



Environmental
Defenders Office

**Submission to the Senate Environment and
Communications References Committee inquiry into
artificial intelligence and data centres**

1 September 2026

About EDO

EDO is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 40 years' experience in environmental law, EDO has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

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Senate Standing Committees
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Acknowledgement of Country

The EDO recognises and pays respect to the First Nations peoples of the lands, seas and rivers of Australia. We pay our respects to the First Nations Elders past and present and aspire to learn from traditional knowledges and customs that exist from and within First Laws so that together, we can protect our environment and First Nations Cultural Heritage through both First and Western laws. We recognise that First Nations Countries were never ceded and express our remorse for the injustices and inequities that have been and continue to be endured by the First Nations of Australia and the Torres Strait Islands since the beginning of colonisation.

EDO recognises the right to self-determination of First Nations peoples, including their right to freely determine their own political status and freely pursue their economic, social and cultural development. This extends to recognising the many different First Nations within Australia and the Torres Strait Islands, as well as the multitude of languages, cultures, protocols and First Laws.

First Laws are the laws that existed prior to colonisation and continue to exist today within all First Nations. It refers to the learning and transmission of customs, traditions, kinship and heritage. First Laws are a way of living and interacting with Country that balances human needs and environmental needs to ensure the environment and ecosystems that nurture, support, and sustain human life are also nurtured, supported, and sustained. Country is sacred and spiritual, with culture, First Laws, spirituality, social obligations and kinship all stemming from relationships to and with the land.

A note on language

We acknowledge there is a legacy of writing about First Nations peoples without seeking guidance about terminology. We also acknowledge that where possible, specificity is more respectful. For the purpose of this submission, we have chosen to use the term First Nations. We acknowledge that not all First Nations peoples will identify with that term and that they may instead identify using other terms or with their immediate community or language group.

First Laws is a term used to describe the laws that exist within First Nations. It is not intended to diminish the importance or status of the customs, traditions, kinship and heritage of First Nations in Australia. The EDO respects all First Laws and values their inherent and immeasurable worth. EDO recognises there are many different terms used throughout First Nations for what is understood in the Western world as First Laws.

The role of EDO & First Nations Peoples

EDO is a non-Indigenous community legal centre specialising in public interest environmental law. EDO has been operating for 40 years. This submission is based on our expertise in planning and environmental Western law and experience in working on behalf of First Nations clients, including in relation to Cultural Heritage through Western law.

Out of respect for First Nations self-determination, EDO's recommendations for Western law reform in relation to First Nations matters are high-level, to support First Nations to protect their Countries and Cultural Heritage as they see fit. In making this submission, EDO cannot and does not speak on behalf of First Nations peoples or groups.

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Executive Summary

1. Environmental Defenders Office (**EDO**) welcomes the opportunity to comment on the inquiry into artificial intelligence and data centres. We have recently prepared EDO principles on data centre developments in Australia (**enclosed**). We encourage the Committee to consider these principles in addition to this submission.
2. Increasing demand for, and use of, artificial intelligence (**AI**) has led to an influx of investment in data centres globally and Australia is rapidly emerging as a data centre hotspot.¹ In 2024, Australia was second only to the United States of America for highest capital investment globally.²
3. Rapid development of data centres will have extensive implications for Australia's environment, particularly due to substantial energy and water needs. The Australian Energy Market Operator (**AEMO**) forecasts data centre energy consumption will increase to nearly 35 TWh by 2035-36, which is almost seven times more than the energy usage that is forecast for 2029-2030.³ Furthermore, it is estimated that water demand from data centres could increase from 5.5 GL in 2025 to 17 GL by 2030 across Australia.⁴
4. We are deeply concerned by the Federal Government's focus on positioning Australia as a global leader in data centre investment, without undertaking adequate research as to the potential impacts and ensuring a national regulatory framework is in place.
5. Due to the significant and unknown impacts of this form of development in Australia, we consider proper regulation of data centre developments in Australia cannot and should not be rushed.
6. EDO urges the Committee to ensure effective engagement with the public in undertaking this Inquiry and developing the regulatory framework. This must include effective and meaningful engagement with First Nations peoples and their representative organisations through targeted consultation and participation, including opportunities for the Committee to take evidence in communities if requested.
7. EDO recognises that the regulation of AI and data centres is complex and multifaceted; however, as a national community legal centre specialising in public interest and environmental law, our submission only considers matters within our area of expertise.
8. We anticipate a further consultation opportunity in relation to the proposed national regulatory framework and will provide further recommendations at that time.

¹ Department of Industry, Science and Resources, *National AI Plan* (2 December 2025) 6. Available here: <https://www.industry.gov.au/publications/national-ai-plan>. (**National AI Plan**).

² Baringa and Clean Energy Finance Commission, *Getting the balance right: data centre growth and the energy transition* (December 2025) 4 (available here: <https://www.cefc.com.au/media/hs5ner3s/getting-the-balance-right-data-centres-and-the-energy-transition-full-report.pdf>) (**Baringa CEFC Report**).

³ Australian Energy Markets Operator, 'Data Centre Energy Demand: 2026 Forecast Update' (Report, June 2026) (available at: <https://www.oxfordeconomics.com/wp-content/uploads/2026/08/OEA-AEMO-Data-Centre-Report.pdf>).

⁴ Mandala, 'Data Centres as Enabling Infrastructure' (Report, November 2025) 9 (available at: <https://mandalapartners.com/uploads/Data-Centres-as-Enabling-Infrastructure.pdf>).

Summary of Recommendations

Regulating data centres and AI infrastructure in Australia

1. A national regulatory framework for data centres and AI infrastructure must be legislated, to be informed by complete, accurate and publicly available research regarding the potential impacts of data centres and AI infrastructure.
2. The Federal Government must impose a moratorium on development of data centres and AI infrastructure in Australia until the national regulatory framework is legislated to ensure compliance with Australia's commitments under international law.
3. Robust consultation must be undertaken on the national regulatory framework for AI and data centre developments in Australia.
4. The national regulatory framework must incorporate accountability and transparency through decision-making to ensure it is in the public interest, including particularly:
 - the right to information, by imposing comprehensive reporting obligations on proponents, including in relation to energy and water usage and sourcing, land impacts, pollution and potential community impacts,
 - the right to meaningful participation, by enshrining community consultation rights, and
 - access to justice, by providing for review rights and third party enforcement.

Recommendations for a national regulatory framework

5. The regulatory framework must mandate that all data centre proposals must be fully powered by their own additional renewable energy sources.
6. The National Water Agreement should be updated to incorporate principles regulating water usage by data centres and AI infrastructure.
7. The national regulatory framework must require national pre-planning and strategic environmental assessments, aligning with the Renewable Energy Zones, to ensure appropriate siting, including identifying unacceptable areas, with offsets only to be used as a last resort and in accordance with the mitigation hierarchy.
8. The national regulatory framework must require data centre design to incorporate whole-of-life considerations and requirements to avoid impacts and include air, thermal, sensory and chemical pollution standards and mitigation measures.
9. A significant impact guideline for data centres and AI infrastructure should be developed to guide referrals under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**).
10. The water trigger in the EPBC Act should be expanded to include any action that is likely to have a significant impact on a water resource, involve significant extraction from a water resource, or has the potential to significantly contaminate a water resource.
11. The *Water Act 2007* (Cth) should be expanded, as part of the review underway, to ensure the Murray-Darling Basin, along with other important water resources across Australia, are protected from impacts relating to data centres.

First Nations engagement and participation

12. The Committee should ensure and facilitate effective First Nations engagement in the Inquiry, based on principles of self-determination and Free, Prior and Informed Consent (**FPIC**).

13. The Committee should recommend that:
- First Nations are effectively and meaningfully engaged in all decisions and processes regarding data centre developments, including in the development of policy and law, and
 - data centre developments are informed by that First Nations participation, and First Nations knowledges, as rightsholders and custodians of Country, and
 - any mandatory AI standards in relation to data centres are co-designed with First Nations and impose obligations on both governments and companies to uphold the United Nations Declaration on the Rights of Indigenous Peoples (**UNDRIP**) and FPIC in the design and delivery of data centre developments.
14. Decisions regarding data centre developments, including the regulatory framework that applies and assessment processes for individual projects, must reflect the inherent rights of First Nations peoples captured in UNDRIP, where FPIC is a mandatory requirement.
15. Through participation of First Nations, ensure that data centre projects are appropriately located, designed, operated and ultimately decommissioned, to ensure development avoids adverse impacts on First Nations Country and Cultural Heritage, as determined by First Nations, and First Nations access to their land, water and resources.
16. Decision-making about, and monitoring and evaluation of, data centres must be based on the best available science, including First Nations knowledges, while retaining First Nations control of this knowledge and expertise, including by instituting strong legal protections for Indigenous Cultural and Intellectual Property.
- Human rights considerations
17. Legislate a national Charter of Human Rights, including the right to a healthy environment, which should underpin a new regulatory framework.
18. A national regulatory framework must require proponents of data centres and AI developments to undertake human rights due diligence.

Introduction

9. On 2 December 2025, the Federal Department of Industry, Science and Resources (**DISR**) published the National AI Plan, outlining the Federal Government's '*plan to grow the AI industry in Australia*'.⁵
10. Following the publication of the National AI Plan, the Federal Government outlined its 'Expectations of data centres and AI infrastructure developers' (**National Expectations**).⁶ These National Expectations are not legally binding and do not impose any obligations on state or territory governments, instead providing a national "policy approach" to AI. However, the Prime Minister recently announced an intention to legislate a set of Australian Standards for AI (**AI Standards**) to regulate large AI infrastructure,⁷ building on the National Expectations.

⁵ National AI Plan, 7.

⁶ Department of Industry, Science and Resources, *Expectations of data centres and AI infrastructure developers* (23 March 2026) (available here: <https://www.industry.gov.au/publications/expectations-data-centres-and-ai-infrastructure-developers>) (**National Expectations**).

⁷ Prime Minister of Australia 'AI in Australia's interests' (Media Release, 15 July 2026) (available at: <https://www.pm.gov.au/media/ai-australias-interests>) (**AI Standards Media Release**)

11. On 13 May 2026, the Australian Senate referred an inquiry into AI and data centres to the Environment and Communications References Committee (**Inquiry**).
12. Our submission to the Inquiry is in three parts.

Part 1 details the potential environmental impacts and risks associated with the development of AI and data centres in Australia, such as:

- the risk of undermining Australia’s renewable energy transition,
- potential risks to water resources,
- extensive land usage, including for ancillary infrastructure, and
- social and ecological health impacts.

Part 2 outlines our recommendations for appropriate regulation of data centres and AI infrastructure in Australia, addressing the need for:

- legislation of a national regulatory framework for data centres, to be informed by complete, accurate and publicly available research about the potential impacts,
- a moratorium on data centre developments until the regulatory framework has been legislated,
- robust consultation to be undertaken on the regulatory framework,
- the framework to ensure transparent and accountable decision-making, and
- the national regulatory framework to promote jurisdictional consistency with respect to energy, water and environmental assessment and to interact with other federal regulatory frameworks.

Part 3 highlights the likely effects of rapid data centre developments on First Nations, and the risk to human rights generally, including but not limited to those impacts identified in Part 1, and includes recommendations to inform the regulatory framework where appropriate.

