	12534.9	
		Grid Electricity (generation)	Scope 2	16863082	kWh	0.28307	kg CO2e/kWh	4773.4	
		Grid Electricity (transmission & distribution losses)	Scope 2	16863082	kWh	0.02413	kg CO2e/kWh	406.9	
		Gas Oil	Scope 2	210608	kWh	0.27652	kg CO2e/kWh	58.2	
		LPG	Scope 2	23246	kWh	0.21448	kg CO2e/kWh	5.0	
		Water - Supply	Scope 2	231111	m3	0.344	kg CO2e/m3	79.5	

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. Comments – reason for Emission source Total Scope Consumption Units **Emission Units** Comments **Emissions** (tCO2e) difference between Q3a & factor data 24455.0 Water - Treatment 219555 m3 0.708 kg CO2e/m3 155.4 Scope 2 Purchased Heat and Steam Scope 2 10447237 kWh 0.18746 kg CO2e/kWh 1958.4 An error was identified in the conversion from kg of steam to kWh. This has been amended this year and as a result will add a greater reduction in emisisons in Scope 2 for 17/18. Distribution district heat & Scope 2 10447237 kWh 0.00987 kg CO2e/kWh 103.1 steam (5% loss) Scope 3 21.3842 kg CO2e/tonne 2.3 Clinical Waste Refuse Municipal 109.41 tonnes /Commercial /Industrial to Combustion Refuse Commercial & Scope 3 0.5 tonnes 99.7729 kg CO2e/tonne 0.1 Chemical Industrial to Landfill 21.3842 kg CO2e/tonne 0.5 Chemical Refuse Municipal Scope 3 22 tonnes /Commercial /Industrial to Combustion Scope 3 21.3842 kg CO2e/tonne 0.3 Chemical Mixed recycling 12 tonnes 6.3 Confidential Paper Paper & Scope 3 | Scope 3 21.3842 kg CO2e/tonne 296.31 tonnes Recycling 21.3842 kg CO2e/tonne WEEE (Mixed) Recycling Scope 3 6.74 tonnes 0.1 WEEE 1.37 kg CO2e/tonne 0.0 Geology Rocks Construction (Average) Scope 3 0.68 tonnes Recycling 21.3842 kg CO2e/tonne Glass Recycling Scope 3 19.78 tonnes 0.4 Glass

22.16 tonnes

21.3842 kg CO2e/tonne

0.5 Metal

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Metal Cans (Mixed) & Scope 3

Metal Scrap Recycling

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.

otal	Comments	Emission course	Casas	Computeration	l lieite	Controlog	Linita	Fueles is as	Commonto
tal	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
2445	5.0	Mixed recycling	Scope 3	54.14	tonnes	21.3842	kg CO2e/tonne	1.2	Wood
		Organic Garden Waste Composting	Scope 3	249.88	tonnes	10.2586	kg CO2e/tonne	2.6	Green
		Organic Food & Drink Composting	Scope 3	54.44	tonnes	10.2586	kg CO2e/tonne	0.6	Food
		Mixed recycling	Scope 3	237.75	tonnes	21.3842	kg CO2e/tonne	5.1	DMR
		Refuse Municipal /Commercial /Industrial to Combustion	Scope 3	368.19	tonnes	21.3842	kg CO2e/tonne	7.9	Residual
		Domestic flight (average passenger)	Scope 3	2085029.19	passenger km	0.29832	kg CO2e/passenger km	622.0	UK Domestic All three categories of flight data come with caveats. This data is based in part on estimation from staff travel claims as well as from data provided by our travel management contractor. The former data set has known limitations as i relies on staff input of mileage. while the latter is unlikely to be entirely reliable. In all three flight categories this is, therefore a best estimate based on available data, with reasonable assumptions applied. For reasons of good practice, we have chosen to include this data in our footprint boundary rather than omit it completely.
		Short-haul flights (average passenger)	Scope 3	6730900.89	passenger km	0.16236	kg CO2e/passenger km	1092.8	, ,
		International flights (average passenger)	Scope 3	12041593.61	passenger km	0.18277	kg CO2e/passenger km	2200.8	Int See note at domestic flights.
		Rail (National rail)	Scope 3	1533100.40	passenger km	0.04424	kg CO2e/passenger km	67.8	Rail

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.

