ADM+S

ARC Centre of Excellence for **Automated Decision-Making and Society**

ADM+S Submission to Senate Environment and Communications References Committee Inquiry on Artificial Intelligence and Data Centres

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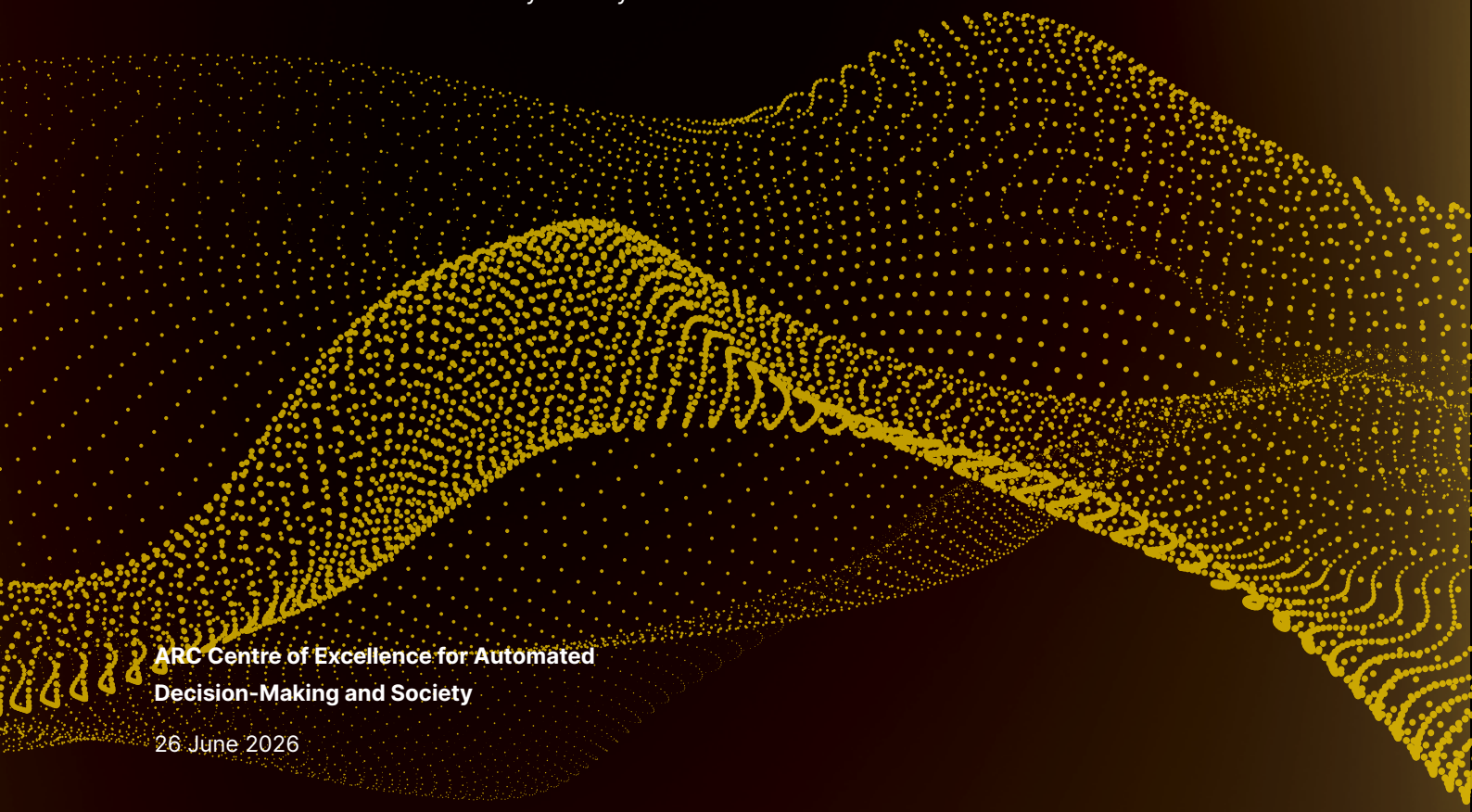

ARC Centre of Excellence for Automated Decision-Making and Society

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Acknowledgement of Country

In the spirit of reconciliation, we acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

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About ADM+S

The ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) is a cross-disciplinary, national research centre established and supported by the Australian Research Council to create the knowledge and strategies necessary for responsible, ethical, and inclusive automated decision-making, including AI. ADM+S is pleased to have this opportunity to engage with Senate Environment and Communications References Committee Inquiry on Artificial Intelligence and Data Centres.

This submission is a product of The Regulatory Project and ADM + Ecosystems, two ADM+S signature projects.

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This Submission

This submission focuses on the following Terms of Reference:

a) the effectiveness of existing regulatory frameworks in managing the growth of data centres in Australia, including in relation to existing and future deals between the Government and global Artificial Intelligence (AI) companies;
b) the potential impacts of AI and data centres on Australian communities, industries and the environment, water and energy.

The submission is the product of a collaborative process involving direct contributions from the above researchers from ADM+S. ADM+S researchers come from many different institutions, disciplines and perspectives. It should not be assumed that every contributing author, or every member of the Centre subscribes to every comment or recommendation made below. The submission represents our best effort to consolidate research and thinking in a way that can be useful to the Inquiry on Data Centres. We would be very happy to engage further with the future stages of this important inquiry.

Executive Summary

Data centres have been an important object of study for ADM+S researchers because they provide critical infrastructure for the storage, processing, and distribution of all kinds of data including environmental data. The unique nature of the Australian environment and the stresses that already put ecosystems under pressure means it is vital to consider how data centres impact land, water, and energy use. Additionally, the significance of Country and First Nations custodianship must shape how environmental impacts are understood and anticipated. Our research shows that safe and responsible approaches to artificial intelligence and the digital futures of Australia and Australians require prioritising sustainable futures for people and the environment.

Australia's National AI Plan promises that Australia will spread the benefits of AI. Across jurisdictions, current approaches prioritise fast-tracking of data centre that bypasses community participation. Combined with a lack of coordination and clear strategy, there is a real risk that Australia socialises the very material, very physical, and very real health risks caused by the infrastructure requirements of AI - while privatising the benefits. The National AI Plan also promises Australians that the government is “ensuring data centre growth supports sustainability, strengthens energy security, and drives investment in clean technologies.” Breaking these promises to the Australian people would be a breach of faith, with significant, and lasting social, environmental, and political costs.

This submission focuses on the need for a stronger whole-of-life public accountability framework for data centres in Australia, treating them as infrastructure with significant environmental, social, cultural, and public-interest implications rather than as routine industrial development alone. First and foremost, it argues that Australia should halt the fast-tracking of data centre developments immediately and develop a rigorous, public interest regulatory framework. The submission the considers the existing regulatory framework around approvals, the need for processes based around community consent, and the importance of operational monitoring and reporting and subsequent decommissioning requirements that strengthen public accountability. Finally, it provides lessons from other jurisdictions that illustrate the potential for effective, targeted regulation. Together, these stages provide the structure for a stronger public accountability framework that serves the public interest and protects the environment of Australia.

Recommendations

1: Fast-tracking should be abolished for data centres.

2: National frameworks and standards should be designed and implemented.

3: Data centre operators should be required to disclose clients and uses to enable public accountability.

4: Sovereign compute capacity should be expanded through public investment in publicly owned data centres.

