Dear Chair,

Re: Net Zero Government inquiry

I would like to thank you for giving the Office of Government Property (OGP) the opportunity to contribute to the Net Zero Government inquiry.

During the session I said I would provide the committee with an example of a government property project that took into account the whole property life cycle.

I would like to bring to the committee’s attention a design guide produced by the Government Property Agency, entitled ‘Government Workspace Design Guide’. This guide addresses key elements of whole life cycle assessment and, while currently in (final) draft form, was used both in the construction of the Birmingham hub (referred to by the Minister in the session), and the DfE’s Sanctuary Building refurbishment project.

Within the design guide section ‘Sustainable and Healthy Buildings’ guidance is provided around whole life assessment in planning and design of a building, including:-

- Consideration of the re-use of existing built assets such as existing structural frames, substructure, foundations or façade to minimise the demolition and impact of new development
- Re-use of furniture
- Reducing embodied energy through:-
  - Efficient design and criteria to minimise the use of new material and wastage.
  - Consideration of off-site prefabrication to minimise on-site construction activity, reduce wastage and optimise safety.
  - Use of recycled aggregates for non-structural concrete frame elements, sub-bases for temporary hard standing, piling mats or general fill to reduce the impact on new resources.
  - Use of cement replacement products such as GGBS or PFA to reduce the carbon impact of concrete production.
  - Use of recycled steel in reinforcement.
- Reduced operational energy considerations through integrated structural and services systems which will improve performance of the building, such as the use of thermal mass from concrete structures to reduce operational energy.
• Design for flexibility ensuring that the development is able to respond to users’ current and future needs to maximise the life of the building. If future changes to the building are envisaged then early consideration of these in the design process will influence the preferred form, layout and choice of structure – such as steel frame in-situ or post-tensioned concrete.

Additionally the design guide promotes the development of a ‘Low Carbon Design Hierarchy Strategy’. A passive design strategy is the first approach, whereby the carbon reduction methods will be achieved through fabric and form optimisation, maximising natural daylight and natural ventilation when required and minimising the need for mechanical systems. Passive techniques are also adopted in the forms of ensuring the buildings retain their heat via high quality insulation. This first phase of design allows for the greatest environmental benefit compared to the cost required. Middle ground elements to be incorporated in the design will include items such as energy efficient LED lighting with daylight dimming, high efficiency ventilation and heating equipment, heat recovery element and power correction facilities; all of which is required to minimise the energy used to power the services.

I understand there was also a question in the second session, in relation to the way MOD carbon emissions are calculated and, specifically, whether or not carbon absorbing land (carbon sink) is taken into account.

Having conferred with MOD colleagues, I can confirm that MOD carbon emissions are calculated by converting energy consumption (kWh/year) to carbon using factors set annually by BEIS and no account is taken of the defence estate as a carbon sink.

Yours sincerely
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Enc. Government Workspace Design Guide - final draft