Γotal	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
2445	55.0	Bus (local bus, not London)	Scope 3	133229.98	passenger km	0.12007	kg CO2e/passenger km	16.0	Bus
		Average Car - Unknown Fuel	Scope 3	1163586.12	km	0.18064	kg CO2e/km	210.2	Car Comprising staff, student, and hire ca mileage
		Ferry (Foot passenger)	Scope 3	3 29250.83	passenger km	0.018739	kg CO2e/passenger km	0.6	Ferry
		Taxi (regular)	Scope 3	101680.15	passenger km	0.15344	kg CO2e/passenger km	15.6	Taxi
		London Underground	Scope 3	18321.29	passenger km	0.0376	kg CO2e/passenger km	0.7	Underground
		LPG	Scope 3	3 192.05	litres	1.51906	kg CO2e/litre	0.3	Vehicle Fuel
		Diesel (average biofuel blend)	Scope 3	15514.10	litres	2.62694	kg CO2e/litre	40.8	Vehicle Fuel
		Petrol (average biofuel blend)	Scope 3	17039.71	litres	2.20307	kg CO2e/litre	37.5	Vehicle Fuel
		Diesel (average biofuel blend)	Scope 1	13735.07	litres	2.62694	kg CO2e/litre	36.1	Fleet Fuel
		Petrol (average biofuel blend)	Scope 1	3108.42	litres	2.20307	kg CO2e/litre	6.9	Fleet Fuel
		Bus (local bus, not London)	Scope 3	36081.72	passenger km	0.12007	kg CO2e/passenger km	4.3	Shuttle Bus

3c Generation, o	3c Generation, consumption and export of renewable energy								
Provide a summa	Provide a summary of the body's annual renewable generation (if any), and whether it is used or exported by the body.								
	Renewable Electricity Renewable Heat								
Technology	Total	Total	Total	Total	Comments				

	Renewable El	ectricity	Renewable He	eat	
Technology	Total consumed by the organisation (kWh)	Total exported (kWh)	Total consumed by the organisation (kWh)	Total exported (kWh)	Comments
Solar PV	149753	0			
Solar thermal			1715	0	

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.

confinding technology, transport, traver 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
Reduce water consumption 2% YOY	annual	2	annual % reduction	Water and sewerage	-53	2015/16	150462	M3		Baseline figure is from the 2016/2021 CMP baseline
Reduce energy consumption 4% YOY	annual	4	annual % reduction	All energy use	8.07	2015/16	10581126 2	kWh		Baseline figure is from the 2016/2021 CMP baseline
Increase waste recycled	annual	4	% increase	Waste	11					Annual increase of 11% between 16/17 (54%) and 17/18 (65%).
Reduce waste sent for disposal	annual	5	annual % reduction	Waste	24					Annual reduction of 24% between 16/17 (31%) and 17/18 (7%)

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
569.51	Electricity	163.65	24 Projects
	Natural gas	282.52	14 Projects
	Other heating fuels	0	
	Waste	101.71	1 Project
	Water and sewerage	21.63	1 Project
	Business Travel	0	
	Fleet transport	0	
	Other (specify in comments)		