Part 1 – Environmental impacts of data centres and AI infrastructure

Risk of undermining Australia’s renewable energy transition

13. In their 2035 Targets Advice, the Climate Change Authority expressed concern that the rapid growth of AI and data centres is ‘*driving significant increases in electricity demand, which in turn is contributing to higher emissions than anticipated, making a more ambitious [climate emissions] target harder to meet.*’⁸
14. We are in a critical decade with respect to climate change. The United Nations (**UN**) Intergovernmental Panel on Climate Change has stated that global greenhouse gas (**GHG**) emissions must peak in 2025 at the latest and be reduced by 43% by 2030 in order to limit

⁸ Climate Change Authority, *2035 Targets Advice* (12 September 2025) 15 (available here: <https://www.climatechangeauthority.gov.au/sites/default/files/documents/2025-09/2035%20Targets%20Advice%20Report.pdf>) (**CCA 2035 Targets Advice**).

warming to 1.5°C in accordance with the Paris Agreement.⁹ Australia is a party to the Paris Agreement, ratifying it on 9 November 2016.¹⁰

15. On 23 July 2025, the International Court of Justice (**ICJ**) issued an Advisory Opinion¹¹ outlining the obligations of UN member States to address climate change and confirming that 1.5°C is the scientifically based consensus target under the Paris Agreement.¹² The ICJ Advisory Opinion made it clear that more stringent measures are expected from member States with a '*well-developed economy*', such as Australia, to meet the standard of due diligence required to discharge their duty to prevent significant climate harm under international law.¹³
16. In the most recent Nationally Determined Contributions (**NDC**) report, Australia set a target of 62-70% reduction in net national greenhouse gas emissions below 2005 levels by 2035.¹⁴ This is despite the Climate Change Authority previously indicating that at least a 67% reduction by 2030 was required to align with the 1.5°C warming scenario.¹⁵ Ultimately, increased AI use and data centre development was a key factor contributing to the Climate Change Authority recommending a weakened target range of 62-70%.¹⁶
17. Australian data centres are predicted to utilise more than 10%¹⁷ and up to 13%¹⁸ of Australia's energy by 2035 – while using only 1% in 2024.¹⁹ While the National Expectations provide that data centres and AI infrastructure should '*make a positive contribution to Australia's energy transition*'²⁰, it is difficult to see how this expectation is being, or can be, implemented in practice unless data centres are made to provide their own renewable energy and be prohibited from using fossil fuels.
18. Unfortunately, there are already significant data centre proposals incorporating gas-fired power plants, for example, alongside data centres to supply the necessary energy required to power the data centres.

⁹ IPCC AR6 Synthesis Report: Climate Change 2023 (Summary for Policymakers) 20-21 (available here: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf).

¹⁰ United Nations, *Paris Agreement* (12 December 2015) (available here: https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=en).

¹¹ Available here: <https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf> (**ICJ Advisory Opinion**).

¹² ICJ Advisory Opinion, [224].

¹³ ICJ Advisory Opinion, [290]-[292].

¹⁴ Commonwealth of Australia, *Australia's 2035 National Determined Contribution* (2025) 3 (available here: <https://unfccc.int/sites/default/files/2025-09/Australias%20Second%20NDC.pdf>).

¹⁵ Climate Change Authority, *2024 Issues Paper: Targets, Pathways and Progress* (April 2024) 12 (available here: <https://storage.googleapis.com/files-au-climate/cca/p/prj2d3336e5a90d264a70605/page/Issues%20paper%20-%20Targets,%20Pathways%20and%20Progress.pdf>).

¹⁶ CCA 2035 Targets Advice, 36.

¹⁷ CCA 2035 Targets Advice, 47.

¹⁸ Australian Energy Market Operator, 'Forecasting growing data centre energy demand' (Explainer, 2026) (available at: https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/nem_esoo/2026/2026-esoo-data-centre-forecasting-overview.pdf?).

¹⁹ Baringa CEFC Report, 2.

²⁰ Department of Industry, Science and Resources, *Expectations of data centres and AI infrastructure developers* (23 March 2026) (available here: <https://www.industry.gov.au/publications/expectations-data-centres-and-ai-infrastructure-developers>).

Case Study 1: “Project Ares” – Australia’s largest gas-fired power plant

Project Ares is a 1GW hyperscale AI data centre proposed by Energy North Pty Ltd to be developed in the Barkly region of the Northern Territory.²¹ Project Ares proposes to use a combination of solar and natural gas to power the Tier III data centre 24 hours a day 7 days a week and includes the construction of a 7,000 ha solar generation site and a 1,038 MW gas-fired power station. For context, the Darwin-Katherine energy grid generates 494.4 MW of power across five power stations and the energy generated from the proposed gas-fired power station alone could produce the same amount of energy used by over 2 million homes.²²

Energy North have confirmed that renewable energy alone cannot support the energy requirements of Project Ares and natural gas is required to provide firm power.²³ Energy North have been unclear on how much of the energy needed to power the data centre will be generated from natural gas and how much will be solar, however it is clear that natural gas will be the primary energy source while the solar and battery infrastructure is constructed.²⁴ While no agreement has been publicised, Energy North Pty Ltd have indicated that Project Ares will be powered by fracked gas from the Beetaloo Sub-basin.²⁵

Depending on the efficiency of the power plant, it is estimated that Project Ares may release up to between 2.81 Mt – 4.22 MtCO₂e of scope 1 GHG emissions if using 100% gas.²⁶ This estimation does not take into account the indirect greenhouse gas emissions resulting from the gas production process.

19. Additionally, not all data centre energy needs are equal. Some data centres, such as Tier III data centres, require power 24/7,²⁷ which creates additional concerns in relation to the renewable energy transition due to the prevalent use of diesel generators to provide back-up energy supply in addition to, or in place of, battery storage systems.

Intensive water demands must be mitigated against

20. The majority of data centres use a lot of water for cooling, create wastewater, and require energy and treatment for wastewater or recycled water use, all of which have local and sometimes regional impacts.²⁸ The UN recently reported that the 2025 energy needs of data centres globally had a water footprint of 4.5 trillion litres.²⁹

²¹ See: <https://energy-north.com/projects/project-ares/>.

²² See EDO [Submission guide on the referral for the Project Ares hyperscale data centre](#).

²³ Energy North Pty Ltd, ‘Project Ares: Referral under the *Environment Protection Act 2019 (NT)*’ (June 2026), p. 24.

²⁴ See: <https://energy-north.com/project-ares-your-questions-answered/>

²⁵ See: [Energy North - Project Ares: Your Questions Answered](#)

²⁶ See EDO [Submission guide on the referral for the Project Ares hyperscale data centre](#). This submission includes information about the various factors influencing efficiency and contributing to the scope 1 emissions released.

²⁷ See: <https://uptimeinstitute.com/tiers>.

²⁸ Navid B Saleh, ‘Why Water Demand Is No Longer Enough: Rethinking Sustainability in AI Data Centres’ (2026) 60(26) *Environmental Science & Technology* (available at: <https://pubs.acs.org/esthag/article/60/26/18383/5169293/Why-Water-Demand-Is-No-Longer-Enough-Rethinking>).

²⁹ United Nations University, ‘The environmental cost of AI’ (Report, 3 June 2026) 10 (available at: https://collections.unu.edu/eserv/UNU:10647/UNU-INWEH-Report-The_Env_Cost_of_AI-2026.pdf).

21. Australia is the driest inhabited continent on the planet, with 70% being arid or semi-arid.³⁰ Environmental water is critical to maintaining ecosystems and protecting environmental values. The intensive water demands of data centres and AI infrastructure poses a concerning risk to Australia's water resources, particularly given climate change is predicted to cause significant changes in rainfall patterns and amount across Australia.³¹
22. Increasing data centre developments in Australia will lead to increased demand for water, with data centres often using equivalent water volumes as 70,000-80,000 households.³² The National Expectations provide that data centres should have sustainable and efficient water usage; however, it's not clear what obligations this may impose on proponents of data centre developments once the national regulatory framework is implemented.
23. In addition to the water demands of data centres, there are concerns about water impacts caused by contamination, either through the release of wastewater or contaminants from the data centre directly, or through impacts caused by ancillary energy or infrastructure projects.
24. Furthermore, there are implications for water security, particularly where the data centre relies on municipal drinking water. Implications for First Nations water security is considered further in Part 3.

Case Study 2: Fracking gas for data centres – Beetaloo Digital's proposed data centre

Beetaloo Digital, a wholly owned subsidiary of Beetaloo Energy, have entered into a not-to-deal arrangement with the Northern Territory (NT) Government in relation to a proposed integrated power and data centre development 30km from Darwin.³³ The development will consist of a hyperscale data centre and two gas-fired power stations generating 2 GW of on-site gas fired power using fracked gas from Beetaloo Energy's operations in the Beetaloo Sub-basin.

Beetaloo Digital have not indicated how much water will be required at their proposed facility or where the water will be sourced from. Concerningly, the Beetaloo Digital development is located within the area of the recently expired Berry Springs Water Allocation Plan (WAP) 2016-2026. Under the now expired WAP, water licenses had been fully allocated and no water was available for further development.³⁴ Accordingly, in 2016 the NT Government instituted a freeze on the construction of new bores for extraction from the aquifer until impacts on the natural spring flows, water quality and the ecosystem had been managed.³⁵

³⁰ Department of Climate Change, Energy, the Environment and Water, 'Outback Australia – the rangelands (Blog, 3 October 2021) (available at: <https://www.dccceew.gov.au/agriculture-land/land/rangelands>).

³¹ Hongxing Cheng et al., 'Projections of future streamflow for Australia informed by CMIP6 and previous generations or global climate models' (2024 636 *Journal of Hydrology* []) (available at: <https://www.sciencedirect.com/science/article/pii/S0022169424006814>).

³² Water Services Association of Australia 'Data centres and water in Australia' (Report, December 2025) 3 (available at: <https://wsaa.asn.au/Common/Uploaded%20files/library/report/WSAA%20Data%20Centres%20and%20water%20in%20Australia%20-%20December%202025.pdf>).

³³ See Beetaloo Energy ASX Announcement: [Beetaloo Energy launches Beetaloo Digital](#)

³⁴ Department of Land Resource Management, '[Berry Springs Water Allocation Plan 2016-2026](#).'

³⁵ Department of Land Resource Management, '[Berry Springs Water Allocation Plan 2016-2026](#)' p 5.

Although the NT Government advised the WAP will not be renewed, their policy position has remained the same – “there is no water available for new water licences or increases to existing water licences.”³⁶ Noting this is a policy position only, there is significant concern from the community who rely on bore water as to where the water required to operate the Beetaloo Digital data centre will be sourced.³⁷

Beetaloo Digital’s reliance on fracked gas also exacerbates existing risks of groundwater and surface water from fracking operations including contamination at the fracking sites caused by surface spills and faulty well designs.³⁸

Extensive land footprint required can have significant impacts if unregulated

25. Data centre developments often require large sites and ancillary infrastructure, particularly if not located near metropolitan areas.³⁹ This land usage has the potential to impact critical, or important, habitat for native species and ecological communities, including threatened species.
26. In addition to the land usage for the data centre itself, there are additional impacts caused by data centre developments. This includes ancillary infrastructure; however, it also includes additional resources required to develop the data centres and the additional renewable, or other, energy developments required to power the data centres. For example, the demand for energy to power data centres is likely to contribute to increased demand for the critical minerals required to construct the associated infrastructure.⁴⁰
27. For example, Project Ares, discussed in case study 1, is anticipated to have a preliminary disturbance of nearly 20,000ha, which would include an airstrip and internal road network, but excludes additional ancillary infrastructure, such as the gas-fired power plant, workshops and waste management facilities.⁴¹

Case Study 3: Bunday data centre – Clearing 100ha of MNES relevant land

IREN’s Bunday data centre is an 800MW data centre proposed to be developed in Bunday, South Australia. It will be more than twice the size of any other data centre in Australia and is anticipated to open in stages from 2028.⁴²

³⁶ See Department of Lands Planning and Environment, ‘Berry Springs Water Allocation Plan,’ (31 July 2026) available at: <https://environment.nt.gov.au/news/2026/berry-springs-wap>

³⁷ See ‘I’m scared for me and my kids’: NT residents call for moratorium on data centres - ABC News

³⁸ The Hon Justice Rachel Pepper, ‘Scientific Inquiry into hydraulic fracturing in the Northern Territory’ (27 March 2018) pp 144-156.

