

26 June 2026

Senator Varun Ghosh
Chair
Environment and Communications References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Via: ec.sen@aph.gov.au

Dear Mr Ghosh

RE: Inquiry into artificial intelligence and data centres

The Green Building Council of Australia (GBCA) welcomes the opportunity to provide input to the inquiry into artificial intelligence and data centres.

This submission is in response to the data centres aspect of the inquiry. GBCA recognises that demand for data centres is increasing, mainly due to greater data generation and storage, growing adoption of cloud computing services, and advancements in technology (including AI). In 2024, Australia was a top investment location for data centres with \$6.7 billion USD¹, second only to the United States.

Data Centres are an important part of the digital economy, the case for considering the regulatory approach to data centres is their potential impacts on infrastructure, the community and the environment. The sustainability of data centres is an important aspect of the built environment and aligns with GBCA interests.

State Governments should use land use planning to proactively identify multiple suitable locations for data centres, ensuring they are sited where energy, water and communications infrastructure can be efficiently accessed and complementary industries can be located, while minimising conflicts with surrounding uses. Data centres should be regulated in this way due to their benefits, and unconventional demands and impacts.

There is currently no sector-specific best practice framework for sustainable data centre design, construction and operation in Australia, and international frameworks fall short as they don't fully reflect Australian conditions, climate, grid, or regulatory context. GBCA has established an industry working group to explore the role Green Star could play in this space to ensure delivery of sustainable data centres. This would be alongside state and federal regulatory action such as planning and minimum standards.

¹ <https://content.knightfrank.com/research/2982/documents/en/data-centres-global-report-2025-12054.pdf>

About the GBCA

GBCA's purpose is to lead the sustainable transformation of the built environment. We do this primarily through our core functions:

- We advocate policies and programs that support our vision and purpose.
- We rate the sustainability of buildings, fitouts and communities through Australia's largest national, voluntary, holistic rating system - Green Star.
- We educate industry, government practitioners and decision-makers, and promote green building programs, technologies, design practices and operations.
- We collaborate with our members and other stakeholders to achieve our mission and strategic objectives.

Green Star is Australia's most widely used sustainability rating system for the design, construction and performance of buildings – including social infrastructure – fitouts and communities. Green Star aims to transform the built environment by:

- reducing the impact of climate change
- enhancing our health and quality of life
- restoring and protecting our planet's biodiversity and ecosystems
- driving resilient outcomes for buildings, fitouts, and communities
- supporting and rewarding the development and use of sustainable products and materials
- contributing to market transformation and a sustainable economy.

What the goal should be

The Federal Government Expectations of data centres and AI infrastructure developers published on 23 March 2026² provide a good basis for assessing the effectiveness of regulation in achieving them. The summarised expectations are:

- Prioritising Australia's national interest - work for the benefit of the Australian economy, people and their local communities, minimising adverse effects on local communities wherever possible
- Supporting Australia's energy transition - not place upward pressure on energy prices and should make a positive contribution to Australia's energy transition
- Sustainable and efficient water usage - mitigate the impacts of water disruptions, drought and climate change
- Investment in Australian skills and workforce - help build a pipeline of skilled workers to support the construction and operation of data centres
- Research, innovation and local capability - contribute to building local technical and innovation capability and invest in Australian supply chains

Opportunities

Local Communities - why data centres are a difficult fit

Cities are first and foremost labour markets, a place where large numbers of workers and jobs are efficiently matched. Workers are attracted to cities for the range of jobs available, and

² [Expectations of data centres and AI infrastructure developers | Department of Industry Science and Resources](#)

employers for the range of workers. This is one of the reasons efficient transport and density is so important to shape the size and efficiency of the labour market.

Data centre location preferences are driven by the right combination of enabling zoning (usually industrial) and capacity to connect to high voltage power grids and fibre-optic networks. Data centres are a low employment land use. City fringe industrial land can often be cheaper than residential zoned land in a similar location, as residential zoning struggles to keep up with demand. In this way the planning system can preference data centres in these locations.

This combination means data centres are attracted to urban environments for the infrastructure rather than the labour market. Where a data centre is close to residential neighbourhoods it can lead to adverse effects on the local community such as noise and air pollution from diesel backup generators as well as other impacts.³

The opportunity is to identify locations where data centres can fund and access connections to power and communications networks, while reducing conflict with nearby residential development and avoiding land better suited to housing, particularly given current shortages and affordability pressures.

This would allow city planners to capture the benefits of data centres while reducing costs borne by the community. Allocating land in this way could also support complementary industries that use data centre outputs, such as waste heat, or provide sustainable inputs, such as recycled water. These industries may otherwise be unable to afford well-located urban land.