3f Detail the top 10 car	bon reduction	projects to	be carried	out by t	he body in th	ne report	year				
Provide details of the 10	projects which a	are estima	ted to achiev	e the hig	ghest carbon s	savings d	uring report year.				
Project name	Funding source	full year of CO2e	savings	cost	Operational cost (£/annum)	lifetime	Primary fuel/emission source saved	per year	Estimated costs savings (£/annum)	Behaviour Change	Comments
CONTROLS - 2		2018/19	Actual	0.00			Grid Electricity	89.05	26,087.70		MRF - Change chiller controls so that the AHUs use outside air to cool supply air when outside air is below 10oC and chiller pumps turn off
HEAT - 8		2018/19	Actual	25000. 00			Natural Gas	83.83	13,670.28		Meston (Original) - Installing zone valves into the heating circuit in Meston Original
BUILDING FABRIC - 15		2018/19	Actual	27084. 00			Natural Gas	49.16	8,007.74		Wavell House - Install cavity wall insulation
BUILDING FABRIC - 9		2018/19	Actual	22206. 00			Natural Gas	40.30	6,565.49		Fyfe House - Install cavity wall insulation
BUILDING FABRIC - 25		2018/19	Actual	6809.0 4			Natural Gas	22.31	3,638.17		St Mary's - Install Draught Proofing
HEAT - 13		2018/19	Actual	11252. 40			Natural Gas	21.89	3,569.10		St Mary's - Install TRVs onto 155 radiators
EQUIPMENT - 11A & 11B		2018/19	Actual	46115. 00			Water - Supply	21.63	26955.94		Meston - Upgrade lab glass condenser cooling draiage systems
HEAT - 11		2018/19	Actual	22868. 40			Natural Gas	20.91	3409.51		Edward Wright - Install TRVs onto 315 radiators
BUILDING FABRIC - 20		2018/19	Actual	100000			Natural Gas	15.18	2475.00		MacRobert - Replace easily damaged window closers
HEAT - 12		2018/19	Actual	4356.0 0			Natural Gas	11.35	1851.07		Regent Building - Install TRVs onto 60 radiators

g Estimated decrease or increase in the body's emissions attributed to factors (not eported elsewhere in this form) in the report ear				
the emissions increased or decreased due to ny such factor in the report year, provide an stimate of the amount and direction.				
otal	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)			

3h Anticipated annual carbon savings from all projects implemented by the body in the year ahead			
Total	Source	Saving	Comments
1150.01	Electricity	557.28	Estimate based on 1/5th of CMP re- electricity specific projects not completed in 2017/2018.
	Natural gas	592.73	Estimate based on 1/5th of CMP re-gas specific projects not completed in 2017/2018.
	Other heating fuels		
	Waste	0	
	Water and sewerage		
	Business Travel	0	
	Fleet transport	0	
	Other (specify in comments)		

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

1344.78 2015/2016 submission is used as baseline year

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.

We would simply wish to highlight that after the first two years of our Carbon Management Plan, we have exceeded the reduction target for the full five year period. We acknowledge that some of this reduction reflects positive trends in terms of emissions factors, but energy efficiency and mitigation projects have played an invaluable part in this progress. Some 39 projects from our CMP project register have been completed in 2017/18.

In recognition of this progress, our Energy Management Team have received external credit for their activity. Our Energy Manager was recognised as EM of the year in 2017 by the EM's Association, with our Graduate Energy Engineer Highly Commended in the Young EM Professional category. In 2018 our Graduate Engineer won in the Young Professional category, while the EM team was Highly Commended in the 'Team' category.

We continue to identify and implement energy reduction projects and to drive further efficiencies where we can.

On a smaller but no less impressive scale, our emissions associated with waste disposal have fallen dramatically as a result of changing our procedures and contractual arrangements (as previously noted).

And finally, in reflecting on the overall emissions picture we wish to acknowledge that in common with most organisations, our Scope 3 business travel data (principally flight data) relies in part on estimation, individual reporting, and sampling - and on the accuracy of data provided by contractors. As such, there is heightened scope for reporting error in this part of the submission. We continue, however, to feel that including business travel data in our overall carbon footprint represents best practice.

PART 4: ADAPTATION

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

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

Yes, although materials are not yet online. Please see the narrative below.

During the summer of 2017, an MSc student on the University's Environmental Partnership Management (EPM) programme was based in the Estates section completing a partnership thesis to help establish an initial approach to adaptation.

As part of the thesis, a series of workshops were held with colleagues in Estates during which key climate change vulnerabilities across our campuses were discussed, mapped and assessed.

This process used as its starting point the guidance for Public Bodies in Scotland and aimed to provide key recommendations and an initial adaptation risk register around which the University could build its subsequent approach to adaptation. It's key focus was:

- 1. To examine climate change adaptation in the context of Scottish Public Bodies and the University of Aberdeen in particular.
- 2. To seek to understand the potential consequences of future climate specific to the University of Aberdeen.
- 3. To identify and prioritise ways to manage climate risks.
- 4. To provide recommendations for the implementation of practical climate adaptation measures.

The workshops identified 31 current climate issues spread across six campus locations and further sub-divided between four categories of 'issue' (buildings, people, grounds/green spaces, infrastructure). Additionally 20 potential future impacts were identified and summarised in a risk register.