5: Community consent should replace community consultation.

6: Establish a standardised operational reporting framework for data centres.

7: Develop a cumulative impact and upgrade assessment framework for expanding facilities and clustered developments.

8: Strengthen public transparency, community consent, and Indigenous authority across the operational life of data centres.

9: Establish a standardised decommissioning framework for data centres.

10: Require decommissioning and rehabilitation plans from the outset, backed by an appropriate bond.

11: Embed public accountability, Indigenous engagement, and respect for Country in decommissioning processes.

12: Comprehensively examine other jurisdictions for best practice policies, frameworks, and regulations that can be adapted to Australia.

Detailed Submission

Introduction

1. AI data centres are currently projected to grow exponentially in Australia, with large concentrations in Western Sydney and Melbourne. Published in late 2025, Australia's National AI Plan promises that Australia will spread the benefits of AI. Across jurisdictions, current approaches prioritise fast-tracking of data centres that bypasses community participation. Combined with a lack of coordination and clear strategy, there is a real risk that Australia socialises the very material, very physical, and very real health risks caused by the infrastructure requirements of AI (including significant adverse environmental impacts for communities living near data centres)- while privatising the benefits. The National AI Plan also promises Australians that the government will ensure that "[data centre] growth is sustainable and secure" and that "data centre growth supports sustainability, strengthens energy security, and drives investment in clean technologies."[1] Breaking these promises to the Australian people would be a breach of faith, with significant, and lasting social, environmental, and political costs.

2. Data centres are materially intensive developments with significant demands on land, energy, water, and associated networked infrastructures. Their environmental impacts are extensive and should not be understated. As the International Energy Agency has noted, data centres are becoming increasingly significant electricity consumers as demand for cloud services and AI expands.[2] A Climate Council report has found that by 2030, data centre development in Australia is projected to triple their current electricity and water usage. This would equal 12TWh of electricity, which is the same amount needed to power all homes in Victoria. By 2049-50, the electricity demand is expected to further increase to 34 TWh, equivalent to 12% of power in Australia's National Energy Market (NEM).[3] At the global scale, a United Nations affiliated institute has reported that in 2025, data centres consumed an estimated 448 TWh of electricity. If data centres were a country, that level of electricity use would rank them 11th globally. If the current trajectory holds, the global data centre electricity demand could roughly double to 945 TWh by 2030 – almost triple the combined annual electricity use of Pakistan, Bangladesh, and Nigeria, which are collectively home to more than 650 million people.[4]

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[1] 'National AI Plan', Policy Plan, Department of Industry, Science and Resources; Australian Government, 2 December 2025, https://www.industry.gov.au/publications/national-ai-plan.
[2] International Energy Agency, Energy and AI (Paris: IEA, 2025), https://www.iea.org/reports/energy-and-ai
[3] Climate Council, 'Seizing the Opportunity to Do Data Centres Right', *Climate Council*, 3 June 2026, https://www.climatecouncil.org.au/what-does-the-data-centre-boom-mean-for-australias-switch-to-renewables/
[4] Aczel, M., Chamanara, S., Matin, M., Farsi, A., Marwala, T., Madani, K. *Environmental Cost of AI's Energy Use: Carbon, Water and Land Footprints*. United Nations University Institute for Water, Environment and Health (UNU-INWEH), Richmond Hill, Ontario, Canada, 2026.

3. A recent Greenpeace Australia Pacific report argues that current claims by Australian data-centre operators to support the energy transition through renewable procurement are not independently substantiated.[5] It warns that, without urgent regulatory intervention, rapid data-centre expansion risks derailing Australia's energy transition, and finds that none of the operators analysed adequately proved claims to be driving new renewable energy growth through truly additional power purchase agreements. Importantly, the study shows that data centres are in fact leading to a boom in gas projects in Australia. In NSW, Cloud Carrier's proposed gas-fired project alone would wipe out NSW's entire projected 2028 emissions cuts.

4. In addition to their impacts on the energy grid, data centres typically incorporate backup power systems, which have significant local impacts including heat, noise, traffic and air pollution. Their development also entails wider infrastructure and land-use change, including transmission, substations, water and drainage systems, transport access, and large built-form footprints that can have significant impacts on the environmental and cultural character of whole areas or regions. [6]

5. The environmental impacts of AI should be understood in relation to the broader AI supply chain. Data centres are only one visible node in a wider infrastructure of extraction, hardware production, transport, energy supply, maintenance, and disposal, through which the environmental and social costs of AI are distributed. [7] To assess only the footprint of the facility itself is to understate the wider material demands that make AI systems possible. Data centre burdens are thus displaced across sites of mining, manufacture, logistics, operation and end-of-life processing. These pressures are becoming more significant as cloud computing and AI services are taken up by companies, governments, and the public.[8]
6. Any assessment of AI and data centre impacts in Australia should also centre Indigenous knowledges, authority and community ownership to address their impacts on Country. Country is living and relational, shaped by cultural obligation,

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[5] Ketan Joshi, Energy Vampires: The AI Data Centres Draining Australia Sydney: Greenpeace Australia Pacific, 2026, https://www.greenpeace.org.au/static/planet4-australiapacific-stateless/2026/05/1032fdf5-data-centres-report-greenpeace.pdf.
[6] Lawrence Berkeley National Laboratory, "Water Efficiency," *Centre of Expertise for Data Centre Efficiency*, see also Nuoa Lei, Jun Lu, Arman Shehabi, and Eric Masanet, "The Water Use of Data Center Workloads: A Review and Assessment of Key Determinants," *Resources, Conservation and Recycling* 219 (2025): 108310; N. Gour and M. Ash, "Health implications of the rapid rise of data centres in Virginia: an exploratory assessment," *Frontiers in Climate* 8 (2026): 1648912.
[7] United Nations Environment Programme, *Artificial Intelligence (AI) End-to-End: The Environmental Impact of the Full AI Lifecycle Needs to Be Considered* (Nairobi: UNEP, 2024).
[8] Ana Valdivia, "The Supply Chain Capitalism of AI: A Call to (Re)Think Algorithmic Harm and Resistance through Environmental Lens," Information, Communication & Society (2025). L. Cellard, C. Parker, and F. Haines, "Beyond AI as an Environmental Pharmakon: Principles for Reopening the Problem-Space of Machine Learning's Carbon Footprint," *Environment and Planning E: Nature and Space* 8, no. 3 (2025): 1020–45. OECD, "Competition in Artificial Intelligence Infrastructure," OECD Roundtables on Competition Policy Papers, no. 330 (Paris: OECD Publishing, 2025).

custodianship and continuing connection. Impact on Country is not limited to data centre sites. In Australia, recent research finds that 57.8 per cent of the critical minerals projects inputting to data centres and AI are located in areas where Indigenous peoples have a right to negotiate, rising to 79.2 per cent when native title claims are included, showing that the material supply chains supporting digital infrastructure frequently extend across Indigenous lands.[9] Indigenous authority and consent should be at the centre of data centre regulation.

