

GIPPSLAND FORESTRY HUB: STEPS TOWARDS A GREENER FUTURE SUMMARY



Purpose and Context

Australia faces two intersecting national priorities: achieving net-zero greenhouse gas emissions by 2050 and delivering 1.2 million new homes over five years under the National Housing Accord. Without intervention, increased construction will significantly increase emissions, particularly embodied carbon—the emissions associated with materials and construction before buildings are occupied. The report argues that reducing embodied carbon in the built environment is essential for meeting climate targets while delivering much-needed housing.

Key Findings

1	Embodied carbon is the critical challenge As buildings become more energy-efficient and electricity grids decarbonise, embodied emissions are projected to rise from 16% to up to 85% of the built environment’s total carbon footprint by 2050. Upfront emissions (materials, transport, and construction) are “locked in” before occupation, making early design and material choices decisive.
2	Timber and bio-based materials offer immediate, scalable benefits Wood products are low-emission materials that store biogenic carbon for the life of the building, effectively acting as a natural form of carbon capture, use and storage. Compared with steel and concrete, timber products have substantially lower fossil- fuel emissions and can deliver additional benefits through lightweight construction and offsite prefabrication. Sustainably managed forests create a virtuous cycle of carbon sequestration, harvesting, replanting, and long-term carbon storage in buildings.

Key Findings

3	Policy gaps are slowing progress Australia currently lacks a nationally consistent framework and public database for measuring and comparing embodied carbon in building materials. While NSW is leading development through NABERS, broader national and state alignment is urgently required. Without mandatory measurement, reporting, and targets, embodied carbon reductions will remain fragmented and voluntary.
4	Government leadership is essential Public procurement is identified as a powerful lever for change. By embedding embodied-carbon targets, reporting requirements, and low-carbon material criteria into government buildings and infrastructure projects, governments can drive market transformation, improve data availability, and lower costs through scale.
5	Voluntary initiatives accelerate best practice Tools such as NABERS Embodied Carbon and Green Star are already enabling industry leaders to measure and reduce emissions. Wider adoption—supported by incentives, planning policies, and recognition of stored biogenic carbon—can rapidly lift performance beyond business-as-usual.
6	Industry action and supply growth are required The wood products industry must continue decarbonising its own operations, expand Environmental Product Declarations (EPDs), increase prefabrication capacity, and ensure certification of all plantations and production forests. Australia also needs increased investment in new plantations to meet future demand and maximise climate benefits.

Conclusion

The report concludes that embodied carbon reduction is one of the fastest and most cost-effective climate actions available in the built environment today. Using low-carbon, bio-based materials—particularly sustainably sourced timber—combined with strong government policy, procurement leadership, and industry innovation, can enable Australia to meet housing needs while delivering substantial and immediate emissions reductions.