³⁹ Planning Institute Australia, ‘Planning for Data Centres’ (Guidance Note, 1 June 2026) 3 (available at: <https://www.planning.org.au/Common/Uploaded%20files/Smart%20Suite/Smart%20Library/c5618db6-579d-40be-866a-7c0057e87abf/Planning%20for%20Data%20Centres%20Guidance%20Note%20v6.pdf>).

⁴⁰ See: <https://www.edo.org.au/publication/submission-guide-on-the-referral-of-the-project-ares-hyperscale-data-centre/>.

⁴¹ See <https://ntepa.nt.gov.au/consultation/project-ares/>.

⁴² See: <https://www.afr.com/companies/financial-services/iren-plans-10-billion-south-australian-ai-data-centre-20260603-p603o9>.

The project will contain three data halls, administration buildings, a bulk substation and three primary substations, access roads and carparking, water infrastructure and onsite wastewater treatment.⁴³

The EPBC referral⁴⁴ indicates the project area is 610ha with a disturbance footprint of 270ha, including approximately 100ha of permanently disturbed area, being area that will be cleared. This area includes listed nationally listed threatened species,⁴⁵ such as the South-eastern Hooded Robin, Regent Parrot and the Mallee Bird Community of the Murray Darling Depression Bioregion.

Social and ecological health

28. In addition to energy, water and land usage, data centres and AI infrastructure have other impacts affecting human and ecological health, including the following impacts explored further below:

- air pollution, particularly in relation to diesel generators,
- sensory pollution,
- thermal pollution and heat islands, and
- use of perfluoroalkyl and polyfluoroalkyl substances (**PFAS**) in coolant systems.

Air pollution

29. Data centres can have a significant effect on air quality, largely due to reliance on diesel generators to provide a back-up power supply. Diesel generators have a very negative effect on the atmosphere, affecting air quality (locally) and climate (regionally and globally).

30. The Federal Department of Climate Change, Energy, the Environment and Water commissioned a cost-benefit analysis of non-road diesel engines, such as diesel generators,⁴⁶ ostensibly to inform a national approach to emissions in accordance with objectives of the National Clean Air Agreement.⁴⁷ In this report, it was noted that emissions from non-road diesel engines, including associated health impacts, are likely to remain a concern absent any government management action.⁴⁸ Since commissioning this report, the Federal Government has not yet taken any further action to regulate non-road diesel engine emissions.⁴⁹

31. In 2018 alone, emissions from non-road diesel engines are attributed as having human health implications relating to premature mortality that is equivalent to 5,387 years of life

⁴³ See [project description](#).

⁴⁴ See [2026/10605](#). Notably the proponent indicated they did not consider this project to be a controlled action.

⁴⁵ See [referral application](#).

⁴⁶ Paul Boulter et al, 'Non-road diesel engines – cost-benefit analysis' (Final Report, 2022) (available at: <https://www.dcceew.gov.au/sites/default/files/documents/nrde-cost-benefit-analysis-final%20report.pdf>) (**Non-road Diesel Emissions Report**).

⁴⁷ See: <https://www.dcceew.gov.au/sites/default/files/documents/national-clean-air-agreement.pdf>.

⁴⁸ Non-Road Diesel Emissions Report, 2.

⁴⁹ As reported in: Centre for Safe Air, 'Artificial intelligence and data centres inquiry' (Submission, 10 July 2026) 2 (available at: <https://safeair.org.au/data-centres-inquiry/>) (**CSA Submission**).

lost across the Australian population.⁵⁰ Importantly, as outlined by the Centre for Safe Air, this report pre-dates the rapid uptake in development of data centres.⁵¹

32. Without intervention, this issue, including the associated health impacts, is only going to be exacerbated by the prevalent use of back-up diesel generators to support data centres.

Sensory pollution

33. Sensory pollutants, such as acoustic noise and night lighting can fundamentally impact ecological processes by altering how animals process information in their environment, through mechanisms. These can include:⁵²
- masking, which decreases an animal's ability to distinguish between a pollutant and a natural environmental stimulus. For example, light pollution can mask lunar cues,
 - distracting, which occurs when a sensory pollutant interferes with information processing by occupying part of animal's finite attentional capacity, and
 - misleading, which is when a pollutant acts as a natural cue. For example, noise pollution can mask or mislead prey or mating cues.
34. Different species are impacted and respond to different sensory pollutants in different ways. It is therefore important to conduct species specific assessments for the different sensory pollutants caused by projects to ensure that the amount of light and the amount of noise generated by the projects do not exceed thresholds that may results in fitness consequences for threatened species. This is especially important for projects that are not location within metropolitan areas.
35. Furthermore, sensory pollution can have human health risks, with cardiovascular and mental health implications associated with noise.⁵³

Thermal pollution and the heat island effect

36. Data centres have been identified to produce significant waste heat, caused by continuous operation, leading to thermal pollution.⁵⁴ There is emerging research suggesting that large scale data centres can create "heat islands", actively warming the area around them.⁵⁵
37. In addition to waste heat, wastewater produced through cooling systems may also be hotter than the receiving environment. Many species have a narrow thermal range and thermal pollution can constitute a significant cause of ecological harm.⁵⁶

⁵⁰ Non-Road Diesel Emissions Report, 72.

⁵¹ CSA Submission.

⁵² Davide M Dominoni et al 'Why conservation biology can benefit from sensory ecology' (2020) 4(4) *Nature Ecology & Evolution* (available at: <https://pubmed.ncbi.nlm.nih.gov/32203474/>).

⁵³ World Health Organisation, 'How much does environmental noise affect our health? (News Release, 4 August 2024) (available at: <https://www.who.int/europe/news/item/04-08-2024-how-much-does-environmental-noise-affect-our-health-who-updates-methods-to-assess-health-risks>).

⁵⁴ Xiaolei Yuan et al, 'Waste heat recoveries in data centres: A review' (2023) 188 *Renewable and Sustainable Energy Reviews* (available at: <https://www.sciencedirect.com/science/article/pii/S1364032123006342>).

⁵⁵ Andrea Marinoni et al, 'The data heat island effect: quantifying the impact of AI data centres in a warming world' 2026 *ResearchGate* (available at: doi.org/10.48550/arXiv.2603.20897).

⁵⁶ Francesca Veronesi et al, 'Characterisation Factors for Thermal Pollution in Freshwater Aquatic Environments' (2010) 44(24) *Environmental Science & Technology* (available at: <https://pubs.acs.org/esthag/article-abstract/44/24/9364/803340/Characterization-Factors-for-Thermal-Pollution-in?redirectedFrom=fulltext>).

38. Given extreme heat already causes more deaths in Australia than any other natural hazard,⁵⁷ it is concerning that data centres continue to be developed in areas already experiencing elevated heat impacts, without necessary mitigation measures.

Case Study 4: Increasing heat implications for Western Sydney

AdaptNSW has reported that Western Sydney is ‘typically 6-10°C hotter than the rest of the city during extreme heat events.’⁵⁸ This is only expected to worsen due to climate change and is, in part, caused by the “heat island” effect of urbanisation.⁵⁹

The Urban Heat Planning Toolkit identifies ways to create cool cities, recommending local provisions that support low carbon cities, robust energy systems, sustainable water supplies and cool buildings.⁶⁰ These recommendations seem at odds with known data centre impacts.

However, despite these concerns, a reported 91 data centres are located in Greater Sydney,⁶¹ with new hyperscale data centres being proposed in Western Sydney, such as the Mamre Road Data Centre Campus.⁶²

PFAS contaminants

39. PFAS, commonly referred to as “forever chemicals” as they do not break down in the natural environment, are often used by data centres for cooling.⁶³ There are concerns that PFAS contamination of ground or surface water from data centre developments could lead to significant environmental harms and human health implications.⁶⁴
40. The Federal Department of Climate Change, Energy, the Environment and Water has identified that, in accordance with the precautionary principle in relation to persistent organic pollutants, PFAS warrants global action due to the ‘*persistence, bioaccumulation, potential for long-range transport and adverse effects on human health and / or the environment.*’⁶⁵ We are concerned that the use of PFAS by data centre developments may lead to contamination of water resources and could cause significant environmental and human health harms.

⁵⁷ See: <https://www.acs.gov.au/pages/hazards-heatwaves/>

⁵⁸ AdaptNSW, ‘Building adaptive capacity to heat in Western Sydney’ (Article, 2026) (available at: <https://www.climatechange.environment.nsw.gov.au/stories-and-case-studies/building-adaptive-capacity-heat-western-sydney>).

⁵⁹ The Australia Institute, ‘Heat Watch: Extreme heat in Western Sydney’ (Report, November 2018) 38 (available at: <https://www.westernsydney.edu.au/ics/research/research-centres/shared-media/western-sydney-heatwatch-web.pdf>).

⁶⁰ Western Sydney Regional Organisation of Councils, ‘Urban Heat Planning Toolkit’ (Report, 2021) ix (available at: <https://wsroc.com.au/media-a-resources/reports/send/3-reports/306-wsroc-urban-heat-planning-toolkit>).

⁶¹ Sweltering Cities, ‘Submission to NSW Parliamentary Inquiry into Data Centres (Submission, 2026) (available at: <https://swelteringcities.org/wp-content/uploads/2026/04/Sweltering-Cities-NSW-data-centre-inquiry-submission.pdf>).

⁶² See: <https://www.planningportal.nsw.gov.au/major-projects/projects/mamre-road-data-centre-campus>.

⁶³ Environmental and Energy Study Institute, ‘Data centres are contributing to PFAS forever chemical pollution’ (Article, 9 April 2026) (available at: <https://www.eesi.org/articles/view/data-centers-are-contributing-to-pfas-forever-chemical-pollution>).

⁶⁴ EDO has published a resource on the potential health implication caused by exposure to PFAS here: <https://www.edo.org.au/wp-content/uploads/2024/11/PFAS-chemicals-and-the-regulation-of-drinking-water.pdf>.

⁶⁵ See: <https://www.dcceew.gov.au/environment/protection/chemicals-management/pfas#the-stockholm-convention-on-persistent-organic-pollutants-pops>.

Part 2 – Recommendations for a national regulatory approach

Legislate a national regulatory framework, to be informed by adequate research

41. On 15 July 2026, the Prime Minister announced that a set of AI Standards, building on the National Expectations, will be legislated.⁶⁶ It is not yet clear what these AI Standards will address, although the Prime Minister has indicated the AI Standards will provide a regulatory framework for data centres, including a legal obligation to underwrite their own power supply and a requirement to be as ‘*water efficient as possible*’.⁶⁷
42. The UN Independent International Scientific Panel on Artificial Intelligence highlighted the risks of delaying governance decisions relating to AI, finding that fragmented governance instruments developed by policymakers rarely contain effective evaluation methods and the capacity of independent risk assessments is underdeveloped.⁶⁸
43. Noting the significance of the impacts highlighted in Part 1 of this submission, it is essential that a robust regulatory framework is implemented to ensure development is sustainable and impacts on the environment, First Nations and communities more generally are avoided.
44. However, it is essential this regulatory framework is informed by complete and accurate information about the potential impacts of data centres and AI infrastructure. This was brought to the attention of the Federal Government in 2024 by the Senate Select Committee on Adopting Artificial Intelligence, which commented:⁶⁹

complete and accurate information about the full range of AI’s environmental impacts is critical for the purposes of energy system and water resource planning and management, as well as to ensuring that AI’s impacts are effectively regulated under Australia’s intersecting federal, state and territory legislative regimes for environmental protection, resource management and land use and planning.
45. It is not clear to us that the Federal Government has taken steps to ensure that complete and accurate information has been obtained, despite welcoming increased investment in AI infrastructure in Australia.
46. Comprehensive research into the potential environmental impacts of AI and data centres must be undertaken to inform the national regulatory framework and ensure regulation is adequate. Complete and accurate information about the full range of AI’s environmental impacts is critical for the purposes of energy system and water resource planning and management. This research should be made publicly available to foster transparency and facilitate informed public consultation on the proposed framework.