7. New data centres or the expansion of existing facilities typically prioritise economic or business interests over those of communities or the local environment. Yet data centres are often built close to homes, parks, schools, hospitals, and other community facilities. Consultation processes tend not to provide agency to communities because they are not framed around active consent or other models that empower communities to decide on developments that will materially impact them. One project in Katoomba, NSW, proposes locating a 3,118 sqm data centre next to a public primary school, which will severely impact the learning conditions of children and their families.[10]

8. The rapid development and concentration of Data Centres in Western Sydney and Melbourne has prompted significant community backlash to the construction and operating noise, physical scale, diesel generator exhaust, and lack of community consent or consultation. Ongoing negative impacts on the health and wellbeing of people and environments in the vicinity of data centres and on broader emissions reduction efforts are also contributing to growing public disapproval.[11]

9. Evidence from other jurisdictions shows that there is increasing and widespread community opposition to data centres, especially as the number, size and environmental footprint of data centres grows. Research conducted by Data Centre Watch reveals that as much as USD $64 billion worth of projects have been either blocked or delayed across the US, as a result of organised community opposition. It points out that despite the enthusiastic uptake of AI products like ChatGPT across many sectors and within the public, communities are nonetheless "not embracing the physical infrastructure behind it".[12] In the US, this opposition is bipartisan, growing, and becoming better organised.[13] Similarly, organised

[9] Burton, D. O'Faircheallaigh, et al., "Mapping Critical Minerals Projects and Their Intersection with Indigenous Peoples' Land Rights in Australia," *Energy Research & Social S*cience 113 (2024): 103565
[10] Ma, J. (2026, June 24). "Data Centre Proposed Next to Public School in Katoomba, Southeastern Australia". *Data Centre Dynamics.* https://www.datacenterdynamics.com/en/news/data-center-proposed-next-to-public-school-in-katoomba-southeastern-australia/
[11] Taylor, J., & reporter, J. T. T. (2026, May 2). Under a cloud: The growing resentment against the massive datacentres sprouting across Australian cities. *The Guardian.* https://www.theguardian.com/technology/2026/may/03/ai-datacentres-australia-opposition
[12] Data Center Watch, "$64 Billion of Data Centre Projects Have Been Blocked or Delayed amid Local Opposition," accessed March 27, 2026.
[13] Robert Bryce, Data Center Rejection Database, https://www.robertbryce.com/rrdb?db=datacenter.

opposition to data centres has also been steadily growing across Europe, with some groups focused on specific cities/regions and others operating transnationally. Some groups, like the Spanish Tu Nube Seca Mi Rio are campaigning against excessive water use, while others like Save the Wieringermeer in the Netherlands are organising to protect farmland from being turned into data centres. This opposition has led the European Union to adopt the Energy Efficiency Directive (EED), the first comprehensive reporting framework for data centres, which aims to bring transparency to the sector's energy consumption.[14] It has also led 41 Mayors from six continents, led by Melbourne Lord Mayor Nicholas Reece, to launch the Global Urban Data Centre Pact to respond to their residents' concerns about the rapid rise of both AI and digital infrastructures without sufficient attention to creating sustainable and equitable futures for their cities. The pact calls for clear standards for sustainable urban data centres that will 'not come at the expense of natural resources, energy prices, or climate targets'.[15]

10. The Australian Government's new "Expectations of data centres and AI infrastructure developers" framework provides a national signal about how data-centre projects should align with the public interest. [16] But the framework is best understood as high-level guidance rather than a detailed regulatory instrument: it states broad expectations and says the Commonwealth will "prioritise" proposals that align with them, while leaving implementation largely to existing approval systems and future coordination with states and territories. Streamlined approvals without appropriate regulatory frameworks pose considerable risks to our communities, our environment, and our economy. Robust regulation and policy are now required to establish the frameworks and rules under which data centres are approved, monitored, regulated, and decommissioned.

11. Data centres are often framed as essential digital infrastructures necessary to support cloud services, platforms, and AI systems. But the forecast of AI and data centre driven productivity and economic growth is contested. A survey of 6000 business executives in the US, UK, Germany and Australia revealed that despite widespread adoption, there were productivity benefits were unclear, with over 80% of businesses reporting no productivity gains over the previous three years.[17] Such statistics are leading to warnings that the AI bubble will burst, comparisons

[14] Raluca Besliu, Aniket Narawad, and Anna Toniolo, "Infrastructure or Intrusion? Europe's Conflicted Data Centre Expansion," *AlgorithmWatch*, July 25, 2025.
[15] C40 Cities, Press Release: Mayors from around the world unite in call for sustainable urban data centres, 23 June 2026 at https://www.c40.org/news/mayors-from-around-the-world-unite-in-call-for-sustainable-urban-data-centres/
[16] Department of Industry, Science and Resources, *Expectations of Data Centres and AI Infrastructure Developers* (Canberra: Australian Government, March 23, 2026).
[17] Ivan Yotzov, José María Barrero, Nicholas Bloom, Steven J. Davis, Scott Leatherbury, Brent Meyer, and Emil Mihaylov, "Firm Data on AI," NBER Working Paper no. 34836 (Cambridge, MA: National Bureau of Economic Research, February 2026), https://www.nber.org/papers/w34836.

with the dot-com bubble of the 1990s and calls to shift away from the hyperscale model of AI that demands training on large datasets (and therefore large data centres).[18]

12. Demand for data centres may not align with the hype and investment surrounding AI. The issue of "phantom demand" in the Australian data centre market makes transparent planning very difficult. According to a report by Oxford Economics (commissioned by Amazon Web Services), 6 in every 7 MWs of connection requests are expected not to materialise.[19] In 2025, of the 44GW of requested connections, only 6GW were expected to go ahead. Multiple connection requests are typically made for the same project as competing developers and providers all submit separate proposals for the same facility. The extreme growth in connection requests are speculative attempts to capture future demand. The number of unlikely requests places undue burden on utility providers and massively inflates expected demand.

13. As a result, the public-interest case for rapid data centre expansion should not rest on contestable forecasts about AI-driven social or economic value, which are not yet evident in aggregate productivity statistics. [20] Similarly, the demand for new data centre developments should also not be assumed, given the documented disparity between announced projects and buildouts in the United States.

14. The unique characteristics of data centres render them a matter of public accountability, not merely private investment or technical planning. The overarching priority should be for Australians to be able to decide if or when such development is justified, under what conditions it should proceed, and how ongoing governance promotes public interest in the long-term. This requires a framework that moves beyond narrow questions of location and initial approval to include public accountability, ongoing oversight, community impact, and responsibilities across the entire lifecycle of these facilities.

15. This submission argues that all fast-tracked or prioritised approvals for data centres should be halted at every level. Rather than accelerating approval speeds, the Federal Government should lead the way in constructing a rigorous, community-centred approach to data centre applications and approvals. Within

[18] Paul Kedrosky, "Data Center Buildout Slowed Sharply," Paul Kedrosky, March 19, 2026. Luke Munn, 'Friday Essay: Despite the AI Hype, Some Experts Warn of a Bubble – What Happens If It Pops?', *The Conversation*, 11 June 2026, https://doi.org/10.64628/AA.d9rgafqmq.; Ganesh Sitaraman, 'We Must Prepare For an AI Bubble Now', Ideas, *Time*, 26 March 2026, https://time.com/article/2026/03/26/we-must-prepare-for-an-ai-bubble-now/.

[19] Oxford Economics Australia, "Estimating Data Centre 'Phantom Demand'," Oxford Economics, November 21, 2025, https://www.oxfordeconomics.com/resource/estimating-data-centre-phantom-demand/.

