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Title: Assessing building energy needs and solar thermal integration through experimental testing and model-based approach : A Testing Lab case study

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Joshua Piñas holds a PhD in Engineering Science. Since 2021, his research has focused on building thermal dynamics and energy performance, with an emphasis on numerical modeling based on the model method, simulation, and instrumentation. His recent publications explore (1) building thermal inertia, specifically the determination of main thermal time constants, (2) a novel methodology for identifying indoor thermal discomfort and heatwave risks, and (3) review of bioclimatic techniques. His earlier work spans materials science, renewable energy, and metrology applied to the building sector, which includes co-authoring a patent for a portable thermal conductivity measurement device.