⁶⁶ Prime Minister of Australia ‘AI in Australia’s interests’ (Media Release, 15 July 2026) (available at: <https://www.pm.gov.au/media/ai-australias-interests>) (**AI Standards Media Release**).

⁶⁷ Prime Minister of Australia ‘AI in Australia’s interests’ (Media Release, 15 July 2026) (available at: <https://www.pm.gov.au/media/ai-australias-interests>) (**AI Standards Media Release**).

⁶⁸ United Nations AI Risks Report, 9.

⁶⁹ Senate Select Committee on Adopting Artificial Intelligence, Parliament of Australia (Final Report, November 2024) ch 6 1.100 (available at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Adopting_Artificial_Intelligence_AI/AdoptingAI/Report).

Recommendation 1: A national regulatory framework for data centres and AI infrastructure must be legislated, to be informed by complete, accurate and publicly available research regarding the potential impacts of data centres and AI infrastructure.

Moratorium on data centre development until regulatory framework is legislated

47. Senator Ghosh recently stated that ‘*data centres will have to go through rigorous environmental and planning approvals, like other infrastructure, and our expectations around that are that the projects will meet the standards and needs of Australians and must be in our national interest.*’⁷⁰ However, the justification for this statement is unclear to us.
48. States and territories are generally responsible for regulating environmental impacts of data centres within their respective jurisdiction. Unless the project is referred for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**), the Federal Government has no regulatory oversight in relation to environmental impacts of data centres and AI infrastructure developments.
49. Given the recent announcements relating to the proposed renewable energy requirements for data centre developments, there is a real concern that AI infrastructure proponents will endeavour to implement their projects prior to the commencement of the national regulatory framework, to take advantage of the lack of federal regulation and jurisdictional fast-tracking.⁷¹
50. We further consider that it is essential that data centres are not exempt from regulation, or subject to any approval streamlining or exemptions, for example under the EPBC Act while the impacts of data centres are not fully understood and until robust regulatory frameworks have been developed.
51. While we support the Federal Government’s proposed approach of developing a mandatory national set of standards to regulate AI and data centres in Australia, we are concerned that the current lack of federal governance may lead to increased risks of adverse impacts on the environment, First Nations and communities more generally.
52. The National Expectations are not binding and currently the Federal Government cannot ensure the rigorousness of assessment processes. This is particularly important given several states have indicated an intention to fast-track data centre developments.⁷²
53. The Prime Minister’s announcement in relation to the AI Standards has not been accompanied by any proposed moratorium on AI growth or data centre infrastructure in Australia until the AI Standards are operational. Nor has the Federal Government tempered their promotion of Australia as an ‘*attractive AI investment destination*’ with a requirement for improved regulations to be put in place prior to development.⁷³

⁷⁰ Commonwealth, *Parliamentary Debates*, Senate, 30 June 2026, 63.

⁷¹ See e.g.: <https://www.theguardian.com/australia-news/2026/aug/26/australia-may-face-a-rush-of-datacentre-construction-as-ai-firms-look-to-dodge-upcoming-rules-experts-say>.

⁷² Commonwealth, *Parliamentary Debates*, Senate, 27 May 2026, 34-35 (David Shoebridge, Senator).

⁷³ National AI Plan, Action 3.

54. The Federal Government has broad powers to make laws in relation to matters that are encompassed within the legislative powers of Parliament, such as the corporations power relating to foreign and domestic corporations within the limits of the Commonwealth⁷⁴ or the external affairs power, for matters relating to obligations under international law.⁷⁵
55. In its 1999 report, the Senate Environment, Communications, Information Technology, and the Arts Committees considered the Federal Government's environment powers under the Australian Constitution. The Committee found that the Constitutional heads of power '*confers on the Commonwealth extensive legislative competence with respect to environmental matters*'⁷⁶ recommending that '*the Commonwealth should not hesitate to creatively employ the wide powers it possesses in order to protect and conserve the environment and should vigorously defend its power when challenged.*'⁷⁷
56. Given Australia's obligations under the Paris Agreement and the extensive energy demands of data centres, which was identified as a key factor in the weakened NDC target by the Climate Change Authority as outlined in Part 1, we consider that the Federal Government is within its Constitutional power to legislate a temporary prohibition on data centre developments until the mandatory regulatory framework is legislated to ensure Australia can meet its commitments under international law.
57. This could be given effect through, for example, amending the EPBC Act to list data centres as a matter of national environmental significance and including a sunset clause prohibiting the approval of data centre projects until the framework is legislated.

Recommendation 2: The Federal Government must impose a moratorium on development of data centres and AI infrastructure developments in Australia until the national regulatory framework is legislated to ensure compliance with Australia's commitments under international law.

Robust consultation on the new regulatory framework

58. Data centres and AI are a matter of significant public concern. Given the extensive known impacts and the potential for further issues to reveal themselves as developments progress and research on data centres improves, it is essential people are given an opportunity to have their say about a national regulatory framework in accordance with best practice principles. This includes, for example, early, ongoing and meaningful community engagement.

⁷⁴ Australian Constitution s 51(xx).

⁷⁵ Australian Constitution s 51(xxix).

⁷⁶ Senate Environment, Communications, Information Technology and the Arts Committees, Parliament of Australia (Final Report, May 1999) 2.19 (available at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Completed_inquiries/1999-02/enviropowers/report/c02) (**Commonwealth Environmental Powers Report**).

⁷⁷ Commonwealth Environmental Powers Report, rec 1.

59. EDO would welcome the opportunity to participate in any stakeholder engagement on the proposed regulatory framework, particularly given our expertise in relation to planning and environment law and human rights.
60. Further, we consider it essential that the Federal Government meaningfully engages with First Nations peoples and their representative organisations to inform the regulatory framework. We provide further information about the importance of engagement with First Nations in Part 3 of this submission.

Recommendation 3: Robust consultation must be undertaken on the national regulatory framework for AI and data centre developments in Australia.

Transparent and accountable decision-making

61. Transparency and accountability are essential to foster trust, and to establish and maintain social licence.
62. Principle 10 of the Rio Declaration outlines three fundamental community rights in relation to environmental decision-making, comprising the rights to:⁷⁸
 - (1) have appropriate access to information held by public authorities,
 - (2) genuinely participate in decision-making processes, and
 - (3) have access to review or challenge decisions.
63. However, a report prepared by the Wilderness Society, in conjunction with EDO, shows that no government has comprehensively preserved community rights in environmental decision-making in legislation.⁷⁹ The report recommended a national approach to community rights in environmental decision-making, with the three rights outlined above to be enshrined in federal legislation, such as the EPBC Act. It is imperative the national regulatory framework for AI and data centres incorporates these rights, to ensure better outcomes for communities and the environment.
64. The Federal Government has indicated that meeting the National Expectations will be the foundation for establishing social licence in Australia for data centre and AI infrastructure developments.⁸⁰ There has not been any substantive commentary around proposed reporting obligations to support access to community information relating to matters of public interest.
65. It is critical that the proposed legislation imposes clear annual public reporting obligations on data centre and AI infrastructure developer, for example in relation to:
 - energy usage, including the source (for example renewable or fossil fuel sources) and any energy supplied back to the grid,

⁷⁸ See: [https://docs.un.org/en/A/CONF.151/26/Rev.1\(vol.I\)](https://docs.un.org/en/A/CONF.151/26/Rev.1(vol.I)).

⁷⁹ Wilderness Society, 'Who holds the power: Community rights in environmental decision-making' (Report, 2022) 20 (available at: <https://wilderness.org.au/news-events/australians-dont-have-a-meaningful-say-on-the-environment-report-reveals>).

⁸⁰ National Expectations.

- water usage, including the source of the water (such as wastewater, drinking water, or water extracted from water resources) and water expenditure (including wastewater produced) for the life of the project,
 - land clearing associated with the project, including ancillary infrastructure or energy generation projects,
 - air pollutants, particularly those associated with diesel generators,
 - thermal pollution and sensory pollution associated with the project,
 - any use of PFAS, including management actions to prevent contamination,
 - financial information, including amounts paid for water and energy sources where derived from external sources, and
 - community and social impacts and benefits, such as cost-sharing for public infrastructure.
66. The National AI Plan states that an AI Safety Institute will be established to ‘*support existing regulators*’ in relation to enforcing compliance but will not have enforcement powers itself.⁸¹ It’s not clear whether the proposed AI Standards will alter this approach.
67. In our view, it is imperative that the appropriate regulatory bodies are clearly identified, and appropriately powered in any new regulatory framework, to ensure effective enforcement of compliance. Third-party enforcement powers should be available where the regulator has neglected to take any enforcement action.

Recommendation 4: The national regulatory framework must incorporate accountability and transparency through decision-making to ensure it is in the public interest, including particularly:

- the right to information, by imposing comprehensive reporting obligations on proponents, including in relation to energy and water usage and sourcing, land impacts, pollution and potential community impacts,
- the right to meaningful participation, by enshrining community consultation rights, and
- access to justice, by providing for review rights and third party enforcement.

Regulatory framework should promote jurisdictional consistency

68. The Federal Government’s promotion of Australia as a leading location for data centre investment globally has seemingly led to jurisdictional competition. Several states have outlined their aspirations of being the leader for data centre development in Australia, including New South Wales (**NSW**), Victoria and Western Australia.
69. In 2022, Western Australia published their Data Centre Prospectus, declaring the State ‘*open for business*’.⁸² In 2026, Victoria published their Sustainable Data Centre Action Plan, intended to ‘*strengthen Victoria’s position as a global investment destination for data*

⁸¹ National AI Plan, 28.

⁸² Department of Energy and Economic Diversification (WA), *Data Centre Prospectus* (Report, 7 November 2022) 3 (available here: https://www.wa.gov.au/system/files/2022-12/221202_DataCentre%20Prospectus_V4.pdf).

centres’.⁸³ We note concern about “fast-tracking” data centres through State planning legislation, such as in NSW and Victoria, has been raised in the Senate.⁸⁴

70. As state and territories governments typically hold more requirements and responsibility for assessing development applications, including for data centres, this potential push to be the national data centre hotspot raises concerns that assessment processes may be watered down or fast-tracked without adequate consideration of the potential impacts to attract increased investment.
71. There are also significant questions as to how these proposed AI Standards will interact, if at all, with other federal regulatory frameworks, including the EPBC Act, *Water Act 2007* (Cth) (**Water Act**), and the *National Greenhouse and Energy Reporting Act 2007* (Cth) (**NGER Act**) and Safeguard Mechanism.
72. We have considered opportunities for the Federal Government to promote consistency across jurisdictions in relation to the level of assessment for, and expectations of, data centre developments across Australia. This includes matters relating to energy, water regulation, environmental impacts and interaction with other federal regulatory frameworks such as the EPBC Act and the Water Act.