[20] Organisation for Economic Co-operation and Development (OECD), OECD Compendium of Productivity Indicators 2025 (Paris: OECD Publishing, 2025). See especially the discussion noting that AI's impact is "not yet evident in the productivity statistics" and that any gains depend on complementary investments and organisational change.

that process, focus should shift from community consultation to community consent.

16. At the same time, we need strong and uniform standards for monitoring, reporting, and decommissioning across Australian jurisdictions. Strong monitoring and reporting ensure public accountability and build an evidence base over time regarding social, health, and ecological impacts. Decommissioning requirements are vital because they place responsibility for the safe disposal of materials and remediation of land on those who benefited from the operation of the data centre, rather than offloading those costs to local and state governments, or directly onto communities themselves.

17. This submission responds to two specific Terms of Reference of the Inquiry:

    the effectiveness of existing regulatory frameworks in managing the growth of data centres in Australia, including in relation to existing and future deals between the Government and global Artificial Intelligence (AI) companies; the potential impacts of AI and data centres on Australian communities, industries and the environment, water and energy.

18. To avoid replication and provide an integrated analysis, our responses are structured around the regulatory oversight required across the life cycle of a data, followed by best-practice examples from other jurisdictions.

    A. Fast Tracking of Data Centres Reduces Public Accountability
    B. Existing Regulations Are Inadequate
    C. Rigorous Operational Monitoring and Reporting
    D. Responsible Decommissioning
    E. Lessons from other Jurisdictions

A. Fast Tracking of Data Centres Reduces Public Accountability

The rapid expansion of large data centres in Melbourne's inner west is creating fire-safety concerns. Data centres operate 24/7 and primarily rely on back-up diesel generators as well as lithium-ion batteries to ensure an uninterrupted power supply and prevent data loss in the event of a grid outage. The tech giant NextDC for example plans to store 3.5 million litres of diesel and 900 tonnes of lithium-ion batteries on site in its data centre in Port Melbourne. The approval application for this data centre was fast-tracked under the state government's Development Facilitation Program and was approved in only 75 days. In addition, the proposed Perri Melbourne Data Centre (PMDC) in West Footscray, just a couple hundred metres from NextDC's M3 facility, was initially objected to by WorkSafe Victoria for its storage of 510,000 litres of diesel directly across the road from homes. The decision was amended by WorkSafe three months later. Collectively, PMDC and NextDC will store around 2.4 million litres of diesel in very close proximity.

In an investigative report, ABC has revealed that Fire Rescue Victoria (FRV) insiders shared their concerns about the concentration of diesel fuel, lithium-ion batteries and high-voltage equipment in these facilities, especially the risk of thermal runaway fires.[21] Data centre fires are hard to extinguish because of the design of the structures where individual areas are compartmentalised and difficult to access. The National Construction Code does not set out specific requirements for data centres and developments must instead meet the general fire safety requirements that apply to multi-residential, industrial and office buildings. Despite concerns being raised during the approval process of NextDC e.g, the approvals are still granted as FRV is not the determining authority in planning decisions and its advice is not always enforceable.

Large-scale data centres store hundreds-of-thousands or even millions of litres of diesel in order to power generators in the case of outages. Importantly, even if no outage occurs, diesel generators must be tested on a monthly or even weekly basis which produces significant air pollution. Furthermore, diesel quality degrades over time meaning that fuel must be continually replenished even if it is not used by a generator. The close proximity of data centres with significant reserves of stored diesel near local residents poses significant health, safety, and environmental risks due to the pollutants emitted from the maintenance of back-up generators and the associated fire risks. Reliance on diesel for redundancy means that even if renewable energy is predominantly used, these data centres still directly contribute to carbon dioxide and nitrogen oxide emissions. Examples from the US provide a cautionary tale: xAI's Colossus data centre in Memphis emits significant amounts of NOx from gas turbines. West Melbourne is already plagued with higher rates of air pollution and chemical contamination, and data centres approved (or approved for expansion) without sufficient foresight will only exacerbate this trend.

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[21] Leanne Wong, 'Fire Insiders Raise Alarm about Melbourne's Data Centre Expansion', News, *ABC News* (Melbourne), 8 June 2026, https://www.abc.net.au/news/2026-06-09/firefighter-concern-over-data-centres-in-melbourne-west/106762858.

Recommendation 1: Fast-tracking should be abolished for data centres.
The Commonwealth should require all data centres to undergo a rigorous approval process that prioritises environmental impacts and protections, health and social implications, and replaces "consultation" with "consent" as the primary mode of engagement with First Nations and other communities.

B. Existing Regulations Are Inadequate

A patchwork of frameworks currently regulates data centres in Australia at State, Territory and Federal levels. Below we summarise regulatory frameworks in two jurisdictions – New South Wales and Victoria – to illustrate the inadequacy of the status quo.

New South Wales

NSW does not have a stand-alone sustainability reporting regime for data centres at the approval stage. Instead, data centre regulation is dispersed across planning law, Secretary's Environmental Assessment Requirements (SEARs), building standards, EPA licensing, pollution law, and federal emissions and energy reporting. While NSW planning instruments recognise data centres as high-technology industry and allow larger projects to be assessed as State Significant Development (SSD), the current framework is stronger at requiring disclosure than at imposing enforceable sustainability limits. Streamlined SEARs for SSD data storage centres require proponents to assess energy and water use, emissions, biodiversity, air quality, waste, hazards, heritage, Aboriginal cultural heritage, and social impacts, but they generally do not impose hard thresholds that would automatically prevent approval where impacts are excessive. This problem is intensified by SSD fast-tracking, exemptions from some approvals, limits on merits review, the absence of data centres from key environmental legislation, and the risk that accelerated processes compress meaningful community consultation.[22]

Further weaknesses include limited Indigenous control over cultural heritage assessment, proponent-driven social impact assessment, undefined "social locality" boundaries, inadequate attention to cumulative impacts from clustered developments, and insufficient scrutiny of upstream and downstream AI and cloud infrastructure supply chains. Overall, data centres should be regulated not merely as economic or digital infrastructure, but as environmental security sites whose energy, water, land, emissions, ecological, community, and cultural impacts directly affect the resilience of the systems on which social, political, and national security depend.[23]

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[22] Qadir, S., Richardson, M., Parker, C., Przhedetsky, L., Lupton, D., Bailey-Charteris, B., Haines, F., Bello y Villarino, J-M., Holley, C. (2026). Submission to the NSW Legislative Council Public Accountability & Works Committee on Data Centres in NSW. ARC Centre of Excellence for Automated Decision-Making and Society

[23] Tobias Ide, "Climate Change and Australia's National Security," Australian Journal of International Affairs 77, no. 1 (2023): 26–44; Sibusiso Hlabisa, "Energy, Water, Materials, and Land Limits of Digital Systems," Discover Sustainability (2025).

Victoria

Victoria is one of three Australian jurisdictions with a dedicated "Sustainable Data Centre Action Plan" which lays down broad guidelines for the state with respect to sustainability and efficiency goals when approving data centres.[24] However, these remain abstract principles with no strict threshold limits to determine sustainability of proposed projects. In addition, new data centre developments and expansions are regulated through a patchwork of general planning, environmental, building, cultural heritage, water, waste and emissions regimes rather than through a coherent data-centre-specific sustainability framework. Data centres are generally treated within the planning system as a form of utility installation.[25] Their approval depends on zoning, local planning schemes, environmental assessment requirements, native vegetation controls, Aboriginal cultural heritage obligations, building standards, water authority requirements and, in some cases, Commonwealth environmental approvals.[26]

While this layered framework can require proponents to address issues such as land-use compatibility, biodiversity, noise, air emissions, stormwater, e-waste, water use, cultural heritage and climate risk, it remains largely reactive and discretionary. In particular, it does not impose clear sector-specific thresholds for energy consumption, water extraction, greenhouse gas emissions, cumulative infrastructure impacts or community harm, nor does it adequately account for the clustered and system-wide effects of hyperscale data centres on electricity grids, water systems, land use and environmental justice.

