

Data Centres in Australia: Getting the Conditions Right

Submission to the NSW Legislative Council, Public Accountability and Works Committee

26 March 2026

Good Ancestors is an Australian charity providing evidence-based policy recommendations for Australia's biggest challenges. We work with experts around the world and help organise Australians for AI Safety.

This submission responds to Terms of Reference (c), (d), (g), and (h). It also addresses, in part, Terms of Reference (a), (e), and (j).

Data centres give Australia a seat at the AI table

AI is developing rapidly¹ and poised to be the most transformative technology of this era. The length and complexity of tasks AI can complete is expanding quickly² and the technology is being integrated into critical national security applications.³ Leading US technology companies are investing over USD \$650 billion in AI infrastructure in 2026 alone.⁴ Experts may disagree on timelines,⁵ but the consensus is that significant disruption lies ahead. There is a narrow window for Australia to act to capture value from, and shape, this transition.

As AI becomes more capable, it may centralise wealth and influence in a small number of companies within a small number of countries. This will be bad for countries that have no place in the AI value chain. Data centre investment is a hedge against this risk: the more disruptive AI becomes, the more economically valuable the infrastructure that runs it. Countries with AI infrastructure on their soil also have regulatory jurisdiction. They can set safety and operating standards, require compliance with domestic law, and hold companies to account. Countries without that foothold inherit whatever rules others write.

Building a sovereign frontier AI model is not a realistic option for Australia considering the timelines and costs at play. The 2025 National AI Plan appropriately avoided that ambition.⁶ The clearest path forward, and place in the AI value chain, is enabling an ambitious data centre buildout.

Where investment does not come to Australia, it goes elsewhere. If data centre buildout continues to slow in the US, Gulf states such as the UAE and Saudi Arabia are positioned to absorb demand.⁷ Neither country has Australia's democratic institutions, rule of law, or alignment with Australia's security partners. Infrastructure built abroad has no obligation to consider Australian interests,

¹ Epoch AI. (2026). [Data on AI capabilities and benchmarking](#).

² METR. (2026). [Task-completion time horizons of frontier AI models](#).

³ Sullivan, S. (2026). [Military AI as 'abnormal' technology](#). Lawfare.

⁴ Day, M & Bang, A. (2026). [How much is big tech spending on AI computing? A staggering \\$650 billion in 2026](#). Bloomberg.

⁵ Toner, H. (2025). ['Long' timelines to advanced AI have gotten crazy short](#). Rising Tide.

⁶ Department of Industry, Science and Resources (DISR). (2025). [National AI Plan](#). Australian Government.

⁷ OpenAI. (2025). [Introducing Stargate UAE](#).

comply with Australian law, pursue similar energy targets, or engage with Australian regulators. The argument for Australian data centres goes beyond capturing economic benefits. It is about ensuring that AI infrastructure of global consequence is built in places with accountable governance.

The Australian Government's recently published Expectations of Data Centres and AI Infrastructure Developers reflect the importance of AI infrastructure to the broader national interest.⁸ They correctly identify that attracting data centre investment and ensuring it serves Australia's national interest is possible, including when it comes to energy, water, workforce, and national security.⁴ Risks can be mitigated, and a mutually beneficial deal is possible.

This submission addresses three areas of concern the Committee is examining: electricity demand and emissions, water use, and governance.

Energy concerns are real but solvable with the right conditions

The NSW Department of Climate Change, Energy, the Environment and Water has advised that uncontrolled data centre growth could jeopardise NSW's legislated 2035 emissions target.⁹ Australian data centres currently consume about 2% of national electricity,¹⁰ which the CEFC estimates could reach 8–11% by 2035 – requiring 3.2 GW of new renewables and 1.9 GW of battery energy storage systems.¹¹

The national Expectations of Data Centres and AI Infrastructure Developers ask operators to underwrite new renewable energy supply, cover grid upgrade costs, and avoid passing demand-driven price increases to consumers.¹² There is precedent for AI companies meeting these conditions: in February 2026, Anthropic committed to cover 100% of grid infrastructure upgrade costs and offset consumer price increases.¹³ Amazon, Google, Meta, Microsoft, OpenAI, Oracle, and xAI have since signed a similar pledge.¹⁴ Colocation with Renewable Energy Zones and demand response obligations could also strengthen NSW's grid rather than strain it.¹⁵

Another option is to build behind-the-meter solutions and microgrids, where operators generate their own power and connect directly to renewable sources rather than drawing from the NEM.¹⁶ This could bypass many grid challenges altogether, including additional infrastructure costs and grid stability pressures.

There is also potential for positive impacts. Large-scale AI data centres provide large, predictable energy demand, which could provide the assured demand needed to de-risk clean energy investment and accelerate Australia's energy transition.

⁸ Department of Industry, Science and Resources (DISR). (2026). [Expectations of data centres and AI infrastructure developers](#). Australian Government.

⁹ The Greens NSW. (2026). [NSW parliamentary committee to scrutinise data centre boom in nation-first inquiry](#).

¹⁰ Oxford Economics Australia. (2025). [Data centre energy consumption report](#). AEMO.

¹¹ Clean Energy Finance Corporation (CEFC). (2025). [Getting the balance right: Data centres and the energy transition](#).

¹² Department of Industry, Science and Resources (DISR). (2026). [Expectations of data centres and AI infrastructure developers](#). Australian Government.

¹³ Anthropic. (2026, February). [Covering electricity price increases from our data centers](#).