Energy regulation – renewables requirement

73. As outlined in Part 1, data centres have immense energy requirements. It is imperative the rapid uptake of AI and data centres in Australia does not undermine the renewable energy transition, particularly as global temperatures continue to rise and the risks of crossing one or more climate-system tipping points increase, potentially triggering self-reinforcing changes that become irreversible on human timescales.
74. On 5 August 2026, the Minister for Climate Change and Energy stated that data centres will be required to obtain Renewable Electricity Guarantee of Origin certificates to ‘*prove they are fully offsetting their power use with renewable energy that may not have otherwise been built*’, noting that ‘*all the powers available to the Commonwealth*’ will be used ‘*even if some states have different ideas*’.⁸⁵
75. However, following pushback from the Queensland and Northern Territory governments about this proposed renewable energy requirement, the Prime Minister appeared to walk back this proposed requirement, instead proposing a more “flexible” approach for these jurisdictions.⁸⁶
76. This change in position is deeply concerning, particularly in the context of data centre developments such as Project Ares (Case Study 1). It is clear permitting data centres to use

⁸³ Department of Jobs, Skills, Industry and Regions (Vic), *Sustainable Data Centre Action Plan* (available here: <https://djsir.vic.gov.au/priorities-and-initiatives/ai-mission-statement/sustainable-data-centre-action-plan>).

⁸⁴ Commonwealth, *Parliamentary Debates*, Senate, 27 May 2026, 34-35 (David Shoebridge, Senator).

⁸⁵ The Hon. Chris Bowen, ‘National Press Club Address’ (Speech, National Press Club, 5 August 2026) (available at: <https://minister.dccsew.gov.au/bowen/speeches/speech-national-press-club-canberra>).

⁸⁶ The Hon. Anthony Albanese, ‘National Cabinet Press Conference’ (Press Conference, 26 August 2026) (available at: <https://www.pm.gov.au/media/press-conference-sydney-39>).

energy sourced from fossil fuels will undermine the renewable energy transition and is incompatible with Australia's commitments under the Paris Agreement.

77. We note further commentary from the Minister for Climate Change and Energy on this point indicated the regulatory framework '*will require 100% renewables backed by firming, which can be gas*' indicating exceptions will only be granted for use of state-owned energy sources if the energy supply is demonstrably cheaper than renewable sources.⁸⁷
78. It is essential the Federal Government settles its position and legislates strong requirements for use of new, proponent provided, renewable energy sources, to prevent undermining the renewable energy transition.
79. The Safeguard Mechanism under the NGER Act is intended to reduce direct GHG emissions from certain industrial facilities, in accordance with Australia's GHG emissions reductions targets legislated in the *Climate Change Act 2022* (Cth). The Safeguard Mechanism works by providing emitters that exceed their baseline emissions with an opportunity to rely on Australian carbon credit units to offset their excess emissions.⁸⁸ Importantly, the Safeguard Mechanism is only applicable to facilities producing more than 100,000tCO₂-e of scope 1 emissions per year.⁸⁹
80. EDO has previously expressed concern about the inadequacy of the Safeguard Mechanism more generally, including that:⁹⁰
- the threshold of 100,000tCO₂-e of scope 1 emissions per year is too high and therefore fails to capture significant emitters,
 - emissions are only regulated after the polluting project is approved and are otherwise unconnected to the federal assessment process, and
 - scope 2 and 3 emissions, which are commonly the largest contributors to climate pollution, are absent from the Safeguard Mechanism.
81. Scope 1 emissions are emissions that are directly released as a result of the activity.⁹¹ However, the majority of emissions associated with data centres are scope 2 emissions, which are indirect emissions, comprising the emissions relating to electricity required by the data centre to power the servers.⁹²
82. Consequently, the Safeguard Mechanism cannot be considered an appropriate tool for managing or reducing GHG emissions relating to data centres and AI infrastructure. The

⁸⁷ See: <https://reneweconomy.com.au/breaking-no-carve-outs-for-states-over-renewables-mandate-for-data-centres-bowen-says/>. See also: <https://www.abc.net.au/news/2026-08-28/bowen-says-no-carve-outs-for-states-on-data-centre-power/107089824>.

⁸⁸ Clean Energy Regulation, 'Safeguard Mechanism' (Article, 6 August 2026) (available here: <https://cer.gov.au/schemes/safeguard-mechanism>).

⁸⁹ *National Greenhouse Emissions Reporting Act 2007* (Cth) see defs "safeguard emissions" and "covered emissions".

⁹⁰ See: <https://www.edo.org.au/wp-content/uploads/2025/01/EDO-briefing-note-Safeguard-Mechanism-and-environmental-approvals-January-2025.pdf>; and <https://www.edo.org.au/wp-content/uploads/2022/09/220920-EDO-Safeguard-Mechanism-Submission.pdf>.

⁹¹ Clean Energy Regulator 'Emissions and energy types' (Article, 28 February 2025) (available at: <https://cer.gov.au/schemes/national-greenhouse-and-energy-reporting-scheme/about-emissions-and-energy-data/emissions-and-energy-types>).

⁹² Clean Energy Council, 'The GHG Protocol: make or break for green data centres?' (Article, 26 February 2026) (available at: <https://energycouncil.com.au/the-ghg-protocol-make-or-break-for-green-data-centres/>).

only regulatory approach that would prevent undermining the renewable energy transition and would support Australia to meet its commitments under the Paris Agreement is requiring that data centre energy demands be supplied by 100% additional renewable energy.

83. This could be implemented in legislation by, for example, including a provision, similar to s 140A of the EPBC Act, elsewhere in the Act that precludes the Minister from approving data centre projects that involve any new, or expanded, coal, gas or oil projects to provide primary or back-up energy supply.
84. We note the National Expectations provide that new data centres and AI infrastructure should ‘*make a positive contribution to Australia’s energy transition.*’ Requiring 100% additional renewable energy is the bare minimum needed so as to not undermine the renewable energy transition; however, it cannot be said to be making a “positive contribution” or furthering the transition.
85. Even in circumstances where the primary power supply is renewable energy, often data centre developments rely on diesel generators to provide back-up supply or otherwise will draw energy from the grid. The 100% renewable energy requirement should include back-up power generation, imposing obligations on data centre proponents to investigate alternatives to fossil-fuel powered back-up generators and establishing energy efficiency requirements.
86. Further, to make a positive contribution, in line with the National Expectations, data centre proposal should, where appropriate, supply power to the grid to support additional energy needs of Australians and reduce reliance on fossil fuels.
87. We note the increased demand for renewable energy, in order to provide 100% of data centre needs without taking from the national grid, will require new or expanded renewable energy developments and supporting infrastructure. It is imperative that renewable energy developments adhere to the principles of ecologically sustainable development, are designed to avoid and minimise impacts and water usage and have fully funded full-life recycling, rehabilitation and restoration.⁹³

Recommendation 5: The national regulatory framework must mandate that all data centre proposals must be fully powered by their own additional renewable energy sources.

Water regulation – National Water Reform

88. Water regulation differs vastly across jurisdictions. The Prime Minister has stated that the proposed AI Standards will include a rule that data centres must ‘*be as water efficient as possible.*’⁹⁴ However, the Federal Government has not elaborated further as to how water usage will be federally regulated, if at all, to ensure this is implemented.

⁹³ We refer to EDO’s [12 principles for renewable energy transition projects](#).

⁹⁴ AI Standards Media Release.

89. The National Water Initiative (**NWI**) is the key intergovernmental agreement outlining the national framework for managing water resources and principles for regulatory approvals relating to water.⁹⁵
90. In 2024, following a review of the NWI, the Federal Government determined that a new agreement, the National Water Agreement (**NWA**), was necessary to better address current and future water management challenges. Currently, no state or territory governments have signed the NWA, so the NWI continues to apply.
91. In its review, the Australian Government Productivity Commission expressed concerns about the currency of the NWI, identifying less reliable supply and increased and changing demands for water as contemporary challenges.⁹⁶
92. The Australian Water Association has highlighted that government fragmentation creates a barrier to implementing environmental objectives in relation to water management, advocating for long term funding models that ‘*allocate resources for the ongoing accountability of the environment and social values of water.*’⁹⁷
93. The current reviews of the *Water Act 2007* (Cth), of the Murray-Darling Basin Plan and the Productivity Commission’s National Water Reform 2026 provide ideal opportunities for the Federal Government to consider how states and territories have been progressing the principles outlined in the NWI and consider whether the NWA properly considers and addresses the risks and challenges to water management posed by data centres and AI infrastructure.
94. Given the extensive water demands, including wastewater production, of most existing data centres and AI infrastructure, the NWA should provide clear planning requirements for jurisdictions to ensure data centres do not place further pressure on ecosystems with limited water. The national regulatory framework should require jurisdictions to identify areas where data centres are not suitable to be located due to risks to ecosystems, water security, or water quality.

Recommendation 6: The National Water Agreement should be updated to incorporate principles regulating water usage by data centres and AI infrastructure.

Environmental regulation

95. As outlined above, some subnational jurisdictions are opting to fast-track assessments for data centres. Further, due to the rapidly evolving technology and uncertainty regarding impacts, environment and planning regulatory frameworks, including the EPBC Act, are not equipped to properly assess the potential impacts of data centre projects.
96. The national regulatory framework must require national pre-planning and strategic environmental assessments to ensure appropriate siting of data centres, including

⁹⁵ *Intergovernmental Agreement on a National Water Initiative*, signed on 25 June 2004.

⁹⁶ Australian Government Productivity Commission, *National Water Reform 2024* (Inquiry report, 28 May 2024) 4-6 (available at: <https://assets.pc.gov.au/2025-10/Water%20reform%20report.pdf>).

⁹⁷ Australian Water Association, ‘National Water Reform 2026 Inquiry Interim Update 2’ (Submission, 24 July 2026) 11 (available at: https://www.awa.asn.au/hubfs/FINAL_NWR2026%20Interim%20Update%20%202.pdf).

identifying unacceptable areas and/or impacts, to avoid or mitigate impacts and support sustainable development.

97. This pre-planning should align with the Renewable Energy Zones,⁹⁸ to ensure the siting is appropriate for both the data centre and also for the ancillary renewable energy infrastructure required to power the data centre. This approach would provide for improved biodiversity outcomes and increase industry certainty in relation to data centre proposals.
98. This pre-planning should also include ancillary infrastructure and the need for increased renewable energy projects and associated critical minerals mining, which can have significant environmental impacts and must be considered cumulatively.
99. EDO has previously expressed concerns that biodiversity offsetting is not effective in delivering environmental outcomes.⁹⁹ We consider it imperative that biodiversity offsets are only relied upon as a last resort to minimise residual, unavoidable impacts of data centre projects and only after first genuinely applying the mitigation hierarchy to avoid, mitigate or abate impacts.
100. As outlined in Part 1, AI infrastructure and data centres pose serious risks to human and ecological health, including from pollution and contamination. It is essential data centre design considers lifecycle impacts and that the regulatory framework requires avoidance of impacts and includes air, thermal, sensory and chemical pollution mitigation standards and measures.

Recommendation 7: The national regulatory framework must require national pre-planning and strategic environmental assessments, aligning with the Renewable Energy Zones, to ensure appropriate siting, including identifying unacceptable areas, with offsets only to be used as a last resort and in accordance with the mitigation hierarchy.

Recommendation 8: The national regulatory framework must require data centre design to incorporate whole-of-life considerations and requirements to avoid impacts and include air, thermal, sensory and chemical pollution standards and mitigation measures.