The project was successfully completed, with the student's work well received by colleagues in Estates. Moreover, the submitted thesis was highly regarded by the student's academic mentors.

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 work undertaken during 2017 was considered initially by the University's Advisory Group on Sustainability and Social Responsibility (AGSSR) and was subsequently taken to the University's Business Continuity committee in early 2018.

Our Business Continuity Adviser is monitoring developments in the emerging links between the EAUC and HEBCON with a view to reflecting best practice in the sector.

Our intention is to work towards the embedding of adaptation as part of the wider institutional resilience framework.

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

nclude 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 work undertaken in the summer of 2017 represents our first concerted effort to raise awareness of adaptation more generally.

Colleagues from across Estates participated in a series of workshops that provided a context and framework around which to consider adaptation and identify current and future issues/risks. As part of this exercise we also sought to tackle misconceptions or misunderstanding e.g. making clear the differences between adaptation and mitigation.

In discussion it became clear that, in recent years, a number of important maintenance projects have taken forward 'adaptation measures' without, at the time, using that terminology (e.g. a number of roofing upgrade projects have seen guttering and pipework improved to increase the capacity of our buildings to cope with incidences of extreme weather).

As part of a major new-build project, the workshops have prompted the Projects Team to invite the Design Team to undertake an adaptation workshop as part of the ongoing design process.

4(d) Where applicable, win delivering the policies N3, B1, B2, B3, S1, S2 at Change Adaptation Programmers	s and propo nd S3 in the	sals referenced N1, N2, Scottish Climate			
If the body is listed in the Prodelivery of one or more policing N1, N2, N3, B1,B2, B3, S1, S1, S2, S3, S1, S4, S4, S5, S5, S6, S6, S6, S6, S6, S6, S6, S6, S6, S6	ies and propo S2 and S3, proin delivering e sponsible for deliberities	sals under the objectives ovide details of the ach policy or proposal in delivering any policy or			
(a) This refers to the program before the Scottish Parliame Change (Scotland) Act 2009 most recent one is entitled "C Change Adaptation Program	nt under secti (asp 12) whic Climate Ready	on 53(2) of the Climate ch currently has effect. The y Scotland: Scottish Climate			
Objective	Objective reference	Theme	Policy / Proposal reference	Delivery progress made	Comments
Understand the effects of climate change and their impacts on the natural environment.		Natural Environment			
Support a healthy and diverse natural environment with capacity to adapt.	N2	Natural Environment			
Sustain and enhance the benefits, goods and services that the natural environment provides.	N3	Natural Environment			
Understand the effects of climate change and their impacts on buildings and infrastructure networks.	B1	Buildings and infrastructure networks			
Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure.	B2	Buildings and infrastructure networks			

4(d) Where applicable, win delivering the policies N3, B1, B2, B3, S1, S2 at Change Adaptation Programmers	s and propo nd S3 in the	sals referenced N1, N2, Scottish Climate			
If the body is listed in the Prodelivery of one or more polici N1, N2, N3, B1,B2, B3, S1, S1, S2, S3, S1, S1, S1, S1, S1, S1, S1, S1, S1, S1	ies and propo S2 and S3, proint delivering e sponsible for de bbjective enter	esals under the objectives ovide details of the each policy or proposal in delivering any policy or			
(a) This refers to the program before the Scottish Parliame Change (Scotland) Act 2009 most recent one is entitled "Change Adaptation Program	nme for adapt nt under secti (asp 12) whic Climate Ready	ion 53(2) of the Climate ch currently has effect. The y Scotland: Scottish Climate			
Objective	Objective reference	Theme	Policy / Proposal reference	Delivery progress made	Comments
Increase the resilience of buildings and infrastructure networks to sustain and enhance the benefits and services provided.	B3	Buildings and infrastructure networks			
Understand the effects of climate change and their impacts on people, homes and communities.	S1	Society			
Increase the awareness of the impacts of climate change to enable people to adapt to future extreme weather events.	S2	Society			
Support our health services and emergency responders to enable them to respond effectively to the increased pressures associated with a changing climate.	S3	Society			

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).

At this stage formal arrangements and processes have yet to be finalised.

