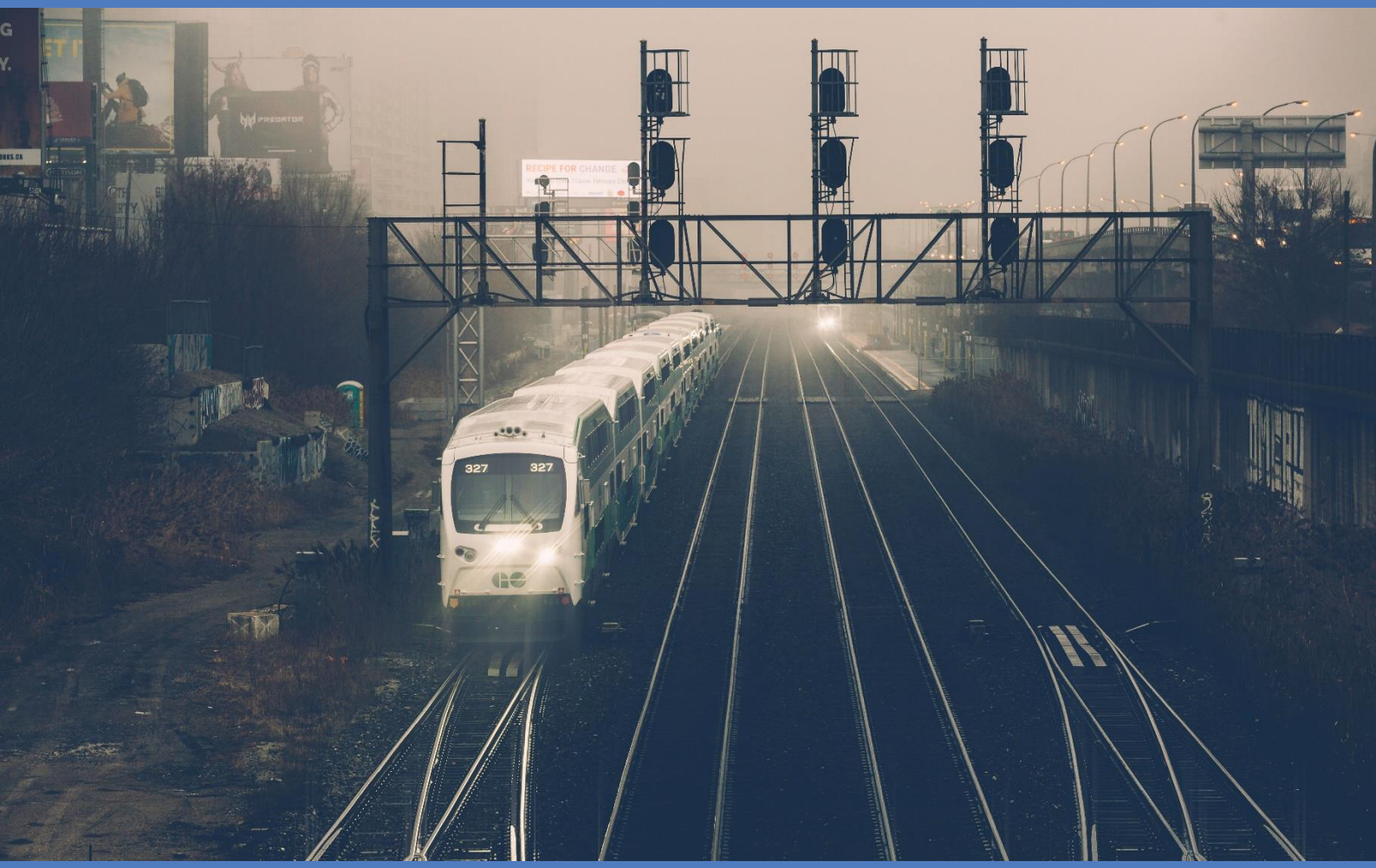
Wellcome Trust Carbon Offsetting Guidance Notes

V2.0 – June 2020



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Contents

Overview

The following document provides guidance on completing the Welcome Trust Application form section titles "*Carbon Offsetting for Travel*". Advice is provided by the Wellcome Trust as to what steps the researcher should take to minimise their carbon emissions. Full details of the Wellcome Trust Carbon Offset Policy can be found at: https://wellcome.ac.uk/funding/carbon-offset-policy-travel . This policy notes:

> If the host organisation has a carbon offset policy, researchers must follow this.
>
> If the host organisation does not have a policy, researchers should:
>
> - calculate the carbon footprint of their travel using a recognised standard (for example, the International Civil Aviation Organization for international flights and the UK government conversion factors for greenhouse gas 2019 for UK train journeys)
> - choose their own carbon offset provider(s) – we recommend that they choose providers that:
> - spend nearly all or 100% of the cost on offsetting activities
> - support activities that remove carbon emissions from the atmosphere, not just reduce them
> - support activities that fit with the values of their host organisation and Wellcome.
>
> New grant applicants should include the carbon offset costs in their grant application.
>
> Extract from the Wellcome Trust Carbon Offset Policy, February 2020.