Expedited planning pathways, such as ministerial facilitation mechanisms, further risk prioritising economic development and digital infrastructure investment over meaningful public scrutiny, community participation and ecological precaution.[27] As a result, although Victoria's existing regulations provide multiple points of environmental oversight, they are insufficient to govern data centres as environmentally intensive infrastructures whose impacts extend beyond individual sites and implicate broader questions of climate resilience, resource security, Indigenous accountability and democratic control over digital development.

Rest of Australia

Outside of NSW and Victoria (and with the notable exception of South Australia where data centre specific planning protocols have been developed), Australian jurisdictions remain dependant on general and fractured assessment processes. In addition, fast-

[24] 'Sustainable Data Centre Action Plan', Policy Plan, Department of Jobs, Skills, Industry and Regions, Department of Jobs, Skills, Industry and Regions, 6 March 2026, Victoria, https://djsir.vic.gov.au/priorities-and-initiatives/ai-mission-statement/sustainable-data-centre-action-plan.
[25] Victoria Planning Provisions, clause 73.03 — "Land Use Terms", 6.
[26] See, 'Guide to Victoria's Planning System: Chapter 3 Planning Permits', Government, Victoria State Government, Department of Transport and Planning, 26 November 2025, https://www.planning.vic.gov.au/guides-and-resources/guides/guide-to-victorias-planning-system/planning-permits.
[27] See, DFP Expedited Planning Pathways Guidance: Clause 53.22 (significant economic development). Plan For Victoria, Department of Transport and Planning, 20 June 2026.

tracking mechanisms are being prioritised in most jurisdictions, with the result that council and community level approvals are side-stepped in favour of ministerial approvals. While fast-tracking pathways can sometimes improve inter-agency coordination, they generally do not impose hard limits on data-centre energy use, water use, emissions, diesel backup generation, cumulative clustering, or community impact.

Recommendation 2: National frameworks and standards should be designed and implemented.
The Commonwealth should develop a nation-wide regulatory data centre specific regulatory framework that enforces strict threshold limits for energy and water usage as well as emission targets and prevents forum shopping by investors. Ensuring consistency across jurisdictions enables stronger and more comparable monitoring and reporting, while preventing operators from shopping between States and Territories for better conditions.

C. Responsible, Sovereign Data Centre Development

Our ongoing empirical research with citizen scientists, environmental modellers, and their partners in local government and state agencies shows that access to compute is increasingly crucial to enable analysis informing bushfire management, conservation, and climate research. However, commercial data centres rarely prioritise or enable this work, and actors are required to purchase access at market rates in competition with business or seek access to the limited capabilities of the National Computing Infrastructure. Access to data centres and their compute power for nationally beneficial environmental, health or social research and programs should not be dependent on for-profit hyperscale providers who do not disclose the uses of their data centres or platforms. Instead, government and public institutions like universities should be able to construct fit-for-purpose partnerships to build their own sovereign data centre capacity for their own purposes that will be used in the public interest, protected by appropriate safeguards that ensure national research and public interest use of these computing infrastructures.

Recommendation 3: Data centre operators should be required to disclose clients and uses to enable public accountability.
A Commonwealth framework should require data centre operators to disclose planned clients and uses as part of approval proposals and maintain regular disclosures throughout the life cycle. Doing so strengthens public accountability and enables planners and policymakers at all levels to make informed decisions about the public interest value of data centre developments.

Recommendation 4: Sovereign compute capacity should be expanded through public investment in publicly owned data centres.
The Commonwealth should prioritise investment in data centres that serve the public good through scientific applications, climate modelling and climate change preparedness, public health, and disaster planning and relief, among other applications. Without government intervention, commercial operators will not prioritise socially and environmentally responsible and beneficial uses of big data analysis, AI models, and automated tools.

D. Community Consent, Not Consultation

Public opposition to data centres in the United States has become geographically widespread and politically consequential, with communities challenging projects not simply as ordinary industrial development but as infrastructure that externalises energy, water, land-use, noise, air-quality and cost burdens onto local residents. In a recent poll, Gallup found that 71% of Americans oppose construction of AI data centres in their local area**,** with opposition linked mainly to environmental, resource-use, cost, pollution and quality-of-life concerns,[28] while Reuters/Ipsos found that only 33% of Americans support the rapid pace of AI data-centre construction and 57% would oppose a data centre in their own community. [29]

In Pittsylvania County, Virginia, residents successfully opposed Balico's proposed data-centre "MegaCampus" and associated **3**,500 MW gas-fired power plant, which would have involved dozens of data centres and large-scale conversion of rural agricultural land into energy-intensive industrial infrastructure.[30] Similar contestation is evident in Georgia**,** where Atlanta and DeKalb County communities have mobilised against data centres on the basis that they consume large amounts of water and electricity, provide relatively few long-term jobs, and crowd out other land uses such as housing; DeKalb County responded by extending a moratorium and developing rules requiring buffers from residential areas, parks and transit, as well as noise, water, energy, transmission-line and tree-preservation studies.[31] In the Memphis/Southaven region, environmental justice concerns have led to opposition to data centres, with the NAACP and the Southern Environmental Law Centre suing xAI over allegations that gas turbines powering its data-centre operations were being operated without proper air permits,

[28]Jeffery M. Jones, 'Americans Oppose AI Data Centers in Their Area', Gallup.Com, 13 May 2026, https://news.gallup.com/poll/709772/americans-oppose-data-centers-area.aspx.
[29] Valerie Volcovici and Jason Lange, 'Americans Wary of AI-Driven Data Center Boom, Reuters/Ipsos Poll Shows', United States, *Reuters*, 11 June 2026, https://www.reuters.com/world/us/americans-wary-ai-driven-data-center-boom-reutersipsos-poll-shows-2026-06-11/.
[30] 'Data Center Defeated: How Pittsylvania Said, "No, Thank You," to a Massive Gas-Fired Power Plant and Data Center Campus.', *Southern Environmental Law Center*, 22 June 2026, https://www.selc.org/news/a-rural-virginia-county-is-a-case-study-in-community/.
[31] Alyssa Johnson, 'How Atlanta Communities Are Stopping Data Center Development', *Capital B News - Atlanta*, 20 January 2026, https://atlanta.capitalbnews.org/atlanta-communities-fight-data-centers/.

raising concerns about air pollution, public health and the use of fossil-fuel infrastructure to support AI expansion.[32]

This backlash has become strong enough that some US jurisdictions have moved from ordinary planning controls to moratoria or proposed bans on data-centre construction or permitting**:** the National Conference of State Legislatures reported in June 2026 that lawmakers in 14 states were considering data-centre development bans or moratoria, including proposals in Georgia, Michigan, Minnesota, New York, Pennsylvania, South Carolina, Vermont and Virginia; Maine's legislature passed a moratorium on municipal and state permitting for data centres over 20 MW until November 2027, although it was vetoed by the governor, and New York's legislature passed a moratorium bill for large data centres that was awaiting the governor's signature.[33] Taken together, these examples show that US public opposition is not merely aesthetic or "not-in-my-backyard" resistance, but a broader challenge to the assumption that data centres should receive fast approvals, tax incentives and grid access without stronger public-interest tests, cumulative-impact assessment and enforceable environmental safeguards.