Interaction with other federal regulatory frameworks

101. It is unclear how data centre developments may fall within the remit of the EPBC Act, despite their potential for significant and irreversible impacts to the environment and climate.
102. The EPBC Act has long failed to adequately consider and manage cumulative impacts and emerging threats.¹⁰⁰ Despite a shift towards landscape-scale planning, the recent reforms have not resolved these issues. We are concerned that the impacts of data centres and

⁹⁸ See: <https://www.aer.gov.au/about/strategic-initiatives/renewable-energy-zones>.

⁹⁹ Environmental Defenders Office, 'Defending the Unburnt: Offsetting our way to extinction' (Report, November 2022) 4 (available at: <https://www.edo.org.au/wp-content/uploads/2022/12/EDO-Offsetting-our-way-to-extinction.pdf>).

¹⁰⁰ Graeme Samuel, *Independent Review of the EPBC Act* (Final Report, October 2020) 39.

associated infrastructure on matters of national environmental significance will not be properly considered under the EPBC Act.

103. Clarity on significant and unacceptable impacts for data centres could be improved by developing a significant impact guideline or policy document considering issues specific to data centres to guide referrals for data centre projects.
104. This significant impact guideline for data centres should take a holistic, whole-of-life approach to considering direct and indirect environmental impacts. This includes all ancillary infrastructure, energy projects to supply power, and the need for increased critical minerals projects to facilitate these developments. Proposals for data centres should include consideration of the entire lifecycle of a data centre and a requirement to avoid and/or mitigate impacts at all stages.
105. Further, despite the potential for extensive impacts of data centres on water resources outlined in Part 1, the “water trigger” under the EPBC Act would fail to capture large scale projects due to its narrow scope, applying only to impacts on water resources caused by or in relation to large coal mines or unconventional gas developments.
106. The water trigger must be expanded to capture any actions, including but not limited to data centres, that will, or are likely to:
 - significantly impact water resources,
 - involve significant extraction from water resources, or
 - have the potential to cause contamination of, or detriment to, water resources.
107. The Murray-Darling Basin is the largest system of waterways in Australia, supporting 16 Ramsar wetlands and crossing five jurisdictions.¹⁰¹ There are concerns about data centres using water from the Murray-Darling Basin waterways, such as the Bunday data centre proposal discussed in case study 3.¹⁰² The Murray Darling Basin is already over allocated.¹⁰³
108. The Water Act is the national framework managing the Murray-Darling Basin and is currently under review. Among other things, the review considers matters such as water security, water quality, availability of water information and the NWA.¹⁰⁴ As outlined in Part 1, impacts to water security and quality are particularly relevant to data centres given their extensive water demands and wastewater production.
109. This review provides a further opportunity to consider legislative protections to ensure the Murray-Darling Basin, as a nationally important water resource already experiencing catastrophic ecosystem decline due to over-extraction, is managed in Australia’s interest.

¹⁰¹ Department of Climate Change, Energy, the Environment and Water, ‘Murray-Darling Basin’ (Article, 6 March 2026) (available at: <https://www.dcceew.gov.au/water/policy/mdb>).

¹⁰² See: <https://www.abc.net.au/news/2026-06-18/iren-data-centre-ai-budey-local-concerns-water-river-murray/106802586>.

¹⁰³ [EDO Submission](#) to the Murray Darling Basin Authority in response to the Murray Darling Basin Plan Review Discussion Paper, (1 May 2026).

¹⁰⁴ Department of Climate Change, Energy, the Environment and Water, ‘Independent review of the Water Act 2007’ (Discussion Paper, July 2026) (available at: <https://www.dcceew.gov.au/sites/default/files/documents/water-act-review-discussion-paper-july-2026.pdf>) (**Water Act Review Discussion Paper**).

110. Furthermore, other watersheds in Australia need protection before they are over-allocated as the Murray-Darling Basin has been.

Recommendation 9: A significant impact guideline for data centres and AI infrastructure should be developed to guide referrals under the EPBC Act.

Recommendation 10: The water trigger in the EPBC Act should be expanded to include any action that is likely to have a significant impact on a water resource, involve significant extraction from a water resource, or has the potential to significantly contaminate a water resource.

Recommendation 11: The *Water Act 2007* (Cth) should be expanded to ensure the Murray-Darling Basin, along with other important water resources across Australia, are protected from impacts relating to data centres.

Part 3 – Impacts on First Nations rights and interests, and the importance of legislated human rights protections

First Nations rights and interests

111. Data centres are likely to have significant impacts on First Nations, their Country and Cultural Heritage and their connection to Country, including through impacts on the energy transition, water, biodiversity and Cultural Heritage.¹⁰⁵ The impact on First Nations and communities is likely to be disproportionate, with many large data centres being proposed in remote areas, with more First Nations residents.¹⁰⁶ For example, the Northern Territory is emerging as a potential data centre hub, with 12 investors reportedly expressing interest in the area.¹⁰⁷ First Nations peoples comprise approximately one-third of the Northern Territory's population,¹⁰⁸ and around 70% of this First Nations population live in remote areas.¹⁰⁹
112. These impacts threaten the inherent rights of First Nations as reflected in the *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*,¹¹⁰ which has been endorsed by Australia,¹¹¹ as well as the *International Covenant on Civil and Political Rights*

¹⁰⁵ See for example: [Cultural concerns over planned data centre near Man... | National Indigenous Times](#).

¹⁰⁶ [Why the world's biggest AI companies want data centres in the NT - ABC News](#)

¹⁰⁷ [Why the world's biggest AI companies want data centres in the NT - ABC News](#)

¹⁰⁸ In the Northern Territory 61,000 people identified as Aboriginal and/or Torres Strait Islander in the 2021 Census of Population and Housing. Australian Bureau of Statistics, 'Northern Territory: Aboriginal and Torres Strait Islander population summary' (1 July 2022) (available at: <https://www.abs.gov.au/articles/northern-territory-aboriginal-and-torres-strait-islander-population-summary>).

¹⁰⁹ NT Health, 'Aboriginal and Torres Strait Islander health', (Webpage, undated) (available at: <https://health.nt.gov.au/professionals/aboriginal-and-torres-strait-islander-health>).

¹¹⁰ See for example the right to self-determination (Art 3); the requirement for Free, Prior and Informed Consent (Arts 10, 19, 32); the right to participate in decision-making (Art 18); and rights to lands, territories and resources (Arts 25–26).

¹¹¹ *United Nations Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UN GAOR, 61st sess, 107th plen mtg, Agenda Item 68, Supp No 49 (2 October 2007, adopted 13 September 2007) (UNDRIP). Regarding the importance of this endorsement for Australia's domestic jurisdiction, see *Sampi v State of Western Australia (No 5)* [2026] FCA 517, [45]–[48]. Mortimer CJ refers to these rights as “solemn objectives that Australia has committed to” in *Sampi v State of Western Australia (No) 5* [2026] FCA 517, [45]–[48].

(**ICCPR**), the *International Covenant on Economic, Social and Cultural Rights* (**ICESCR**), and the *International Convention on the Elimination of All Forms of Racial Discrimination* (**ICERD**). In making decisions about data centres, governments and companies must act consistently with these obligations. This includes obligations on government to protect against human rights abuses from corporate actors.

113. UNDRIP mandates that States engage in genuine consultation and cooperation with First Nations peoples and their representative organisations to secure their Free, Prior, and Informed Consent (**FPIC**) before taking action that affects their lands, territories, resources and rights. FPIC reflects the inherent collective right of First Nations to participate in decision-making processes on issues and laws that affect their lives, lands, waters, skies and resources, and to grant or withhold consent where decisions affect them. FPIC requires:
- a. First Nations being resourced to effectively engage in the design, delivery and benefits of projects, policies, and decision-making processes relating to data centre infrastructure, as they see fit.
 - b. Any proposed data centre project involving effective engagement and participation of First Nations peoples and their representative organisations that is early, iterative, and culturally appropriate.
 - c. Regulatory frameworks for data centre developments, approvals and decommissioning being co-designed with affected First Nations communities and their representative organisations.

Effective and meaningful engagement of First Nations in data centre regulation and development

114. First Nations' rights, knowledges and culture should be central to environmental and planning decisions, with self-determination and FPIC entrenched in legislation. First Nations involvement in decision making about data centre developments should be reflective of First Nations as rightsholders and decision makers with authority over Country who continue to maintain deep connection to, and are custodians of, their Countries.¹¹²
115. First Nations self-determination, participation and governance should be centred in data centre regulation, design and implementation, including through:
- appropriate remuneration for First Nations involvement in data centre regulation and development,
 - integration of First Nations knowledges into project design to strengthen protection of Country and Cultural Heritage, including in relation to design of any offset projects, while retaining First Nations control of this knowledge and expertise, including by instituting strong legal protections for Indigenous Cultural and Intellectual Property,

¹¹² Dr Anne Poelina notes that "Aboriginal custodians are considered stakeholders rather than decision-makers". See Anne Poelina '[Martuwarra Fitzroy River Catchment– sustainable lifeways and livelihoods](#)' (2026) *Australasian Journal of Water Resources*, 9.

- proactive plans for rehabilitation and restoration of Country that anticipates future technology redundancies and ensures First Nations are not left with the burden of contamination or similar upon decommissioning,
 - First Nations involvement in careful planning for all developments, including in areas where data centres may disproportionately impact communities with higher populations of First Nations peoples (and offer relatively few employment opportunities to local communities), and
 - compensation for any adverse impact of data centre related infrastructure on affected First Nations.
116. This recommendation is not new. In 2020, Professor Graeme Samuel AC recommended in the independent review of the EPBC Act the co-design of policy and implementation to improve outcomes for First Nations, and strengthening the protection of the rights, knowledge and interests of First Nations under the EPBC Act.¹¹³
117. FPIC requires meaningful participation and genuine consideration of First Nations views, requiring these views to substantially influence, rather than merely inform, project decisions. First Nations are uniquely placed to input into effective and sustainable regulatory and project design. The pace of developments poses significant risks to this meaningful engagement and participation and as discussed above, is unjustified.

Recommendation 12: The Committee should ensure and facilitate effective First Nations engagement in the Inquiry, based on principles of self-determination and FPIC.

Recommendation 13: The Committee must recommend that:

- First Nations are effectively and meaningfully engaged in all decisions and processes regarding data centre developments, including in the development of policy and law, and
- data centre developments are informed by that First Nations participation, and First Nations knowledges, as rightsholders and custodians of Country, and
- any mandatory AI Standards in relation to data centres are co-designed with First Nations, and impose obligations on both governments and companies to uphold UNDRIP and FPIC in the design and delivery of data centre developments.

A just transition for First Nations

118. The AI-driven technology transition must benefit First Nations and not repeat the extractive legacies of the past. This relies on robust frameworks for transparency, benefit sharing and protection of Country, Cultural Heritage and resources.¹¹⁴ Critically, First Nations should be involved in the co-design of mechanisms for benefit sharing to ensure they reflect First Nations priorities, knowledge and interests.¹¹⁵ Data centre developments and the fulfillment of FPIC should be informed by the principles and standards in both:

¹¹³ Professor Graeme Samuel, Independent Review of the EPBC Act – Final Report, 2020, p.ii, <https://www.dcceew.gov.au/sites/default/files/documents/epbc-act-review-final-report-october-2020.pdf>

¹¹⁴ See [Climate-Council-submission-Senate-inquiry-into-AI-and-data-centres-report.pdf](#).

¹¹⁵ See for more Jenna Imad Harb and Shanine Ryan, “[The fight over AI data centres is becoming Australia's next Indigenous policy challenge](#)”, *The Conversation* (28 August 2026).