As of May 2020, the University of Edinburgh does not have a Carbon Offset policy in place in regards to travel. Our long term plan is to initiate our own carbon sequestration project. You can read our position and reasoning here.

Once this project is live, it will be possible for individual travellers to sequester carbon emissions through this system. We estimate that this project will not be live until at least 2023 and as such the cost of carbon has not been confirmed. However, it is reported that the cost of carbon will be between £30 and £60 per tonne CO_2e by 2030[1]. Because of this, we recommend that an initial figure of £30 per Tonne CO_2e is used to calculate the cost of carbon.

The following guidance will assist in calculating the carbon emissions associated with your travel, in accordance with the Wellcome Trust guidance.

[1] Cost of carbon in 2030 estimated at $40–$80 according to a report by the Carbon Pricing Leadership Coalition (2017): https://www.carbonpricingleadership.org/report-of-the-highlevel-commission-on-carbon-prices/

Wellcome Trust Application Form: Carbon Offsetting

This section provides guidance for each question within the Carbon Offsetting section of the Wellcome Trust Application form (as of February 2020). **Note these questions are not provided in the order of the application form as the calculations of cost require a carbon emission figure to calculate.**

Are you requesting costs to offset the carbon emissions involved in your travel? (Wellcome Trust Carbon Offset Policy Q1)

In line with the Wellcome Trust Carbon Offset Policy, offsetting is required for all travel paid for by the Wellcome Trust. If you would like to include the cost of carbon offsetting within your application, please input "**Yes**" to this question.

How much carbon will this offset (in tonnes)? (Wellcome Trust Carbon Offset Policy Q3)

The following steps should allow you to calculate your carbon emissions from travel. A table to assist in calculating carbon emissions from flights is provided in Appendix A.

Step 1. Estimate your travel
Use the table in appendix 1 to collate a list of probable locations expected to visit as part of this grant application and note down how frequently you are likely to travel to these locations.

Step 2. Calculate the corresponding carbon emissions
Once an estimated number of journeys has been established, for each journey, calculate the corresponding carbon emissions using the following online tool:

https://flightemissionmap.org/

Important note: Ensure the carbon emissions calculated account for return flights.

Should calculating the exact travel journeys not be possible, the following carbon emissions provide estimates for select regions. These figures are calculated based on the average carbon emissions for University journeys from 2018-19, and can be used to provide a reasonable estimate of carbon emissions.

Region	Carbon Emissions (per direct return flight, travelling in economy class) (Tonnes CO2e)
United Kingdom e.g. Belfast, London, Exeter	0.5
Europe e.g. France, Turkey, Iceland	0.6
North Africa e.g. Egypt, Ivory Coast, Chad	0.8
USA – East Coast e.g. New York, Washington DC, Detroit	1.7
India and Central Asia e.g. India, Pakistan	1.7
Middle East e.g. Saudi Arabia, Qatar	2.1

Central America e.g. Costa Rica, Panama, Belize	2.6
East Asia e.g. China, Japan, South Korea	3.1
USA - West Coast e.g. California, Nevada	3.2
South East Asia e.g. Indonesia, Philippines, Cambodia	3.8
Sub-Saharan Africa e.g. Kenya, South Africa, Zambia	3.9
South America e.g. Columbia, Venezuela, Brazil	4.1
Australasia e.g. Australia, New Zealand	6.9

Step 3. Accounting for different flight classes.

The University Expenses Policy (V1.0) notes a limited number of exceptions where classes above economy can be used. Figures provided for journeys on the above tools are provided for economy class travel. Carbon emissions for other classes of travel are significantly higher due to the increased space associated with these classes. Please multiply the above carbon emission figure with the following values:

- Premium Economy Class: x1.6
- Business Class: x2.9
- First Class: x4.0

Please Note: The Wellcome Trust policy suggest the International Civil Aviation Organization (ICAO) tool for calculating emissions. This calculator does not take into account the impact of Radiative Forcing (the additional warming effect of releasing particles high in the atmosphere), therefore does not provide a full reflection of global warming potential and impact on the climate. As such, **we do not recommend this tool for calculating carbon emissions**. Should you decide to use the ICAO tool, we recommend that each calculation should be multiplied by a further 1.9x in order to take into account the effects of Radiative Forcing.

How much are you requesting for carbon offset costs?
(Wellcome Trust Carbon Offset Policy Q2)

Step 1. Establish the carbon emissions associated to your travel.
Use the total carbon emissions figure from travel calculated above

Step 2. Multiply your carbon emissions (in tonnes) by the University's interim carbon cost:

Interim University carbon cost: £30 per tonne CO_2e (the lower estimated cost of carbon in 2030 according to the Carbon Pricing Leadership Coalition).

Carbon offset costs = Tonnes CO_2e emitted x Cost per Tonne CO_2e being offset

Q4: Are you requesting costs for alternatives to travel, so you can travel less?
(Wellcome Trust Carbon Offset Policy Q4)

The Wellcome Trust are open to funding alternatives to travel, or to travel using less carbon intensive options, such as rail.