Public opposition to data centres has already begun in Australia, including in the Lane Cove area of Sydney and in Hazelmere, Western Australia. Residents have expressed concern about the environmental impacts of new hyperscale data centres as well as issues such as air, noise and light pollution from these facilities when built near residential areas or bushland hyperscale data centres, similar public backlash can be expected.[34] Residents in Moss Vale, NSW, recently protested against the building of a gas-fired power stations to fuel data centres, while Katoomba, in the Blue Mountains of NSW, has seen growing opposition to data centre developments.[35] Greenpeace Australia has begun to run campaigns against the rushed rollout of hyperscale data centres in Australia, highlighting the energy and water resource use and burdens on local ecosystems. Social research by ADM+S has demonstrated that Australians are becoming increasingly aware of and concerned about the environmental risks of the expansion of hyperscale data centres to support general purpose generative AI companies.[36] They want to see governments taking steps to better regulate the

[32] Alex Rozier, "NAACP Sues xAI over Data Center Turbines in Southaven", Mississippi Today, Environment, 15 April 2026, https://mississippitoday.org/2026/04/15/data-center-turbines-southaven/.
[33] 'Which States Are Banning Data Centers?', National Conference of State Legislatures, accessed 26 June 2026, https://www.ncsl.org/fiscal/which-states-are-banning-data-centers.
[34] Angelique Donnellan and Xanthe Kleinig, "Proposed Data Centre in South Australia Dividing Locals Who Want the Jobs but Fear Water Demand," ABC News, June 19, 2026, https://www.abc.net.au/news/2026-06-19/proposed-data-centre-in-south-australia-dividing-locals/106810776/.
[35] Jordan Baker, "New Data Centre Is a Threat to Peace, Say Katoomba Locals," Sydney Morning Herald, June 16, 2026, https://www.smh.com.au/national/nsw/new-data-centre-is-a-threat-to-peace-say-katoomba-locals-20260616-p6076d.html. Keana Naughton, "Moss Vale Locals Oppose Plans for Gas-Powered Data Centres amid Fears They Could Drain Water Supply," ABC News, May 26, 2026, https://www.abc.net.au/news/2026-05-26/moss-vale-locals-oppose-plans-gas-powered-data-centres/106718446.
[36] Deborah Lupton and Bronwyn Bailey-Charteris, "'Just One Prompt Is Enough to Kill a Tree': Knowledge and Attitudes Concerning the Environmental Impacts of Generative AI Among Australians," Environmental Communication (2026): 1–17, https://doi.org/10.1080/17524032.2026.2673346.

infrastructures around generative AI services so that they do not harm people or the natural world. There is a clear need for better ways to inform the Australian public about the impacts of new hyperscale data centres on their access to energy and water resources and on human and environmental health, and for pathways for Australians to have a say in whether these facilities should be built in their local area.

Recommendation 5: Community consent should replace community consultation. The Commonwealth and all jurisdictions should recognise that data centres are not typical developments. Community anger towards them is growing, fuelled in part by the failure of "consultation" processes that do not allow for meaningful local agency. In producing a national framework, active "consent" from community – especially Traditional Owners – should replace weak consultation processes that do not allow communities sufficient agency to reject these developments.

E. Operational Monitoring and Reporting

A national approach is needed to address approval lock-in. Conditions agreed at the initial approval stage can quickly become outdated as facilities seek additional energy sources, altered cooling systems, or expanded capacity. Where later-stage approvals are subject to narrower review, substantial changes may proceed without equivalent scrutiny. National standards and regulatory requirements should therefore be designed to govern data centres across their operational life, ensuring that expansion, intensification, and technological change remain subject to consistent public-interest oversight.

Operational monitoring and reporting requirements, particularly in the context of data centre upgrades and the cumulative effects of clustered developments, require strong national standards in order to be sufficiently robust. Operational oversight of data centres remains fragmented in Australia because planning and development regulation is primarily organised at the state and territory level. As a result, monitoring, reporting, and review obligations are often determined through project-specific approval conditions rather than consistent sector-wide standards. This produces uneven requirements across facilities with similar impacts and limits regulatory clarity, comparability, and accountability. Public transparency is also inadequate. Even where monitoring occurs, operational data on energy use, water consumption, backup power emissions, noise, traffic, land use, and community impacts is often not readily accessible to governments, affected communities, or other stakeholders.

These weaknesses are compounded by the fact that data centres are not static facilities. They expand, intensify, and upgrade over time, yet existing arrangements do not clearly establish when such changes should trigger further scrutiny or reassessment. Project-level reporting is also poorly suited to capturing cumulative effects, particularly where facilities cluster in the same region and place growing pressure on energy systems, water resources, infrastructure, and surrounding

communities. Taken together, these gaps point to the need for a stronger national framework that establishes common reporting requirements, clear triggers for review of upgrades and expansion, and mechanisms for assessing cumulative impacts across jurisdictions.

Recommendation 6: Establish a standardised operational reporting framework for data centres.
The Commonwealth should develop, in coordination with states and territories, a nationally consistent operational reporting framework for data centres, with requirements scaled to facility size and impact. At a minimum, this framework should cover energy use, water consumption, backup power use and emissions, noise, traffic, land use, and other material operational impacts. It should also include clear triggers for further review where operational conditions materially change.

Recommendation 7: Develop a cumulative impact and upgrade assessment framework for expanding facilities and clustered developments.
The Commonwealth should work with states and territories to establish a framework for assessing cumulative impacts where data centres are clustered, rapidly expanding, or placing concentrated pressure on energy, water, infrastructure, or surrounding communities. The framework should also set clear expectations for when upgrades or expansion trigger reassessment, with operational performance over time central to that process.

Recommendation 8: Strengthen public transparency, community consent, and Indigenous authority across the operational life of data centres.
The Commonwealth should promote nationally consistent requirements for public transparency, community consultation, and Indigenous engagement across the operational life of data centres. Operational reporting should be accessible to affected communities, relevant public agencies, and Traditional Owners, and active consent should be required when facilities materially change in scale, intensity, or impact.

F. Decommissioning

Decommissioning data centres can have serious environmental and community impacts. It typically requires the removal of specialised energy and cooling infrastructure, backup generators, batteries, server hardware, cabling, and other equipment, with associated risks relating to contaminated materials, waste classification, e-waste handling, and site remediation. Unlike oil and gas installations which have federal decommissioning requirements, Australia does not have a standardised decommissioning framework

specific to data centres.[37] Instead, end-of-life responsibilities are addressed through a mix of project-specific approval conditions and general laws relating to waste, contamination, and remediation, leaving closure and rehabilitation obligations under-specified.

This creates several governance gaps. First, decommissioning obligations are often unclear, meaning that closure planning, rehabilitation responsibilities, end-of-life monitoring, and the long-term condition of sites may be left to project-by-project negotiation rather than governed through a consistent national framework. Second, responsibility for waste, remediation, and long-term site condition is fragmented across multiple regulatory regimes, making coordination more difficult and weakening accountability. Third, without clear closure obligations, the costs and environmental burdens of decommissioning may be deferred or shifted onto communities, Country, or the public sector.