- the First Nations Clean Energy Network’s Aboriginal and Torres Strait Islander Best Practice Principles for Clean Energy Projects,¹¹⁶ and
 - Yamatji Marlpa Aboriginal Corporation’s *Best Practice Standards* in relation to proposed developments on Country.¹¹⁷
119. Barriers to First Nations participation should be addressed, including lack of funding and resources for First Nations representative organisations to be able to fully participate as rightsholders in planning, design, implementation and regulation as they choose. A just transition requires FPIC in all decision points regarding data centre developments, including First Nations peoples and communities being equipped with:
- access to information that is unfiltered, interpreted into First Nations ways of understanding and framing;
 - an understanding of their rights (inherent and recognised in Western law) and how infringements of, or impacts on, those rights can be managed; and
 - authority, autonomy and adequately resourced governance structures to respond and negotiate with proponents.

Data centre developments threaten climate justice

120. First Nations are disproportionately impacted by climate change. Climate change is intensifying colonial injustices and disrupting cultural and spiritual connections to Country that are central to health and well-being and disrupted by environmental degradation.¹¹⁸ Australia’s National Climate Risk Assessment further identifies that climate change poses risks to, and undermines the rights of, First Nations.¹¹⁹ For more information and case studies, see EDO’s recent submission to the Special Rapporteur on the Rights of Indigenous Peoples.¹²⁰
121. If data centres’ consumption of energy slows Australia’s energy transition away from fossil fuels, this will accelerate the environmental crisis and increase climate pollution already causing disproportionate impacts on First Nations. Specifically, slower emissions reductions contribute to greater cumulative emissions and, consequently, to the increasing severity of climate change and its adverse effects. These adverse effects disproportionately

¹¹⁶ First Nations Clean Energy Network, [Aboriginal and Torres Strait Islander Best Practice Principles for Clean Energy Projects](https://assets.nationbuilder.com/fncen/pages/183/attachments/original/1680570396/FNCEN_-_Best_Practice_Principles_for_Clean_Energy_Projects.pdf?1680570396), November 2022 (available at https://assets.nationbuilder.com/fncen/pages/183/attachments/original/1680570396/FNCEN_-_Best_Practice_Principles_for_Clean_Energy_Projects.pdf?1680570396); see also L O’Neill, B Riley, J Hunt and G Maynard, [Clean Energy Agreement Making on First Nations Land: What Do Strong Agreements Contain?](https://d3n8a8pro7vnm.cloudfront.net/originalpower/pages/96/attachments/original/1637114200/Clean_Energy_Company_Guide.pdf?1637114200), 2021, Centre for Aboriginal Economic Policy Research, Australian National University, available at https://d3n8a8pro7vnm.cloudfront.net/originalpower/pages/96/attachments/original/1637114200/Clean_Energy_Company_Guide.pdf?1637114200; DCCEEW (Cth), [First Nations Clean Energy Strategy](https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/community-engagement-working-group/first-nations-engagement-sub-working-group/first-nations-clean-energy-strategy), 6 December 2024, available at <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/community-engagement-working-group/first-nations-engagement-sub-working-group/first-nations-clean-energy-strategy>.

¹¹⁷ Yamatji Marlpa Aboriginal Corporation, *YMAC Best Practice Standards*, (unknown date), available at <https://www.ymac.org.au/standards/>.

¹¹⁸ Healthy Environments and Lives (HEAL) Network & Centre for Research Excellence in Strengthening Systems for Indigenous Health Care Equity (CRE-STRIDE), [‘Climate change and Aboriginal and Torres Strait Islander health: Discussion paper’](#) (Report, November 2021).

¹¹⁹ Australian Climate Service, [‘National Climate Risk Assessment’](#) (Report, 2025).

¹²⁰ [EDO’s Submission to the UN Special Rapporteur on the Rights of Indigenous Peoples](#) (April 2026), pages 32-37.

impact First Nations peoples by virtue of geography, culture, pre-existing health sensitivities, socioeconomic factors and political environments.¹²¹

122. The ICJ in its 2025 Advisory Opinion emphasised that Indigenous peoples may be more severely affected by the impacts of climate change, and that their enjoyment of human rights is at risk from the adverse effects of climate change.¹²² The ICJ further opined that ‘States have obligations under international human rights law to respect and ensure the effective enjoyment of human rights by taking necessary measures to protect the climate system and other parts of the environment’.¹²³ These obligations, and Australia’s responsibility under international law for climate inaction that impacts on vulnerable communities was already evident through the Torres Strait 8’s complaint to the UN Human Rights Committee in 2022.¹²⁴ Data centre and associated energy developments that delay the energy transition and perpetuate climate change are at odds with Australia’s obligations to protect the climate system and the rights of First Nations peoples.
123. Data centre developments are also likely to have flow-on impacts to First Nations energy security. AI’s significant use of energy when many First Nations communities are energy insecure is unjust, especially without regulation to ensure that AI’s use of energy does not impact on the energy use of, and cost for energy for, households.

Data centre developments threaten First Nations water rights, access and security

124. The use of water by AI¹²⁵ threatens Australia’s river systems, which are of deep cultural significance for First Nations. First Nations communities already face water insecurity and lack clean drinking water, including due to climate change. Without proper regulation, information and oversight, data centres’ use of water may compete with First Nations’ access to clean drinking water.
125. Country is already being impacted by rising water scarcity that is affecting First Nations Cultural Heritage, and culturally significant biodiversity and waterways. Although many water use regulations around Australia provide for some recognition of the need to

¹²¹ Standen, J.C.; Spencer, J.; Lee, G.W.; Van Buskirk, J.; Matthews, V.; Hanigan, I.; Boylan, S.; Jegasothy, E.; Breth-Petersen, M.; Morgan, G.G. Aboriginal Population and Climate Change in Australia: Implications for Health and Adaptation Planning. *Int. J. Environ. Res. Public Health* 2022, 19, 7502. [Aboriginal Population and Climate Change in Australia: Implications for Health and Adaptation Planning](#), p15.

¹²² ICJ Advisory Opinion, *Obligations of States with respect to Climate Change* (Advisory Opinion) [2025] ICJ Rep 187, 131 [382], [384], [404].

¹²³ ICJ Advisory Opinion, [457E].

¹²⁴ The Committee found that Australia, by failing to adequately adapt to climate change, had breached their rights to enjoy their culture, and to be free from arbitrary interferences with their private life, family, and home. The Committee rejected Australia’s argument that it should not be held responsible because climate change has many contributors. See Daniel Billy et al, ‘Communication under the Optional Protocol to the International Covenant on Civil and Political Rights’, Communication to the Human Rights Committee in *Billy v Australia*, 13 May 2019, 6 United Nations Human Rights Committee, *Daniel Billy et al. v. Australia* (2019), available at tinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR%2fC%2f135%2fD%2f3624%2f2019&Lang=en. See [Australia violated Torres Strait Islanders’ rights to enjoy culture and family life, UN Committee finds.](#) | OHCHR and MELBOURNE JOURNAL OF INTERNATIONAL LAW for more information.

¹²⁵ See for example the submissions made by various experts to the *Select Committee on Adopting Artificial Intelligence (AI)*, [Final Report](#) (Nov 2024).

provide for cultural flows,¹²⁶ the adequacy of these regulations is questionable. Ultimately, despite serious impacts on Country and Cultural Heritage, First Nations do not have sufficient say about water extraction, including the issuing of water licences that will impact on Country (see for example the case study on the long-running Singleton Station proceeding below).

126. The sheer volume of water used by data centres (with the exception of a minority using non-water-based cooling options), regardless of what water saving measures are implemented, is also of particular concern in jurisdictions with severely inadequate water regulatory frameworks like the Northern Territory and Western Australia. In part, this lack of regulation is economically evident: the scale of water required for proposed data centres is similar to that proposed for Singleton Station, and this water would have been free, failing to reflect the social, environmental and cultural impacts of water use at such a scale. Even where there is a very detailed water regulation framework, as in the Murray Darling Basin, there are serious existing issues of overextraction and ecosystem decline.
127. Without sufficient safeguards in water regulation in various jurisdictions, the volume of water required for data centre developments, particularly those using water-based cooling, will inevitably impact on and limit First Nations rights to use and access water, including for cultural purposes, with flow on effects including to Country and Cultural Heritage.

Case Study 5: Water mining and licensing at Singleton Station

Large-scale water licences are unsustainable and inadequately regulated. This example highlights key tensions in Australian water law between economic development, environmental protection, and Indigenous rights.

Located on Kaytetye Country, south of Tennant Creek in the arid zone of Central Australia, the Singleton Station groundwater licence is one of the largest in Australia. Granted in 2021 to Fortune Agribusiness, it allows extraction of up to 40,000 megalitres of groundwater per year, over 30 years, to support a large-scale intensive horticulture project growing melons and avocados primarily for export. Native title holders of Singleton Station have been challenging the grant of this licence for five years. Mpwerempwer Aboriginal Corporation, represented by the Central Land Council, argued that the licence risks lowering groundwater levels and potentially damaging groundwater dependent cultural values, springs, soaks and sacred sites. After losing their challenge in the NT Supreme Court and appeal in the NT Court of Appeal, native title holders took their case to the High Court of Australia in an historic appeal heard in February 2026, and in August 2026, the High Court held in favour of the native title holders.

The High Court's decision in Singleton Station highlights the importance of First Nations being effectively and meaningfully engaged before a water licence is issued, and the need for government decision-making about water licences to be justified.¹²⁷

¹²⁶ For more about the concept of cultural flows, see: Murray Lower Darling Rivers Indigenous Nations (MLDRIN), 2007, *The Echuca Declaration*, [Echuca_declaration.pdf](#); see also, e.g. Murrumbidgee Catchment Nations and MLDRIN, 2026, *Murrumbidgee Catchment Nations Declaration*, [MURRUMBIDGEE-CATCHMENT-NATIONS-DECLARATION_split_spreads.pdf](#).

¹²⁷ See [Singleton native title holders win landmark water rights case - Central Land Council](#); [High Court native title win: Water decisions involve title holders; High Court rules in favour of native title holders fighting Northern Territory water licence - ABC News](#); and [High Court to Hear First Aboriginal Groundwater Rights Case](#).

Data centre developments threaten First Nations Country and Cultural Heritage

128. Due to a failure to implement FPIC through domestic law, projects with significant impacts on Country often proceed despite clear opposition from First Nations, with detrimental and severe ramifications for their rights, land, resources and Cultural Heritage.¹²⁸
129. We highlight, for example, the findings of the Joint Standing Committee on Northern Australia's Inquiry into the destruction of 46,000 year old caves at the Juukan Gorge in the Pilbara region of Western Australia.¹²⁹ The Inquiry found serious deficiencies across Australia's First Nations Cultural Heritage legislative framework in all states and territories and the Commonwealth. The recommendations have still not been implemented five years later and destruction of Aboriginal Cultural Heritage continues at an alarming pace. Without reform of Cultural Heritage laws, First Nations rights to culture and protection of Cultural Heritage are at serious risk of further degradation through data centre developments.¹³⁰
130. Governments and companies involved in data centre development should follow *Dhawura Ngilan (Remembering Country): A Vision for Aboriginal and Torres Strait Islander Heritage*¹³¹ to implement best practice cultural heritage management, including being transparent and accountable, and upholding First Nations' rights to FPIC. In relation to Cultural Heritage, FPIC means that First Nations decide what is Cultural Heritage and what sites are significant, whether and how to identify that heritage, and how such heritage should be protected. This approach must be applied when considering the location of any proposed data centres and associated infrastructure.
131. Data centre developments will also have direct impacts on First Nations Country, land and territories, and resources, including through land clearing, pollution, waste and contamination issues, as well as demand for energy and water, as addressed above. Further, the data centre developments and the critical minerals needed to power them are also likely to increase mining pressures on First Nations Country, given nearly 80% of critical mineral projects in Australia intersect with land over which First Nations hold Native Title or land rights claims.¹³²
132. The impact that data centres can have on ecological health (see above at paragraph 28) also have ramifications for First Nations peoples, where health of Country is integral to

¹²⁸ See for example Jenna Imad Harb and Shanine Ryan, "[The fight over AI data centres is becoming Australia's next Indigenous policy challenge](#)", *The Conversation* (28 August 2026).

