



GEELONG SUSTAINABILITY

Submission to: Inquiry Into Artificial Intelligence and Data Centres
The Senate Environment and Communications
References Committee
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Submission date: 28 August 2026

About Geelong Sustainability

Geelong Sustainability is a for-purpose community organisation and registered charity that exists to build a powerful community movement for a just transition to a net zero future. Since our establishment in 2007, Geelong Sustainability has become the region's leading sustainability group with extensive networks in community, government and business throughout Geelong and the broader Barwon region.

Our vision is a thriving and resilient community taking urgent action on climate change together. We are recognised for our evidence-based innovative projects, which support our community's transition to a net zero future.

We have 120 financial members, over 50 active volunteers, and an active network of 20,000+ supporters across the region. Throughout our 18+ years of operation we have delivered a diverse range of projects, initiatives and events, facilitating \$9.3m of renewable energy investment in the community and helping mitigate over 120,000 tonnes of cumulative CO2 emissions.



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Inquiry into Artificial Intelligence and Data Centres

Introduction

Geelong Sustainability welcomes the opportunity to contribute to the Senate inquiry into Artificial Intelligence (AI) and data centres.

As Australia transitions towards a low-carbon economy, digital infrastructure will play a role in supporting essential services, research, healthcare, communications and emerging technologies.

However, these benefits cannot be considered in isolation from the significant environmental, social and economic costs associated with rapidly expanding data centre infrastructure. Australia is experiencing unprecedented growth in proposed and approved data centres, driven largely by increasing AI demand. This expansion is occurring without a comprehensive national framework that adequately considers cumulative impacts on energy systems, water resources, communities or Australia's climate commitments.

Geelong Sustainability does not oppose technological innovation or the responsible development of AI. Rather, we believe Australia requires a stronger, nationally consistent, **mandatory and enforced** regulatory framework that ensures AI and data centres operate within environmental limits, contribute positively to Australia's clean energy transition, and deliver genuine public benefit.

Existing Regulatory Frameworks

Australia's current planning, environmental and energy regulatory frameworks were not designed to accommodate the rapid expansion of AI infrastructure now underway. Most data centre developments are assessed through existing state planning systems, which typically consider projects individually rather than examining cumulative impacts across regions or nationally. There is currently no comprehensive national strategy governing where data centres should be located, how their energy and water demands should be managed, or how they should contribute to Australia's emissions reduction commitments.

Similarly, there is limited transparency around the environmental performance of individual facilities. Public reporting on electricity consumption, water use, greenhouse gas emissions and resource efficiency remains inconsistent and, in many cases, voluntary.

Given the strategic importance of AI infrastructure, Australia should move beyond fragmented planning approaches and establish nationally consistent standards that provide certainty for industry while protecting communities and the environment.

The Committee should also consider whether agreements between governments and global AI companies appropriately balance economic development with Australia's environmental obligations and community expectations. Decisions regarding nationally significant digital infrastructure should be subject to transparent assessment processes and clear public interest tests.

Climate, Energy and Emissions

Data centres are among the fastest-growing sources of electricity demand globally. AI workloads are substantially more energy intensive than traditional computing and are expected to continue increasing electricity requirements over coming decades.

Australia's electricity system is already undergoing a significant transformation as coal-fired generation retires and renewable energy expands. Large new electricity loads should not place additional pressure on this transition. Instead, data centres should be required to demonstrate that they contribute to the clean energy transition through enforceable obligations rather than voluntary commitments.

This includes:

- procuring additional renewable energy generation rather than competing for existing supply
- investing in energy storage and firming technologies
- incorporating world-leading energy efficiency standards
- participating in flexible demand management to support grid stability and
- minimising lifecycle greenhouse gas emissions rather than relying heavily on carbon offsets.

Renewable energy procurement alone should not be considered sufficient. Australia's climate goals require absolute emissions reductions across all sectors, not simply the redistribution of renewable electricity.

The Committee should also consider the embodied emissions associated with constructing data centres, including concrete, steel, electrical equipment and ongoing hardware replacement. These lifecycle impacts are often overlooked despite representing a significant proportion of overall emissions.

Geelong Sustainability strongly warns about the increase of data centres without strong renewable energy developments which may result in Australia failing to reach our emissions reduction targets - something we cannot afford. We cannot have data centres further lock us into climate disaster.

Water Security and Natural Resources

Water consumption is becoming an increasingly important consideration as climate change intensifies drought, heatwaves and water scarcity across many parts of Australia. Many data centres require substantial quantities of water for cooling, creating potential conflicts with community needs, agriculture and environmental water requirements.

Future data centre proposals must be required to demonstrate that:

- potable drinking water is avoided;
- low-water or alternative cooling technologies have been prioritised;
- water demand is appropriate for local climatic conditions; and
- cumulative impacts on regional water resources have been fully assessed.

Water reporting should also become mandatory and publicly available to ensure transparency and accountability.