¹⁴ White House Office. (2026, March). [President Trump secures historic commitment to keep electricity costs down amid data center boom](#).

¹⁵ Google. (2026). [Demand response data center milestone](#).

¹⁶ Fist, T. & Datta, S. (2024). [How to Build the Future of AI in the United States](#). Institute for Progress.

Building AI data centres in NSW has global ramifications. Global chip supply is constrained, meaning the limiting factor for new data centre construction is the chips that data centres use. That means new data centres built in Australia are likely displacing data centres that would otherwise be built elsewhere. An Australian buildout, with appropriate energy conditions in place, would likely be a net environmental benefit at the global level rather than a net cost.

Data centre water use is smaller than widely reported and can be managed

Data centre water use is currently about 0.04% of Australian industrial consumption.¹⁷ Some widely cited estimates suggest each AI prompt uses a bottle of water,¹⁸ and a bestselling book on AI claimed one proposed data centre would use more than a thousand times the annual water consumption of a local Chilean town. Both figures have since been corrected: the per-prompt estimate relied on worst-case assumptions; independent analysis suggests it's actually around 2 millilitres per prompt (including onsite and offsite water use).¹⁹ For context, a single piece of paper is produced using the equivalent of 2550 prompts worth of water.²⁰ The book's data centre figure was found to be overstated by a factor of approximately 1000,²¹ leading to a published correction by the author.²²

There are two considerations to be addressed regarding water and data centres. The first is indirect water usage: the dominant share of a data centre's total water footprint is the water used by power plants to generate a data centre's electricity, not within the facilities themselves.²³ Placing requirements on clean energy sourcing, such as what's outlined in the Government expectations, will help address this.²⁴ Wind and solar energy, for example, don't use any water in generation.²⁵

The second consideration is direct: the water used on-site for cooling. Technology exists to reduce this consumption substantially. Since August 2024, all new Microsoft data centres use cooling systems that consume zero water, saving more than 125 million litres per facility per year.²⁶ Anthropic has said it will use water-efficient cooling technologies in any Australian data centres it builds.²⁷ The national Expectations of Data Centres and AI Infrastructure Developers require efficient cooling technologies and non-potable water sources where possible – these can and should be conditions of approval.²⁸

¹⁷ Water Services Association of Australia (WSAA). (2025, December). [Data centres and water in Australia: A resource for sustainable data centre development](#).

¹⁸ Li, P., Yang, J., Islam, M. A., & Ren, S. (2023). [Making AI less thirsty: Uncovering and addressing the secret water footprint of AI models](#). arXiv.

¹⁹ Masley, A. (2025, October 11). [The AI water issue is fake](#).

²⁰ Water Footprint Calculator. (2022). [The hidden water in everyday products](#).

²¹ Masley, A. (2025). [Empire of AI is wildly misleading about AI water use](#).

²² Hao, K. (2025, December 17). [Empire of AI: Water chapter corrections](#).

²³ Mytton, D. (2021). [Data centre water consumption](#). *npj Clean Water*, 4(11).

²⁴ Department of Industry, Science and Resources (DISR). (2026). [Expectations of data centres and AI infrastructure developers](#). Australian Government.

²⁵ Mytton, D. (2021). [Data centre water consumption](#). *npj Clean Water*, 4(11).

²⁶ Microsoft. (2024). [Sustainable by design: Next-generation datacenters consume zero water for cooling](#).

²⁷ Senate Select Committee on Information Integrity on Climate Change and Energy, Parliament of Australia. (2026). [Proof Committee Hansard](#).

²⁸ Department of Industry, Science and Resources (DISR). (2026). [Expectations of data centres and AI infrastructure developers](#). Australian Government.

Large-scale AI data centres should be critical infrastructure

Large-scale AI data centres are becoming critical national infrastructure. The Committee should recommend that the NSW Government engage the Commonwealth on whether large-scale AI data centres meet the threshold for coverage under the Security of Critical Infrastructure Act 2018.

As AI becomes foundational to the Australian economy, the data centres training and operating general-purpose AI models warrant the ownership transparency, incident reporting, risk management, and crisis coordination obligations that critical infrastructure status entails. Good Ancestors has previously highlighted that these facilities likely fall outside the current scope of the Security of Critical Infrastructure (SOCl) Act 2018, despite their importance, due to definitional constraints.²⁹ Subsequently, an independent review of the SOCl Act recommended expanding coverage to include AI infrastructure and service.³⁰ The NSW Government should support the Commonwealth in acting on that recommendation.

If NSW attaches conditions that are genuinely unworkable, investment will concentrate elsewhere – either in Gulf states with weaker governance alignment, or in the US, reinforcing the existing concentration of AI infrastructure in a single jurisdiction.

Conclusion

The NSW Government's approach to data centre development should be guided by the Australian Government's Expectations of Data Centres and AI Infrastructure Developers.

The key question for this inquiry is not whether to treat data centre growth as an environmental problem to be contained, but what conditions make it compatible with NSW's energy, water, and community objectives – and how to ensure those conditions are met. Concerns raised in the terms of reference have achievable responses. The alternative – regulatory settings that make NSW an unattractive destination – does not avoid those concerns. It simply relocates them, along with the economic and governance benefits, elsewhere.

²⁹ Good Ancestors. (2026). [Review of the Security of Critical Infrastructure](#).

³⁰ Slay, J. (2026). [Independent review of the Security of Critical Infrastructure Act 2018 \(SOCl Act\)](#).