A stronger national approach is therefore needed. Data centres should require advance planning for reuse, refurbishment, recycling, recovery, and site rehabilitation, and decommissioning should be treated as a core element of infrastructure governance rather than an afterthought. This is also important from the perspective of Indigenous justice and respect for Country, given that the life cycle of data-centre infrastructure is tied to critical minerals extraction and other environmental burdens borne on Indigenous lands in Australia and internationally.

Recommendation 9: Establish a standardised decommissioning framework for data centres.
The Commonwealth should develop, in coordination with states and territories, a nationally consistent decommissioning framework for data centres. At a minimum, this framework should require closure planning, identification of end-of-life risks, clear allocation of responsibility for demolition, waste, remediation, and rehabilitation, and standards for post-closure monitoring where needed.

[37]See, for example, https://www.nopsema.gov.au/blogs/new-guidance-clarifies-requirements-offshore-decommissioning-commonwealth-waters and https://www.industry.gov.au/publications/australias-offshore-resources-decommissioning-roadmap.

Recommendation 10: Require decommissioning and rehabilitation plans from the outset, backed by an appropriate bond.
The Commonwealth should promote nationally consistent requirements for data-centre proponents to prepare decommissioning and rehabilitation plans at the approval stage. These plans should address how plant, equipment, batteries, e-waste, fuel systems, and other infrastructure will be removed, managed, reused, recycled, or disposed of, and how the site will be rehabilitated after closure. Data centre developments should require appropriate financial assurance mechanisms, including bonds, to strengthen accountability for end-of-life costs and environmental burdens.

Recommendation 11: Embed public accountability, Indigenous engagement, and respect for Country in decommissioning processes.
The Commonwealth should promote nationally consistent requirements for public transparency, Indigenous engagement, and community accountability in data-centre decommissioning. Decommissioning frameworks should ensure visibility into closure obligations, waste handling, remediation, and rehabilitation, and require engagement with affected communities, relevant public agencies, and Traditional Owners where closure may affect Country.

G. Lessons from Other Jurisdictions

Data centre regulation has become a major international priority. International organizations such as UNESCO and the OECD recognise that AI has a profound environmental impact. UNESCO recommended that 'environmental and ecosystem flourishing should be recognized, protected and promoted through the life cycle of AI systems. Furthermore, environment and ecosystems are the existential necessity for humanity and other living beings to be able to enjoy the benefits of advances in AI'.[38]

International jurisdictions now provide important examples of clearer, stronger data centre public accountability measures. Although these approaches vary, they demonstrate that governments can build robust regimes for operational reporting, performance standards, expansion controls, and infrastructure accountability. The following vignettes highlight selected measures that are particularly relevant to NSW because they treat data centres as infrastructure with significant public, environmental, and social implications.

European Union. The EU has moved beyond case-by-case planning controls by establishing a common reporting framework for larger data centres. Under the recast Energy Efficiency Directive and Delegated Regulation (EU) 2024/1364, data centres

[38] The UNESCO Recommendation on the Ethics of Artificial Intelligence, adopted by 193 countries in November 2021.

above the reporting threshold must disclose standardised information on energy performance and sustainability, including water-footprint-related indicators, through a central European database.[39] The Commission describes this as a transparency measure designed to create a comparable evidence base across member states, supported by common key performance indicators and public reporting.[40] However, disclosure requirements alone do not provide the public with sufficient opportunity to have a say on questions of growth, resource use, or community impact. As AlgorithmWatch argues, even where data centres are framed as critical infrastructure and subject to greater transparency, local communities can still face high electricity and water demand, land-use change, overstated economic benefits, and limited influence over siting and expansion decisions.[41] The lesson is that reporting frameworks are useful, but insufficient unless paired with stronger planning controls, clearer public-interest tests, and mechanisms that make operators accountable for local environmental and social effects.

Key lesson: oversight can extend beyond development approval to require ongoing, standardised operational disclosure at sector level.

Germany. Germany's Energy Efficiency Act illustrates a stronger statutory approach to data centre regulation. The Act does not stop at disclosure: it establishes data-centre-specific legal requirements around energy efficiency, environmental and energy management systems, reporting obligations, the use of waste heat, and the progressive use of electricity from renewable sources, while framing the sector within Germany's broader climate-neutrality agenda. The federal government presents the Act as creating a clear legal framework for energy efficiency, including specific obligations for data centres and waste-heat utilisation. A limitation of this approach is that operational regulation alone does not settle the broader politics of expansion: as critics note, stricter efficiency rules can coexist with continuing disputes over local impacts, grid pressure, and democratic accountability.[42]

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[39] European Commission (n.d.), "Energy Performance of Data Centres,"; Commission Delegated Regulation (EU) 2024/1364; Commission Delegated Regulation (EU) 2024/1364 of 14 March 2024 Supplementing Directive (EU) 2023/1791 of the European Parliament and of the Council with Regard to a Common Union Rating Scheme for Data Centres, *Official Journal of the European Union,* May 17, 2024. This is consistent with the approach being taken to the environmental impact of general-purpose AI systems under the EU AI Act (Regulation (EU) 2024/1689), which will encourage AI developers to report transparently on the environmental impact of development and deployment of AI systems across their lifecycle including through use of data centres. A technical standard for this purpose, *Sustainable Artificial Intelligence – Guidelines and metrics for the environmental impact of artificial intelligence systems and services*, is currently being drafted.

[40] European Commission, Directorate-General for Energy, "Energy Performance of Data Centres," accessed March 27, 2026.

[41] Raluca Besliu, Aniket Narawad, and Anna Toniolo, "Infrastructure or Intrusion? Europe's Conflicted Data Center Expansion," *AlgorithmWatch*, July 25, 2025.

[42] Raluca Besliu, Aniket Narawad, and Anna Toniolo, "Infrastructure or Intrusion? Europe's Conflicted Data Center Expansion," *AlgorithmWatch*, July 25, 2025.

Key lesson: governments can move beyond transparency alone to impose ongoing operational duties backed by legislation rather than relying solely on planning approval conditions.

Singapore. Singapore's approach shows how data-centre growth can be linked to sustainability performance rather than treated as a simple question of planning approval. Under the Green Data Centre Roadmap, the government frames data centres as foundational digital infrastructure but ties their continued growth to sector-wide sustainability measures, including refreshed standards, targeted energy-efficiency programs, and certification schemes.[43] The BCA–IMDA Green Mark for Data Centres scheme is especially significant because it gives operators a recognised rating framework and creates clearer market signals by making higher-performing facilities more visible and legible to customers.[44] However, certification and performance-linked growth still depend on the strength of the underlying standards and do not, by themselves, resolve broader questions of cumulative infrastructure demand, local impact, or democratic accountability.[45]

Key lesson: accountability measures can shape the conditions under which sectoral expansion is encouraged, measured, and publicly recognised.

British Columbia, Canada. British Columbia has taken a purpose-specific approach to electricity-intensive digital infrastructure by distinguishing between data-centre uses that it considers beneficial and those it considers contrary to the public interest. In 2025, the Province announced that new BC Hydro connections for cryptocurrency mining would be banned permanently, while introducing a broader electricity-allocation framework that places limits on power available for data centres and AI and prioritises projects seen as delivering greater benefits for British Columbians.[46] The Province's rationale is explicit: emerging high-demand sectors should not be treated as automatically entitled to grid access, but should be assessed against wider economic and public-interest objectives, including jobs, revenues, affordability, and responsible energy use. However, this kind of selective approach depends heavily on how governments define "benefit," and it can leave unresolved questions about transparency, fairness, and how competing claims on electricity infrastructure are assessed in practice.