We have taken the findings of the work undertaken in the summer of 2017 to the University's Business Continuity committee (early 2018) and our intention is to embed adaptation among the other key 'resilience' issues considered by that group.

See also 4g - among the key recommendations of the work to date is the need to expand awareness of adaptation beyond Estates and, in due course to consider the wider 'adaptation' impacts that may apply to universities away from their campuses. In the first instance the main focus is, however, likely to remain on buildings and infrastructure issues.

Progress on this issue has, however, been slow due to the relative lack of capacity to take this forward.

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).

Please see 4e.

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.

As part of the work undertaken in the summer of 2017, 5 key recommendations for adaptation were identified.

These remain the priority areas for action:

- 1. Continue to work in partnership e.g. with EAUC, Adaptation Scotland and in regional bodies such as Aberdeen Adapts.
- 2. Raise awareness of adaptation to identify knowledge gaps and misconceptions (in particular among staff involved in estates and grounds).
- 3. Further identify adaptation risks by broadening the range of staff involved in adaptation workshops.
- 4. Embed adaptation as part of the institution's business continuity and resilience thinking.
- 5. Promote environmental sustainability more generally and give further consideration to appointing a senior champion for all aspects of sustainability.

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.

We were delighted to be in a position to adopt a 'living laboratory' approach to our initial development of climate change adaptation thinking in 2017.

Students from the MSc Environmental Partnership Management have now been involved over successive summers in helping establish local adaptation initiatives. In 2016 a student helped establish the Aberdeen Adapts programme (with Aberdeen City Council) and then in 2017 a student from this cohort provided the impetus and practical support necessary to engage colleagues at the University of Aberdeen in developing a framework around which we can build our approach to adaptation.

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 revised the Procurement Policy & Procedures in 2018. It was ratified by the University Court and issued to all University staff in July 2018. A section of the Policy relates to Sustainable and Socially Responsible Procurement and this is in line with the University Procurement Strategy and Action Plan (2016-2021). The strategy document is available at

https://www.abdn.ac.uk/staffnet/documents/finance-e5-other/Procurement_Strategy_and_Action_Plan_2016.pdf

The University seeks to conduct all tendering in an environmental, socially, ethically & economically responsible manner, Accordingly, for all regulated Procurements (i.e. value of £50K and over), all suppliers will be issued with the University Supply Chain Code of Conduct and asked to make a clear declaration of support.

One of our key objectives is to embed sound ethical, social and environmental policies within the University's function and to comply with relevant Scottish, UK and EU legislation in the performance of the sustainable procurement duty.

We continue to undertake that all regulated procurements will be carried out in compliance with the Sustainable Procurement Duty and are committed to utilise available tools & systems such as APUC SUSTAIN.

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.

The University Procurement Policy & Procedures advises consideration of whole life costs (from determining the need for the goods/services, through to its eventual disposal and replacement), environmental and social impacts in assessment of value for money. We follow the Scottish Government Procurement Journey and the Sustainable Procurement Duty outlined in the Procurement Reform (Scotland) Act 2014 which requires that institutions must think about how they can improve the social, environmental and economic well-being in every regulated procurement exercise undertaken.

As mentioned in previous submissions, the University of Aberdeen is a founding member of Electronics Watch and is now signed up to a consortium arrangement which grants all members of APUC (i.e. all Scottish HE/FE institutions) affiliate membership of Electronics Watch. This allows the University access to all the benefits membership to this organisation brings including access to reports and tools. Electronics Watch is an independent not for profit organisation who monitor labour standards and the environmental and social impact of making, running and disposing of electronic equipment. They help protect the rights and safety of electronics workers around the world, and to achieve own goals for socially responsible and sustainable procurement. They strive to improve worker conditions in ITC hardware supply chains used by public procurers. The University provides regular reports to Electronics Watch with ICT Data to enable them to approach appropriate suppliers and/or brands to request sub tier supply chain disclosure. We also regularly participate in webinars provided by EW on socially responsible public procurement, intended primarily for public sector buyers.

The Procurement Team uses the APUC SUSTAIN tool for regulated procurements (i.e. procurements of£50K and over) when appropriate. SUSTAIN is a web portal, a central hub where sector supplier can complete and store sustainability compliance data. The portal is the core supply chain sustainability tool supporting HE and FE institutions and their suppliers in delivering a transparent, environmentally positive, ethical and socially responsible supply chain. The tool identifies a suppliers' current situation and areas for ongoing development. It provides suppliers and contract managers with a summary of areas for improvement.

