



School Design Group report for AGM 29 April 2021 Ann Bodkin – CIBSE SDG

Welcome and thanks.

Special thanks to Jeremy Climas, who has stepped back from the role as chair having moved on from the world of consulting (Max Fordham) to the world of doing. Ann Bodkin, (Department for Education) is also stepping down from the vice-chair role after five years and looks forward to supporting the next generation of client-side, as a key continuation of the success of this group. Joe Jack Williams (Feilden Clegg Bradley Studios) will also be stepping down as secretary.

And thanks to CIBSE for their continued attention to the culture of collaboration as the core to problem-solving. Thanks all who contribute to the design, construction and operation of our school buildings and grounds.

Over the past year or two, we have made significant contributions to the industry, particularly around the climate adaptation and overheating study. A snapshot is below, and as part of shaping the discussion we've set out suggested key themes for the upcoming years, to aid discussion, which align with CIBSE research priorities.

a. **Classroom overheating adaptation study**

Vital piece of collaborative work, which demonstrates how the industry can work together to achieve clear focus. Workshops facilitated via CIBSE School Design Group, project work led by Tim Taylor (Faithful + Gould) presented at Build to Perform conference and CIBSE Journal Education Special 2020.

b. **Resilient School Building project**

As a development of the **Overheating adaptation study** a deep-dive project **Resilient School Building project**. Lead by Rock Townsend and Arup, using Stopsley School, Hertfordshire as a baseline to explore measures to address resilience to the two priority impacts of climate change i.e., flooding and overheating.

c. **Communications**

- **Adaptation strategies for schools**, reported in CIBSE Journal, reporting through CIBSE School Design Group
<https://www.cibsejournal.com/general/building-resilience-into-net-zero-schools/>

- **Thermal Comfort in a warming climate**
CIBSE Health and wellbeing working group industry roundtable
Ann Bodkin (DfE) Joe Jack Williams (FCBStudios)
https://www.cibsejournal.com/technical/ensuring-thermal-comfort-in-a-warming-climate/?utm_content=buffer5e8c9&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer
- Curated conversation on '**Wellbeing in a Changing Climate**' as part of Festival of Learning SPACES: Joe Jack Williams (FCBStudios) Anastasia Mylona (CIBSE Head of Research) and Sarah Williams (DfE) - Wellbeing in Schools [Well-being in a changing climate - Crowdcast](#)
- **Adaptation - Response to Committee for Climate Change**
Helped to give focus to DfE's response as part of Government's response to the CCC's 2020 Annual Progress Report to Parliament.
<https://www.gov.uk/government/publications/committee-on-climate-changes-2020-progress-report-government-response>

Monitor and measure improvements in reducing emissions in schools and public buildings (and associated travel), aiming for zero-carbon buildings wherever possible, and ensure they are resilient to the future impacts of climate change.

The sector is working to deliver low carbon and resilient school and college buildings and sites.

DfE is working closely with OGDs, including MHCLG on the Building Regulation updates, BEIS Public Sector Decarbonisation Team and BEIS Schools Non-Domestic Smart Energy Management Innovation Competition Team to roll out smart metering in to schools and identify ways in which data can be used by school to optimise energy consumption.

DfE's Capital Team is collaborating with industry and academia on £4.5 million of research, including Advancing School Performance: Indoor environmental quality, Resilience and Educational outcomes (ASPIRE)³⁰⁶ and School Buildings: Adaptation, Resilience and Impacts on Decarbonisation in a changing climate (ARID)³⁰⁷ with embedded academic researchers working with the Department³⁰⁸. Metered schools energy data, accessed from BEIS, will be used in UCL's school stock model. £2.4 million of funding has been secured in collaboration with the Construction Innovation Hub (CIH) to develop the next generation of secondary schools. This is a zero carbon whole-life approach using Modern Methods of Construction.

DfE has undertaken a Climate Change Adaptation study to assess the opportunities and associated risks of a 2°C and 4°C climate change scenario. Outputs from this will be presented to Defra as part of a commitment under the National Adaptation Programme. Findings from this will be used to inform the risks and required schools standards for adaptation.

A four-year strategy for Schools Flood Resilience is being developed to fund awareness, resilience and resistance work at schools. As part of this we have established a partnership with the Environment Agency and are establishing partnerships with the nine English water companies.

New build schools will have a primary focus on heat decarbonisation through a fabric first approach, while maintaining high quality indoor environmental performance, followed by,

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[Government Response to the Committee on Climate Change's 2020 Progress Report to Parliament](#)

where possible, clean supply of fuel or as a minimum sufficient flexibility the in the system to switch to a low carbon heat source in the future.

Heat decarbonisation of the estate is challenging in the existing estate, and we are working across government to understand 1) the use of heat pumps in schools and 2) the opportunities around centralised energy centres on school sites.

School Design Group - 2021 forward look

Following discussion with Anastasia Mylona (CIBSE Head of Research)

CIBSE key knowledge themes 2020 and beyond

[CIBSE - Building Services Knowledge](#)

- **Climate adaptation strategies**
Enabling buildings to be resilient against the impacts of climate change. Providing design and weather data based on the latest climate science and considering appropriate design life.

Needs to be with the engineers – hugely respect that position, needed to resolve today's current preoccupations – do not forget to bring the clients and architects along with you.
- **Air Quality in schools**
- **Occupant wellbeing** – Childhood Development needs
- **Guidance:** What interest and role can CIBSE SDG play?
 - i) **TM65 – Embodied Carbon in Building Services** [TM65](#)
 - ii) **TM57 - [Integrated School Design](#)**
- **What else?**

AGM

- **Nominations for Officers – Chair, vice chair and secretary**
- **Committee members and nominations for additional members**
- **Future key themes discussion**