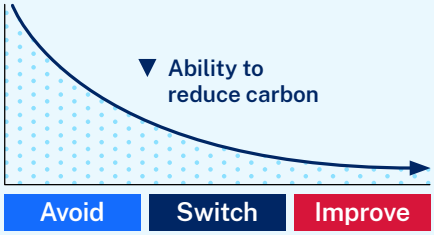
Decarbonising Infrastructure Delivery Policy
How to reduce carbon on your project?

The *NSW Decarbonising Infrastructure Delivery Policy* sets mandatory requirements for agencies to apply the Carbon Reduction Hierarchy when identifying potential opportunities to reduce carbon. The Carbon Reduction Hierarchy has been adopted from *PAS 2080: 2023 – Carbon Management in infrastructure.*



1 | Avoid

Avoid the need for infrastructure

- **No and low build options** – challenge the need for new infrastructure and consider alternative solutions to meet service needs.
- **Nature-based solutions** – consider as an alternative to 'grey' infrastructure.
- **Maximise the use of existing infrastructure** – reuse, repurpose, refurbish, considering the remaining design life of asset components.
- **Adaptive reuse** – consider alternative uses for existing infrastructure e.g. heritage items.
- **Site selection** – avoid sites that require complex foundations or structural design.
- **Value engineering** – optimise scale of elements to meet performance needs and challenge specifications e.g. structures and foundations.

2 | Switch

Switch to low carbon options, materials, and technologies

- **Design optioneering** – test and compare different structural form and material options by application.
- **Low carbon materials** – consider alternative materials e.g. timber, low carbon concretes.
- **Reuse and recycled content** – maximise onsite reuse of reusable materials and recycled materials e.g. recycled aggregates.
- **Low carbon fuels and energy** – electrification of sites and use of renewable fuels, e.g. battery electric equipment, renewable biodiesel, synthetic e-fuels.
- **Local sourcing** – consider impacts from transport to site and local materials available.

3 | Improve

Adopt solutions that improve resource efficiency and circular economy outcomes

- **Prefabrication and modular construction** – reducing construction activities and wastage.
- **Design for durability and adaptability** – consider practical design life through how elements can be adapted / augmented in future.
- **Design for disassembly and deconstruction** – consider how infrastructure can be better reused or recycled in decommissioning.
- **Low carbon construction methods** – consider construction phasing and programming to eliminate the need for temporary elements / materials.

For further information and additional resources, please refer to the Decarbonising Infrastructure webpage.