The University was awarded Fairtrade status in 2007 by the Fairtrade Foundation, in recognition of our continued promotion of Fairtrade products and principles. The University of Aberdeen is committed to fair trade procurement, awareness, and research. Procurement contributes to an internal Fairtrade & Sustainable Procurement Steering Group with representation from student side, local campaigners, our in-house catering service and the University's sustainability adviser.

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.

The University Procurement Team use the APUC SUSTAIN Tool for regulated procurements when appropriate and is working with APUC through commodity & strategy groups to conside ways of improving the tool and encourage participation by suppliers.

The Procurement Team has been working on an Electronic Invoicing Project with suppliers to reduce the amount of paper invoices coming into the University. Only 3% of invoices were received electronically when the project first started two years ago. That figure has increased considerably this year to 35% (i.e.34,520 manual & 18,576 electronically) and the project is on-going.

When tendering for Audio Visual Framework this year, we asked for energy efficient equipment and additional ways to minimise carbon footprint through technologies. The supplier provided power consumption and carbon footprint data of the equipment and made recommendations where changes could be made to improve consumption.

We continue to use Supported Businesses (i.e. employments programme operated by a supplier, the main aim of which is the social and professional integration of disabled or disadvantaged persons, and where at least 30% of those engaged in the programme are disabled or disadvantaged persons) where appropriate. In particular for the supply of mattresses to our student residencies and for certain furniture requirements.

Over 51% of spend by the University in the last financial year was spent with SMEs who constitute over 65% of the total of active suppliers.

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.

The co-ordination of this submission was undertaken by our Estates & Facilities Directorate.

Data was provided by the functional leads in the relevant areas, notably Energy, Waste, Transport & Procurement.

The information has been reviewed and signed off by the Director of Estates & Facilities and was considered at the University Secretary's Resources Group where it was endorsed for dissemination on behalf of the University Management Group. The full report, carbon management plan progress, and the annual energy report will be considered at UMG in due course.

6(b) Peer validation process

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

As part of a light-touch peer evaluation exercise, this submission has been shared with colleagues at Robert Gordon University and at the James Hutton Institute

As in previous years we (RGU / JHI / UoA) have taken the opportunity to share our respective reports and to provide feedback.

6(c) External validation process

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

Please note that elements of the data being submitted here will also be submitted as part of the 2017/18 Higher Education Statistics Agency (HESA) exercise later in the academic year.

The timing of this return is slightly out of synch with other key exercises e.g. the HESA process (which is the sector's key data submission and validation exercise is due in early 2018) and the University's annual report approval process. That latter process does not approve the University's annual accounts until Court's meeting in December.

As such some of the contextual responses here relate to 2016/17 and not to 2017/18. Updates can be made available early in 2019 if required.

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.

We are committed to the provision of timely and accurate data as part of this exercise. We continue to assess how best to validate future submissions, with a particular focus on how that can be achieved within the restrictions imposed by reporting on the basis of an academic year.

We will continue to review our submission, including those areas where there are gaps or where capacity is limited e.g. adaptation.

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
Angus Donaldson	Director of Estates & Facilities	2018-11-30

RECOMMENDED - WIDER INFLUENCE

~ 4			/		
Q1	Historic	Emissions	(Local A	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
,						1	1						
Table 1b - Full													
Sector	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Units	Comments

Q2a – Tar	gets								
Please de	tail your wider influence targets								
Sector	Description	Type of Target (units)	Baseline value	Start year	Target saving	End	Saving in latest year measured	Year	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.	

n/a - we do not currently have any commitments beyond those articulated in our Carbon Management Plan.

