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Response

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Response to discussion: A framework for decarbonisation for bridge owners, engineers and designers

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This is a response to Perry P (2025) Discussion: A framework for decarbonisation for bridge owners, engineers and designers. *Proceedings of the Institution of Civil Engineers – Bridge Engineering*, <https://doi.org/10.1680/jbren.24.00999>.

The authors are grateful for the feedback on the paper and support the contributor's view that there is considerable opportunity to improve our understanding of existing bridge assets and increase our collective ability to reuse, repurpose and extend the life of these structures. This issue is highlighted in Section 4.2 of the paper, where reference is made to structural health monitoring, data collection and analytics. The authors support the view that greater use of data from archive searches, instrumentation and monitoring, and structural investigations can provide the evidence base to support better decision making. The Net Zero Bridges Group (NZBG) is working on further guidance, which will be shared on the NZBG website, and we encourage others to share their ideas and activity in this area. We welcome any case studies where investment in obtaining better asset data has been shown to lead directly to lower-emission outcomes.

The authors note the contributor's reference to the Net Zero Tunnelling Group. Members of the NZBG have collaborated with

colleagues involved in this tunnelling initiative. Further initiatives are underway, including an emerging range of international groups. A briefing paper called 'The Net Zero Bridges Group: How can bridge specialists address net zero together?' explains in more detail how the NZBG operates as a voluntary, independent organisation. It highlights the possibility that other sub-sectors might benefit from similar special-interest communities. We highlight the need for co-operation and engagement, so that specialist initiatives avoid duplication of effort. It is important that such activities are coherent and compatible with the work of groups active in this area at a higher level.

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