¹²⁹ Joint Standing Committee on Northern Australia Inquiry, *The destruction of 46,000 year old caves at the Juukan Gorge in the Pilbara region of Western Australia, Final report: A way forward*, (2021), paragraphs 5.53-5.80, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Former_Committees/Northern_Australia_46P/Cave_satJuukanGorge/Report/section?id=committees%2freportjnt%2f024757%2f77841.

¹³⁰ The failure to protect First Nations Cultural Heritage is a clear breach of international law obligations, including UNDRIP, International Covenant on Civil and Political Rights (ICCPR), International Covenant on Economic, Social and Cultural Rights (ICESCR), International Convention on the Elimination of All Forms of Racial Discrimination (ICERD). For a detailed discussion of the inadequacies of First Nations' cultural protection in Australia, see pages 26-31 of [EDO's submission to the UN Special Rapporteur on Indigenous Rights \(April 2026\)](#).

¹³¹ *Dhawura Ngilan (Remembering Country): A Vision for Aboriginal and Torres Strait Islander Heritage*.

¹³² <https://www.csiro.au/en/news/All/Articles/2026/July/Indigenous-pathways-critical-minerals>

First Nations culture and wellbeing.¹³³ Ecological degradation that damages Country can disrupt First Nations connections to identity, culture and Country and, in turn, adversely affect First Nations cultural, social and emotional wellbeing.¹³⁴ The infrastructure itself and any tenures associated are also likely to limit First Nations access to Country.

Case Study 6: Community opposition to hyperscale data centre at Mandoon Bilya¹³⁵

A proposed 120MW AI facility adjacent to the Mandoon Bilya (Helena River) in Western Australia scheduled to be one of Australia's biggest hyperscale data centres was cancelled in May 2026,¹³⁶ following significant community opposition, including from Bibbul Ngarma Aboriginal Association.¹³⁷

Concerns with the project included threats to culturally significant river system Mandoon Bilya and the broader cultural landscape, environmental impacts on threatened species, the location of the project near residential areas and a school, insufficient planning for stormwater and waste, noise pollution, heat impacts and increased resource demand, including of water resources, as well as a lack of meaningful engagement with First Nations.¹³⁸

This example highlights the importance of data centres being in appropriate locations,¹³⁹ the need for all data centre projects to have sufficient social licence, and the consequences if they are poorly planned.¹⁴⁰ Crucially, it also highlights the importance, and value of, meaningful First Nations participation in decision-making about how and where projects are designed and delivered, and the risk that projects can pose to Country and Cultural Heritage.

Existing laws are insufficient to manage data centre impacts on First Nations

133. As such, the regulation of data centres must respond to the scale of data centre developments and their potential impacts on Country and Cultural Heritage. Commonwealth regulatory frameworks and approval processes regarding data centres must:

- uphold First Nations rights in UNDRIP and particularly the right to FPIC about developments and activities that happen on Country,
- ensure First Nations rights to access and use water, and rights to protect Country and Cultural Heritage, that will be impacted by large quantities of water that will be used by data centres,

¹³³ See for example: <https://soe.epa.sa.gov.au/health-of-country/perspectives-of-aboriginal-people-2>; <https://www.naidoc.org.au/get-involved/2021-theme>.

¹³⁴ Research consistently demonstrates that stronger connections to identity, culture and Country are associated with improved health and wellbeing outcomes for First Nations people. See summary of studies in <https://www.indigenoushpf.gov.au/measures/2-14-first-nations-people-with-access-to-their-tra#references>

¹³⁵ See for more Jenna Imad Harb and Shanine Ryan, “[The fight over AI data centres is becoming Australia’s next Indigenous policy challenge](#)”, *The Conversation* (28 August 2026).

¹³⁶ See [Locals save Mandoon Bilya from massive AI data cent... | National Indigenous Times](#)

¹³⁷ See [Locals save Mandoon Bilya from massive AI data cent... | National Indigenous Times](#);

¹³⁸ See [Cultural concerns over planned data centre near Man... | National Indigenous Times](#); [Locals save Mandoon Bilya from massive AI data cent... | National Indigenous Times](#)

¹³⁹ See [Locals save Mandoon Bilya from massive AI data cent... | National Indigenous Times](#)

¹⁴⁰ Bibbul Ngarma Aboriginal Association Inc’s submission to the City of Swan highlights some of these planning issues: [Microsoft Word - 20260318 BNAA Submission - Hazelmere DC DA-6](#).

- address the disproportionate impacts of environmental harm on First Nations communities that will arise from data centre developments fuelling Australia's reliance on non-renewable, polluting resources like gas, and
- implement the recommendations of the Juukan Gorge Inquiry to effectively protect First Nations Cultural Heritage in all developments, including data centre infrastructure.

134. Given EDO's expertise is in planning, environmental and cultural heritage law, we have not discussed the various other issues arising from the use of AI that impact on First Nations people, including Indigenous and Cultural Intellectual Property, and refer the Committee to submissions from First Nations individuals and organisations on these matters.

Recommendation 14: Decisions regarding data centre developments, including the regulatory framework that applies and assessment processes for individual projects, must reflect the inherent rights of First Nations peoples captured in UNDRIP, where FPIC is a mandatory requirement.

Recommendation 15: Through participation of First Nations, ensure that data centre projects are appropriately located, designed, operated and ultimately decommissioned, to ensure development avoids adverse impacts on First Nations Country and Cultural Heritage, as determined by First Nations, and First Nations access to their land, water and resources.

Recommendation 16: Decision-making about, and monitoring and evaluation of, data centres must be based on the best available science, including First Nations knowledges, while retaining First Nations control of this knowledge and expertise, including by instituting strong legal protections for Indigenous Cultural and Intellectual Property.

Impacts on human rights

135. Australia is the only liberal democracy in the world without a national Human Rights Act or Charter of Human Rights.¹⁴¹ Consequently, there is no legal obligation for federal decision-makers to consider human rights.
136. EDO urges the Federal Government to legislate a national Charter of Human Rights, including the right to a healthy environment, to ensure that human rights are a mandatory consideration for all national decision-making processes.¹⁴²
137. We are concerned that human rights considerations are effectively absent from the National AI Plan, National Expectations and the Prime Minister's media release regarding the AI Standards.

¹⁴¹ Australian Human Rights Commission, 'A Human Rights Act for Australia' (Factsheet, 2023) (available at: https://humanrights.gov.au/_data/assets/file/0028/46855/Free_equal_hra_2022_-_2_page_rgb.pdf).

¹⁴² EDO, 'A Healthy Environment is a Human Right' (Report, July 2022) (available at: https://www.edo.org.au/wp-content/uploads/2022/08/EDO_HealthyEnvironment_Full_Web.pdf) (EDO RTHE Report).

138. Australia is a party to both the ICCPR and ICESCR, among other international human rights instruments, and the Federal Government must act consistently with their responsibilities under these treaties.¹⁴³
139. The UN Independent International Scientific Panel on Artificial Intelligence identified significant challenges and risks to human rights posed by AI, finding that applying human rights frameworks systematically across the full AI life cycle is a promising approach to mitigate these challenges.¹⁴⁴ In particular, the Panel considered that human rights due diligence is a useful tool to identify AI-related risks.
140. Any regulatory framework must require proponents of data centre developments to identify potential inconsistencies with, or limitations of, human rights. This due diligence should be undertaken in accordance with the UN Guiding Principles on Business and Human Rights, as the authoritative global standards.¹⁴⁵
141. Further, it is essential that all data centres are consistent with human rights, in particular, the substantive and procedural elements of the right to a healthy environment.
142. The substantive elements of the right to a healthy environment comprise the rights identified by the UN Special Rapporteur on human rights and the environment, namely the rights to:¹⁴⁶
- clean air,
 - a safe climate,
 - access to safe drinking water and sanitation,
 - healthy biodiversity and ecosystems,
 - toxic free environments in which to live, work and play, and
 - healthy and sustainably produced food.
143. As outlined in Part 1 of this submission, data centres and AI infrastructure are known to have significant impacts on the environment, including air pollution caused by the use of diesel generators. We have expressed concerns that allowing data centre projects, such as Project Ares, to use fossil fuels to generate energy will undermine the renewable energy transition and contribute to climate change.
144. Water insecurity is an issue in Australia, particularly in First Nations communities as outlined earlier in our submission. The excessive water demands of, and wastewater

¹⁴³ Australian Human Rights Commission, 'Human rights explained: Australian and human rights treaties' (Article, 14 December 2012) (available at: <https://humanrights.gov.au/resource-hub/by-resource-type/education/human-rights-explained/human-rights-explained-australia-and-human-rights-treaties>).

¹⁴⁴ United Nations Independent International Scientific Panel on Artificial Intelligence, 'Evidence-based assessment of opportunities, risks and impacts of artificial intelligence' (Preliminary Report, July 2026) 25-26 (available at: https://www.un.org/independent-international-scientific-panel-ai/sites/default/files/2026-07/en_Preliminary%20Report_.pdf) (**United Nations AI Risks Report**).

¹⁴⁵ Australian Human Rights Commission, 'Actioning global standards' (Article, 25 June 2025) (available at: <https://humanrights.gov.au/resource-hub/resources-for-organisations-businesses/actioning-global-standards-on-business-and-human-rights>).

¹⁴⁶ See David R Boyd, Special Rapporteur on Human Rights and the Environment, Right to a Healthy Environment: Good Practices, UN DOC A/HRC/43/53 (30 December 2019) (available at: <https://www.ohchr.org/en/special-procedures/sr-environment/good-practices-right-healthy-environment>) (**Boyd RTHE Good Practices Report**).

produced by, data centres must be carefully managed to ensure it doesn't exacerbate these issues. As outlined in Part 1, water issues related to data centres aren't limited to direct water use. Wastewater output, potential for contamination, including PFAS contamination, and impacts to water resources caused by energy production such as fracking, i.e. Beetaloo Digital and Beetaloo Energy, all operate to compound the impacts of data centres on Australia's water resources.

145. The procedural elements of the right to a healthy environment align with those outlined in the 1992 Rio Declaration, that people must have the right to access information, the right to participate in environmental decision-making and access to justice.¹⁴⁷
146. As outlined in Part 2, development of the national regulatory framework should incorporate public consultation and the framework must impose robust reporting obligations on proponents of data centres and AI infrastructure, particularly in relation to energy and water usage and sources, and include clear, enforceable obligations. Without these elements, the regulatory framework cannot be said to comply with the principles outlined in the 1992 Rio Declaration.
147. It is essential the Federal Government legislate the right to a healthy environment within a national Charter of Human Rights to ensure these fundamental rights are protected and considered during decision-making.

Recommendation 17: Legislate a national Charter of Human Rights, including the right to a healthy environment, which should underpin a new regulatory framework.

Recommendation 18: A national regulatory framework must require proponents of data centres and AI developments to undertake human rights due diligence.

¹⁴⁷ Boyd RTHE Good Practices Report.