Q3) Policies and Ac Sector	Start year for policy / action imple - mentation	Year that the policy / action will be	Annual CO2 saving once fully imple - mented		Metric / indicators for monitoring progress	policy design	details of this behaviour change	Investment	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

	ip Working, Communication and Capacity Building. your Climate Change Partnership, Communication o	r Capacity Bui	lding Initiatives below.						
Key Action Ty	pe Description		Organisation's project role	Lead Organisation (if not reporting organisation)	Private Partners	Public Partners	3rd Sector Partners	Outputs	Comments
Partnership Working	Get About Partnership	Partnership working of climate change or sustainability	Participant	Nestrans	n/a	Various (e.g. RGU, Aberdeen City Council, Aberdeenshire Council, NHS).	Various (e.g. Energy Savings Trust, Nestrans).	Behaviour change initiatives; collaborative projects.	
Partnership Working	ent/powering-aberdeen	Partnership working of climate change or sustainability	Participant	Aberdeen City Council	Various (e.g. Chamber of Commerce).	Various (e.g. RGU, NHS).	Various (e.g. Energy Savings Trust, Nestrans).	Sustainable Energy Action Plan	
Partnership Working	ent/climate-change/adapting-climate-change	Partnership working of climate change or sustainability	Participant	Aberdeen City Council	Various (e.g. Chamber of Commerce).	Various (e.g. RGU, NHS).	Various (e.g. Energy Savingd Trust, Nestrans).	Multi-sector workshops on adaptation	
Partnership Working	North East Scotland Climate Change Partnership (NESCCP) https://www.aberdeencity.gov.uk/services/environment/climate-change	working of	Participant	Aberdeen City Council	Various (e.g. Chamber of Commerce, Federation of Small Businesses).	Various (e.g. RGU, NHS, Fire & Rscue, Moray Council, Aberdeenshire Council)	Various (e.g. Energy Savings Trust, Nestrans)	Multi-sector declaration on mitigation and adaptation	
Partnership Working	Aberdeen Fairtrade Steering Group http://afairerworld.org.uk/fair-trade/aberdeen-fairtrade-city-steering-group/	Awareness Raising	Participant	Aberdeen City Council	Various (e.g. Northlink Ferries, Co-op).	n/a	Various (e.g. Soroptimists, Aberdeen for a Fairer World).	Aberdeen City's Fairtrade Status	
Partnership Working	Environmental Association for Universities and Colleges [Scotland Branch] http://www.eauc.org.uk/home	Intra organisationa I communicatio ns	Participant	EAUC Scotland	n/a	Further & Higher Ed in Scotland	As necessary e.g. SSN	CPD sessions, workshops, TSNs, and training.	
Partnership Working	Aurora Network (Sustainability) https://aurora-network.global/	Multi organisation Communicati ons	Lead	n/a	n/a	9 universities across Europe.	n/a	Aim is to share best practice on operational sustainability and build research	

synergies.

Key Action Ty	pe Description	Action	Organisation's project role	Lead Organisation (if not reporting organisation)	Private Partners	Public Partners	3rd Sector Partners	Outputs	Comments
Education	Aberdeen Biodiversity Centre https://www.abdn.ac.uk/biodiversity/	Learning/Trai ning	Lead	n/a	n/a	n/a	n/a	Schools outreach and public engagement on biodiversity issues.	
Education	Public Engagement with Research https://www.abdn.ac.uk/engage/	Awareness Raising	Lead	n/a	Various sponsors/	Varies by event.	Varies by event.	Varied programme of research engagement including public lectures and festivals. Frequent sustainability content.	
Education	Cruickshank Botanic Garden https://www.abdn.ac.uk/botanic-garden/	Awareness Raising	Lead	Charitable Trust (administered by UoA).	n/a	n/a	Cruickshank Charitable Trust	Exists to promote an appreciation of plant biodiversity and an understanding of their role in the natural world.	
Education	Universities Scotland Efficiencies Taskforce Sustainability Sub-Committee	Partnership working of climate change or sustainability	Participant	Universities Scotland	n/a	HE institutions	APUC	Reviewing what sustainability means for the Scottish HE sector	
Partnership Working	LHEES - Local Heat & Energy Efficiency Strategy	Partnership working of climate change or sustainability	Participant	Scottish Govt	Various (e.g. all organisations & busineses in a defined area)	Various (e.g. all organisations & busineses in a defined area)	Various (e.g. all organisations & busineses in a defined area)	Heating & energy efficiency strategy for designated areas within Scotland.	

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				
26) Please use the text	t box below to detail further climate chang	ge related activity that is not noted elsewhere within	this reporting template					