

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 Refuel certificate once your questionnaire has been submitted.



Scan to claim your CPD Certificate

Electrifying everything under the Sun

1. Outline the main sources of electricity generation in Australia today and explain two key barriers that are slowing the integration of renewable energy into the national energy grid.

Australia's main electricity sources are coal, natural gas, and increasing contributions from solar and wind. Two key barriers to renewable integration are grid infrastructure limitations, which make it difficult to transmit variable renewable energy efficiently, and energy storage constraints, which hinder the ability to balance supply and demand during periods of low renewable generation.

2. Australia has the highest per-capita solar PV installations in the world and abundant land for renewable energy infrastructure.

Discuss how these factors give Australia an advantage in electrifying its energy sector.

Then, propose one strategic pathway the country could pursue to become a global renewable energy leader, and how architects and the construction industry could contribute to this transition.

Australia's high per-capita solar PV installations and abundant land provide a significant advantage for rapidly expanding renewable energy capacity, enabling large-scale solar and wind farms to generate reliable, low-cost electricity while reducing reliance on fossil fuels. A strategic pathway to becoming a global renewable energy leader is developing integrated renewable energy hubs, combining utility-scale generation with local storage, smart grids, and export-ready hydrogen or battery systems; architects and the construction industry can support this transition by designing energy-efficient buildings, integrating on-site renewables, and adopting sustainable construction practices that complement grid decarbonisation and maximise the impact of renewable infrastructure.

3. What is one of the primary conditions that must be met for "electrifying everything" to be a sustainable strategy?

- A. Continued reliance on coal as a backup energy source
- B. Widespread adoption of diesel generators for remote power
- C. Ensuring the electricity is generated from clean, renewable sources
- D. Installing solar panels only on government buildings

Correct Answer: C