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Embodied Carbon Footprint of Existing Malaysian Green Homes

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Abstract : Part and parcel of building green homes (GHs) with favorable thermal comfort (TC) is to design and build with reduced carbon footprint (CF) from embodied energy in the building envelope and reduced operational CF overall. Together, the environmental impact of GHs can be reduced significantly. Nevertheless, there is still a need to identify the base CF value for Malaysian GHs and this can be done by assessing existing ones which can then be compared to conventional and vernacular houses which are built differently with different building materials. This paper underlines the research design and introduces the case studies. For now, the operational CF of the case studies is beyond the scope of this study. Findings from this research could identify the best building material and construction technique combination to build GHs depending on the available skills, financial constraints and the condition of the immediate environment.

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