ARCHITECTURE DESIGN

Sustainability Summit

The below answer sheet is for your own self-assessment. Please keep your completed questionnaires and answers on file for your record. Sustainability Summit will send you a CPD certificate once your questionnaire has been submitted.

1 FORMAL CPD POINT

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The Expansion of Data Centres: Implications for Suburbs and Sustainability

1. What is driving the rapid expansion of data centres in Australia?

Data centre growth is being driven by demand for cloud computing, streaming, online services, artificial intelligence and other data-intensive technologies, with AI in particular increasing demand for high-performance, energy-intensive computing infrastructure.

2. Why do data centres have significant energy and water requirements?

Data centres consume significant electricity to operate servers and cooling systems, while water use can also be substantial where water-based cooling is employed, with consumption varying according to facility size, climate, technology and efficiency.

3. What are the key environmental and urban impacts associated with data centres?

Beyond energy and water use, data centres can affect embodied carbon, land use, heat generation, backup power, waste and local infrastructure, while their location and design can influence surrounding suburbs and urban amenity.

Competency Codes: PC 10, PC 31