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[43] Infocomm Media Development Authority, "Green Data Centre (DC) Roadmap," Government of Singapore, last updated September 11, 2025.
[44] Infocomm Media Development Authority, "BCA-IMDA Green Mark for Data Centres Scheme," Government of Singapore, last updated November 4, 2024.
[45] Dan Swinhoe, "Singapore Lays the Groundwork for Smart Data Centre Growth," *Data Centre Dynamics*, June 25, 2024; Eco-Business, "As AI Fuels Growth of Data Centres, Critics Fight Back," *Eco-Business*, June 10, 2025.
[46] Government of British Columbia, Ministry of Energy and Climate Solutions, "New legislation powers economy with clean energy, North Coast Transmission Line," *BC Gov News*, October 20, 2025,.

Key lesson: governments can adopt purpose-specific rules that actively direct scarce energy infrastructure toward uses judged to be in the public interest, including by excluding especially energy-intensive uses considered counterproductive.

United States of America. An emerging policy strand treats data centres and AI infrastructure as matters requiring greater environmental transparency and public accountability, rather than leaving their impacts largely implicit within broader technology policy. At the federal level, the proposed *Artificial Intelligence Environmental Impacts Act of 2024* would direct the Environmental Protection Agency to study and publicly report on the energy, pollution, and disparate environmental impacts of AI models, hardware, and data centres, while also tasking NIST with developing methodologies and standards for measuring and reporting those impacts.[47] This is significant because it frames data-centre and AI expansion as an environmental-governance issue requiring common metrics, disclosure, and public oversight, a position publicly endorsed by the research institute *Data & Society*.[48] However, US critiques of current approaches also show the limits of transparency alone: as recent California analysis argues, data-centre growth can still be concentrated in already overburdened communities, where weak siting rules and inadequate cumulative-impact assessment leave major questions of health, environmental justice, and community power unresolved.[49]

Key lesson: transparency and reporting are important foundations, but they are insufficient unless paired with planning and regulatory mechanisms that address cumulative local impacts, environmental justice, and the conditions under which new capacity is approved.

Not all useful international lessons take the form of direct accountability measures. Some show how data centres can be interlinked with wider urban, energy, and heating systems, creating stronger incentives for efficiency, heat recovery, and infrastructure integration rather than assessing facilities as stand-alone developments.

Recovering Surplus Heat. Sweden, Finland, and Ireland offer useful examples of treating data centres as part of wider energy and urban infrastructure rather than as isolated industrial facilities. In Stockholm, the Stockholm Data Parks initiative was developed by the City of Stockholm, Stockholm Exergi, and industry partners to connect data-centre investment with the city's district-heating system by recovering surplus heat for local use.[50] In the Helsinki region, Fortum and Microsoft have developed a large-scale model in which waste heat from new data centres in Espoo and Kirkkonummi is transferred into the district-heating network, with Fortum stating that the project will

[47] Artificial Intelligence Environmental Impacts Act of 2024, S. 3732, 118th Cong. (2024), introduced February 1, 2024.
[48] Brian J. Chen and Tamara Kneese, "Why We're Endorsing the AI Environmental Impacts Act," *Data & Society: Points*, February 1, 2024.
[49] Cecilia Marrinan, "Data Centre Boom Risks Health of Already Vulnerable Communities," *Tech Policy Press*, June 12, 2025.
[50] Stockholm Data Parks, "Stockholmers Bask in Warmth of Nearby Data Parks," Stockholm Data Parks, January 30, 2018.

eventually cover about 40 per cent of district-heating demand in Espoo and neighbouring areas.[51] In Ireland, the Tallaght District Heating Scheme similarly reuses waste heat from a nearby data centre to supply low-carbon heat to public buildings and, more recently, apartments and commercial space.[52] However, these approaches depend on enabling infrastructure, coordination capacity, and favourable local conditions, which means they are not universally transferable and do not in themselves limit overall growth in energy demand.

Key lesson: data-centre policy can be strengthened by treating facilities as part of broader urban and energy systems, including through planning and infrastructure settings that support heat recovery and other forms of public-value integration.

Netherlands. Data centres are treated as high-energy using facilities and are therefore covered by a national legal requirement known as the Energy Saving Obligation (Energiebesparingsplicht). This obligation is set out in the Environmental Activities Decree (Besluit activiteiten leefomgeving, Bal) and the Environment Buildings Decree (Besluit bouwwerken leefomgeving, Bbl). It requires any business, including data centres, that uses 50,000 kWh of electricity or 25,000 m^3 of natural gas (or equivalent) or more per year to actively reduce its energy use by identifying, implementing, and reporting all cost-effective energy-saving measures, defined as measures that pay for themselves within five years.[53] Compliance is mandatory and must be reported to the Dutch government every four years. This shifts attention from whether a facility may be built to how it must operate over time, embedding efficiency expectations within a continuing compliance regime rather than treating sustainability as a matter resolved at the approval stage. However, because it is a general business-energy rule rather than a data-centre-specific regime, it does not by itself address the distinctive land-use, water, community, or cumulative infrastructure impacts associated with rapid data-centre expansion.

Key lesson: NSW could complement planning controls with ongoing operational obligations that require major measures after approval, as recommended in this submission.

Recommendation 12: Comprehensively examine other jurisdictions for best practice policies, frameworks, and regulations that can be adapted to Australia. International examples suggest that Australia could adopt a more robust framework by combining operational disclosure, binding performance standards, energy and water accountability, public-interest tests for expansion, cumulative-impact

[51] Fortum, "Data Centres in the Helsinki Region,"; Fortum, "Microsoft x Fortum: Energy Unites Businesses and Societies," March 26, 2024.
[52] South Dublin County Council, "Spotlight: Tallaght District Heating Scheme," *South Dublin County Council*; South Dublin County Council, "Development of the Tallaght District Heating Scheme," South Dublin County Council.
[53] Netherlands Enterprise Agency (RVO), "What Is the Energy Saving Obligation?," RVO, April 29, 2024; Netherlands Enterprise Agency (RVO), "Energy Saving Obligation," RVO, October 14, 2025.

assessment, and infrastructure integration, rather than treating data-centre sustainability as a matter largely resolved through development approval conditions.

Conclusion

The central question for Australia is not whether data centres are valuable in the abstract, but under what conditions their development can be justified in the public interest. Existing regulatory settings do not yet provide sufficiently clear thresholds, consistent operational oversight, strong community and Indigenous accountability, or adequate whole-of-lifecycle obligations for infrastructure of this scale and intensity. The examples discussed in this submission show that stronger alternatives are available. Australia should therefore halt fast tracking of data centres across all jurisdictions and develop a Commonwealth-led cross-jurisdictional framework for approvals, operational monitoring and reporting, and decommissioning. Considerations of impacts on Country, communities, and ecologies should be prioritised within those frameworks, moving from a model that prioritises consultation to one that enshrines community consent as central to approvals. A strong public accountability framework ensures that data centre developments prioritise the public interest of Australia, now and into the future.