They allow for application to include costs associated with reducing carbon emissions from travel. From their guidance, shown above, this is split into two options: essential travel costs; and project related resources. If you are requesting funding to cover either of these costs, input "**yes**" into this section, and proceed to Q5.

Q5: How much are you requesting for these alternatives?

(Wellcome Trust Carbon Offset Policy Q5)

This question looks to calculate the cost of both *additional travel costs* and *project related resources*. These are explained below. A table to assist in calculating the cost of alternatives is provided in Appendix B.

Essential travel costs

If low-carbon alternatives are more expensive (e.g. a train journey compared to a flight), please follow the steps below.

Step 1. Estimate your travel

Create a table of probable locations expected to visit as part of this grant application, and note down how frequently you are likely to travel to these locations.

Step 2. Calculate the cost of a low-carbon journey

Visit: https://raileurope.co.uk/en to find out costs of travelling by train within Europe. If you are unsure of what journeys are possible, "The man in seat 61" is a useful resource for researching train journeys to the continent from the UK - https://www.seat61.com/

Step 3. Calculate any additional costs incurred due to the low-carbon travel.

This could include an additional night accommodation, or additional sustenance required due to a journey taking longer. Different Schools have different acceptable costs for hotels. Should your School not provide such a figure, the table below provides an example of accepted hotel costs by the School of Geosciences. Please note, the Wellcome Trust may have different limits (we were unable to verify this at time of writing).

Location	Cost of hotel (per night)
UK (not London)	£60
London	£100
Rest of the world	£100

Project related resources

There are a number of online tools which could be used instead of travel. The University supports a number of video collaboration tools (including: Zoom, Microsoft Teams, Blackboard Collaborate Ultra, and VScene). However, should these systems not be suitable for your needs, then searching around for a suitable tool should bring up a number of alternative video collaboration tools. Some of these tools are noted below.

Please note: the University does not support any of these additional software centrally, although some local areas do support additional tools. We recommend that you contact your local information services team to ensure the tools are suitable and secure.

Some questions to consider when selecting a video collaboration tool:

- How easy is the system to use for all attendees
- How "data hungry" are the systems? Consider that some partnerships may have limited bandwidth. For example, high definition video will require higher bandwidth to run smoothly than an audio-only call.
- Will the tools be accessible to project partners? Access to technology varies across the world, and so some new software may not be compatible
- What support would you require to set up and maintain these tools at a local level? Will training be required, what happens if the system stops working whilst in use?
- Will you will need a licence for a single tool, or multiple tools (e.g. video conferencing but also the ability for attendees to ask questions through a platform such as Sli.do).
- Will you require any additional infrastructure for this project? If so, please note that the Wellcome trust carbon offset policy states that these will not be covered under this policy. It may be possible to apply under the Wellcome Trust overhead policy. Please see the appropriate documentation for this.

How much carbon will you save by using alternatives to travel (in tonnes)? (Wellcome Trust Carbon Offset Policy Q6)

Using the same figures from Q5 above, if you are replacing a journey project-related resources with Video Conferencing it is acceptable to assume that the full travel emissions will be saved. It is noted that video conferencing is not completely carbon free. For example, there will be some emissions from running servers, especially when considering the high bandwidth required for video conferencing. We are unaware of any agreed standard figures for the emissions released from video conferencing. However, these are negligible compared to the emissions released from flights.

Finding out more

These guidelines have been developed by the Department of Social Responsibility and Sustainability. We use data provided by the University to establish carbon emissions for each journey taken on behalf of the University.

Contact Us

If you have further queries regarding completing applications relevant to the Wellcome Trust Carbon Offset Policy, please contact:

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Appendix A: Example Table for Calculating Carbon Emissions by plane

	Q3 - Step 1		Q3 - Step 2		Q3 - Step 3		Q2
	Destination Location	Number of return visits from Edinburgh	Carbon emissions associated with one return journey (Tonnes CO_2e)	Multiplication for Number of visits (if required)	Multiplication for Flight Class (if required)	Total journey carbon emissions (Tonnes CO_2e)	Cost to carbon offset (£)
Example	New York	3	1.7 Tonnes CO_2e	=1.7 x 3 = 5.1	X1 (travelling in economy class)	5.1 Tonnes CO_2e	= 5.1 x £30 = £153
					Total	Tonnes CO_2e	£

Appendix B: Example table for calculating cost of essential travel costs by low-carbon modes of transport, or additional project related resources.

	Q5 - Step 1		Q5 - Step 2	Q5 - Step 3	
	Destination Location	No. of return visits from Edinburgh	Cost of alternative travel or alternative digital tools	Additional costs from travel (e.g. sustenance, additional nights accommodation)	Total cost requested for alternative travel
Example	Zurich	2	Return train journey £236	Additional hotel nights in Zurich before meeting £100 x 1 = £100	= (£236 + £100) x 2 = £652

	Additional project related resources - Description	Unit Cost (£)
Example	1 year sli.do licence	£500

Q5 Total Cost (essential travel costs and additional project related resources)	£