

Attachment 2

IARU Global Sustainability Index - Emissions Baseline Data Collection Form

Institution	
Reporting Period	
Person Completing Form	
Address	
E-mail	
Tel	
Fax	

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TABLE 1: INSTITUTIONAL DATA

ESTATE DETAILS ⁽¹⁾	Units	Residential	Non-residential	Total	Comment
Number of Staff ⁽²⁾					
Total number of Staff					
Number of Students ⁽³⁾					
Number of undergraduate students					
Number of graduate students					
Total number of students					
Size of the University Estate					
Gross Internal Floor Area ⁽⁴⁾					
Net Internal Floor Area ⁽⁵⁾					
Other measurement ⁽⁶⁾					

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TABLE 2: EMISSION SOURCES

EMISSION SOURCES (BUILDINGS) ⁽⁷⁾	Units	Residential	Non-residential	Total	Comment
Energy ⁽⁸⁾					
Electricity from National Network ⁽⁹⁾					
Natural Gas					
LPG					
Gas Oil					
Heavy Fuel Oil					
Coal					
Energy from Third Parties ⁽¹⁰⁾					
Renewable Energy generated on site ⁽¹¹⁾					
Other (please specify)					
Total Energy usage ⁽¹²⁾					
Water ⁽¹³⁾					
Metered fresh water					
Other (please specify)					

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EMISSION SOURCES (OTHER)	Units	Residential	Non-residential	Total	Comment
Transport ⁽¹⁴⁾					
Site Vehicles / Pool cars					
Private cars					
Hire cars					
Motorcycles					
Vans / Minibuses					
Local Buses					
Long Distance Coaches					
Air Travel - Short Haul					
Air Travel - Long Haul					
Trains					
Boats					
Delivery vehicles					
Other (please specify)					
Waste ⁽¹⁵⁾					
Waste to landfill					
Waste incinerated					
Waste incinerated with energy recovery					
Waste recycled					
Other (please specify)					
Miscellaneous					
Farm Animals ⁽¹⁶⁾					

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Other (please specify) ⁽¹⁷⁾					
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TABLE 3: CONVERSION FACTORS

CONVERSION FACTORS ⁽¹⁸⁾	Unit	Conversion Factor	Comment
Energy			
Electricity from National Network ⁽¹⁹⁾			
Natural Gas			
LPG			
Gas Oil			
Heavy Fuel Oil			
Coal			
Energy from Third Parties ⁽²⁰⁾			
Renewable Energy generated on site ⁽²¹⁾			
Other (please specify)			
Water ⁽²²⁾			
Metered fresh water			
Other (please specify)			
Transport ⁽²³⁾			
Site Vehicles / Pool cars			
Private cars			
Hire cars			
Motorcycles			
Vans / Minibuses			
Local Buses			

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Long Distance Coaches			
Air Travel - Short Haul			
Air Travel - Long Haul			
Trains			
Boats			
Delivery vehicles			
Other (please specify)			
Waste ⁽²⁴⁾			
Waste to landfill			
Waste incinerated			
Waste incinerated with energy recovery			
Waste recycled			
Other (please specify)			
Miscellaneous			
Farm Animals ⁽²⁵⁾			
Other (please specify) ⁽²⁶⁾			

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TABLE 4: EMISSIONS

CO₂ EMISSIONS	Units	Residential	Non-residential	Total	Comment
Buildings					
CO ₂ emissions from Buildings (Total)					
CO ₂ emissions from Buildings (per m ²)					
CO ₂ emissions from Buildings (per student)					
Other Sources					
CO ₂ emissions from Other Sources (Total)					
CO ₂ emissions from Other Sources (per m ²)					
CO ₂ emissions from Other Sources (per student)					

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TABLE 5: NOTES

1	Where possible, data should be sub-divided to reflect the residential and non-residential estate. The figure for the whole estate should equal the sum for the residential and non-residential parts of the estate. Collegiate Universities may not have access to suitable figures relating to student accommodation in colleges and should include only figures relating to the non-residential estate (i.e. academic & administration).
2	Where possible, please show Full Time Equivalent (FTE) staff. Non-residential staff should include all academic, research, support, administrative and technical staff. Residential staff should include any staff whose primary function is associated with student residences and who are not otherwise included in the figure supplied for the non-residential staff. If an alternative measure to FTE is used please indicate units.
3	Where possible, please show the number of full-time equivalent (FTE) students. The data should be sub-divided to show the number of under-graduate and post graduate. The total should equal the sum of the under-graduate and post graduate students. Include figures for further education students but exclude figures for distance learning and franchise. If an alternative measure to FTE please indicate units.
4	Where possible, floor area should be shown as Gross Internal Floor Area (GIA) converted to square metres (m ²). If an alternative measure to m ² is used please indicate units. GIA includes the total area of buildings owned or occupied or maintained by the institution measured to the internal face of the perimeter walls at each floor level (i.e. the footprint of the building excluding the width of the outside walls). It includes areas occupied by internal areas and partitions. If floor area data is not available to this definition then please provide a figure which matches this as closely as possible and provide an explanation of what has been included in the floor area figure.
5	If GIA figures are not available please indicated Nett Internal Floor Area (NIA) converted to square metres (m ²). If an alternative measure to m ² is used please indicate units. Net Internal Area is the usable area within a building measured to the internal face of the perimeter walls at each floor level. NIA covers all areas which are used for a specific purpose. It does not include those parts of buildings which enable them to function, i.e. 'balance areas.
6	Where neither GIA nor NIA estimates are available please indicate other metric relating to the size of the University Estate, indicating units used.
7	Please indicate any data on CO ₂ emission sources associated with buildings that your institution collects. Please provide accurate data or reliable estimates where accurate data is unavailable. For any emission sources where accurate data or reliable estimates do not exist please indicate N/A (not available).
8	Where possible, energy consumption data (oil, gas, electricity, coal, steam/hot water, etc) should be converted to kilowatt-hours (kWh). If an alternative measure to kWh is used please indicate units.