Beyond water, data centres require significant land, construction materials, critical minerals and electronic equipment. The environmental impacts associated with resource extraction, manufacturing and electronic waste should form part of future regulatory assessments.

Community Impacts and Climate Justice

The rapid expansion of digital infrastructure also raises important questions of equity. Large infrastructure developments are frequently proposed in regional areas or communities where land is less expensive and planning constraints may be lower. While these communities often experience the environmental impacts of development, including increased energy demand, industrialisation, infrastructure expansion and resource consumption, the primary economic benefits may accrue elsewhere.

Australia's digital future should not replicate historical patterns where communities already experiencing disadvantage disproportionately carry environmental burdens.

National planning should therefore incorporate a climate justice lens that considers:

- social equity,
- cumulative industrial impacts,
- access to local employment and economic opportunities,
- distribution of environmental costs and benefits,
- long-term community wellbeing.

Meaningful community consultation must occur early in project development and continue throughout the life of a project. Consultation should not simply inform communities about

predetermined decisions but provide genuine opportunities to influence outcomes. Traditional Owners must also be recognised as key decision-makers in developments affecting Country. Consultation should occur early, be adequately resourced and include opportunities for ongoing partnerships and shared benefits where developments proceed.

Responsible Development of Artificial Intelligence

The Committee's terms of reference appropriately recognise that AI and data centres are intrinsically linked. AI offers considerable opportunities across healthcare, scientific research, disaster response, climate modelling and public administration. These applications should be considered where they provide genuine net public value. However, AI also dramatically increases computational demand and therefore the environmental footprint of digital infrastructure.

Australia currently lacks a regulatory framework that adequately considers whether AI development aligns with broader public interest objectives, including environmental sustainability. The government should ensure that AI policy incorporates environmental accountability alongside ethical, privacy and cybersecurity considerations. Responsible AI policy must recognise that technological progress should contribute to, rather than undermine, Australia's climate targets.

The Need for National Leadership

Australia requires a coordinated national approach to digital infrastructure planning. Current development is largely market-driven, with limited strategic oversight regarding future demand, appropriate locations, infrastructure capacity or environmental constraints.

Without stronger national coordination, Australia risks creating unnecessary pressure on electricity networks, water supplies and local communities while missing opportunities to integrate digital infrastructure with broader energy and climate planning. The Commonwealth should develop a **National Sustainable Data Centre Strategy** that establishes long-term planning objectives, coordinates infrastructure investment and provides nationally consistent environmental standards.

Recommendations

Currently the government has outlined 'expectations' of AI and data centre developments. We need strong, robust national regulations that are **mandatory**, with governing bodies created specifically to ensure these regulations are being adhered to.

Geelong Sustainability recommends that the Committee support the development of a nationally consistent regulatory framework for AI and data centres which includes:

1. Mandatory national environmental performance standards covering energy efficiency, renewable energy procurement, water use, lifecycle emissions and resource efficiency.
2. Public reporting requirements for electricity consumption, renewable energy sourcing, greenhouse gas emissions, water use and cooling technologies.
3. Requirements for data centres to contribute additional renewable generation, storage and firming capacity rather than increasing pressure on existing renewable supplies.
4. Stronger regulation limiting reliance on carbon offsets and prioritising genuine emissions reduction.
5. Mandatory cumulative impact assessments for electricity, water, biodiversity and surrounding communities before approval of major developments.
6. National planning that incorporates climate resilience, water security, biodiversity protection and cumulative infrastructure impacts.
7. Application of a climate justice framework that considers social equity, vulnerable communities and fair distribution of environmental impacts.
8. Meaningful consultation with local communities and Traditional Owners throughout planning, approval and operation.
9. Comprehensive environmental assessments that protect biodiversity, culturally significant landscapes and important habitats.
10. Greater transparency regarding agreements between governments and major AI companies where these arrangements influence nationally significant infrastructure development.
11. Development of a National Sustainable Data Centre Strategy that integrates digital infrastructure planning with Australia's emissions reduction, energy transition and climate adaptation objectives.
12. Expansion of Australia's AI regulatory framework to become mandatory and enforced, and to explicitly consider environmental sustainability, resource consumption and long-term public benefit alongside existing ethical and security considerations.

Conclusion

Artificial intelligence and digital infrastructure will play an increasingly important role in Australia's future. However, technological progress cannot come at the expense of climate action, ecological health or community wellbeing.

The rapid growth of data centres presents an opportunity for Australia to demonstrate international leadership by embedding sustainability, transparency and climate responsibility into digital infrastructure from the outset.

Geelong Sustainability encourages the Committee to recommend stronger national regulation that provides certainty for industry while safeguarding Australia's environment, supporting communities and ensuring AI and data centres contribute positively to a resilient, low-carbon future. This will require robust governance, enforceable environmental standards and long-term strategic planning that places equal value on technological advancement, climate responsibility and community wellbeing.