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9	This is the amount of electricity provided to the University by electricity suppliers. It should exclude <u>any</u> electricity generated on site.
10	This is to account for any energy which is generated locally but not under the direct control of the university and therefore the fuel input has <i>not been accounted for elsewhere in this submission</i> . For example, a university may benefit from energy supplied by a Combined Heat & Power unit which is owned/operated by an independent contractor or shared with a neighbouring organisation, such as a college or a teaching hospital, etc.
11	Please indicate the amount of low carbon energy generated locally from Renewable Energy sources, most likely to include; Wind, Solar PV/Thermal or Biomass, but may include other technologies (please specify):
12	The total energy usage is the sum of all the operational energy associated with buildings. It does not include any assessment of embodied energy associated with construction materials.
13	Metered fresh water consumption data should be converted to cubic metres (m ³). If an alternative measure to m ³ is used please indicate units.
14	Where available, please indicate any accurate data or reliable estimates related to travel and transport at work converted to kilometres. If an alternative measure to kilometres is used please indicate units. For any travel or transport mode for which accurate data or reliable estimates do not exist please indicate N/A (not available). Alternatively, data relating to the amount of fuel used in connection with transport can be accepted.
15	Where available, please indicate any accurate data or reliable estimates related to waste disposal and recycling converted to metric tonnes. If an alternative measure to metric tonnes is used please indicate units. For any waste streams for which accurate data or reliable estimates do not exist please indicate N/A (not available)
16	Please indicate any emission sources from farm animals on University agricultural facilities, for example dairy / beef herds or sheep shown as head. . If an alternative measure to head is used please indicate units.
17	Please indicate any other emission sources not mentioned elsewhere and state measurement units used.
18	Please indicate any nationally or regionally accepted conversion factors to convert emission sources into carbon dioxide (CO ₂). Please specify the source of the conversion factor. Where there is no known appropriate factor please use the conversion factors listed in Annex A.
19	The conversion factor used to estimate CO ₂ emissions associated with electricity supplied from the national network is based on the generating mix relevant to that university/country (i.e. proportion of coal, oil, gas, nuclear, hydro, renewables, etc). The UK value issued by the DEFRA is 0.43 kg/kWh, which is applicable to the UK only. The figure will vary significantly internationally depending on the fuel mix in individual countries. To enable comparison between international universities please indicate the appropriate conversion factor based on your national / regional situation. If there are no national or regional conversion factors, please use the UK factors shown in Annex A

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20	To avoid double counting, the emissions factor for energy from third parties type of energy should only relate to energy used by the university and generated from sources not accounted for elsewhere in this submission.
21	It is recognised that all forms of energy generation have some carbon emissions associated with them over their life cycle, mainly due to their manufacturing process, or fuel transportation in the case of biomass. However, such emissions from renewable energy are considered to be outside the scope of this survey.
22	Please indicate any nationally or regionally accepted conversion factors to convert water treatment and distribution emissions (e.g. pumping, filtration, disinfection) emission sources into carbon dioxide (CO ₂) equivalent. Please specify the source of the conversion factor.
23	Please indicate any nationally or regionally accepted conversion factors to convert travel and transport (e.g. car, train, bus, air travel) emission sources into carbon dioxide (CO ₂) equivalent. Please specify the source of the conversion factor.
24	Please indicate any nationally or regionally accepted conversion factors to convert waste management emissions sources (e.g. methane emissions from landfill) into carbon dioxide (CO ₂) equivalent. Please specify the source of the conversion factor.
25	Please indicate any nationally or regionally accepted conversion factors to convert farm animal emissions sources (e.g. beef / dairy cattle, sheep) into carbon dioxide (CO ₂) equivalent. Please specify the source of the conversion factor.
26	Please indicate any nationally or regionally accepted conversion factors to convert any other identified emission sources not mentioned earlier into carbon dioxide (CO ₂) equivalent. Please specify the source of the conversion factor.