Energy Transition

Data centres have high electricity demand. A single large data centre can require as much electricity as thousands of homes. This is vastly more than a typical commercial building. This does not have to have negative implications for emissions targets. Data centres can be powered through 100% renewable energy. This means policy settings need to be in place to:

- Allow capital investment into renewable energy ahead of predicted electricity demand increases
- Mandate data centres to invest in relevant infrastructure and provide their own renewable energy where possible
- Make enabling and speedy planning decisions so that renewable energy deployment can stay ahead of demand growth
- Encourage data centres to provide demand response, deploy storage, and meet grid-support requirements
- Require energy efficiency standards
- Put in place policies to address embodied emissions across construction and equipment lifecycles

³ [Communities Are Raising Noise Pollution Concerns About Data Centers | Article | EESI](#)

- Support other uses to reduce energy consumption where more energy efficient options exist.

Water Usage

Water is emerging as a strategic planning and infrastructure consideration for data centre development in Australia. Data centres can have high water requirements associated with cooling systems. There are options such as closed-loop systems that use less water, and alternative technology for cooling. Water availability and impacts are very location dependent and could be regulated at a water catchment level. There is also an opportunity to investigate increased use of recycled water and ensure data centres contribute the capital required to expand water systems to accommodate increased demand.

The National Australian Built Environment Rating Scheme (NABERS) has secured funding to develop a NABERS Water tool for data centres. It is essential that this work, along with the further refinement of the NABERS Energy for Data Centres tool, be supported to encourage uptake of this essential industry benchmark.

The potential role of the regulation framework

A coordinated regulatory framework is required to ensure the rapid growth of data centres supports Australia's economic, energy and sustainability goals. This submission identifies four key components of that framework:

1. *Planning system and land use regulation*
2. *Strategic Planning and Infrastructure Funding and Finance tools*
3. *Minimum performance standards*
4. *Best Practice Standards*

The role of planning system and land use regulation

Land use regulation has a central role in managing the externalities associated with data centres, which have distinct locational and infrastructure needs. The planning system can help identify and secure appropriate locations for data centre development, both proactively through strategic planning and reactively through assessment of individual proposals. This is important to ensure data centres are located where they can access power and communications infrastructure efficiently while minimising conflicts with surrounding land uses.

Land use controls can also be used to place conditions on development so that impacts such as noise, waste, visual intrusion and other amenity effects are managed. The planning framework can also encourage nature-positive outcomes and support the delivery of enabling infrastructure needed for sustainable operation. These tools allow governments to balance the economic benefits of data centres with the need to protect communities, the environment and the efficient functioning of surrounding urban areas. Enabling infrastructure for sustainable operation can include:

- Transmission and firming for renewable energy generation
- Batteries
- Waste heat utilisation
- Recycled water

- DC power connections

Strategic Planning and Infrastructure Funding and Finance tools

Strategic planning and infrastructure funding tools have an important role in ensuring that land and enabling infrastructure are available for data centre development in the right locations. Cities routinely allocate land in advance for different uses, and data centres should be treated in the same way. If they are not planned for explicitly, they can end up competing with housing and other industrial uses for scarce well-located land. This is particularly important in metropolitan labour markets, where zoning and planning systems should reserve suitable space for infrastructure uses such as data centres, especially on metropolitan edges where access to land and major infrastructure corridors can be better aligned.

Strategic planning also intersects with energy system investment. Data centres could become anchor loads that help underwrite renewable generation within Renewable Energy Zones, but only where enabling infrastructure is delivered in step with demand. In practice, this means more timely investment in transmission, firming capacity such as battery storage, and streamlined connection processes so that renewable supply can keep pace with growth in electricity demand. The current wave of data centre investment therefore presents a window of opportunity to address existing system weaknesses while supporting a more coordinated and resilient transition to a low-emissions energy system.

Minimum performance standards

Minimum standards require projects to meet conditions set to the baseline social licence to operate. They should be the floor every facility must meet to manage system risks (energy, water, emissions, resilience, community impact). For data centres in Australia, risks include:

- Energy demand, including unpredictable demand spikes and sudden drops straining grids
- Emissions trajectory and the risk to net zero targets if energy demand is met by new or retained fossil fuels.
- Water scarcity with water demand creating scarcity or increasing infrastructure costs for residential water users
- Noise and air pollution close to other land users such as residential homes

An important part of establishing minimum standards is to set up transparency, measurement and reporting.

Data should be publicly reported, comparable across facilities, and independently verified to enable effective oversight and system planning. This will create a clear evidence base for policy, improve market accountability, and ensure cumulative impacts are visible.

There should be a structured process to set minimum standards. The process needs to bring together technical experts, industry, planners and community stakeholders. Standards should be evidence-based, technology-neutral, and calibrated to the Australian system.

Best Practice Standards

At the heart of our digital economy, data centres are critical to Australia's future – but their environmental and social impact is growing just as fast as their demand. Recognising that this is

an emerging but fast-growing sector of investment and development in the built environment, GBCA, is partnering with Data Centres Australia, as we launch our Sustainable Data Centres program to explore what best practice sustainability outcomes in the design, construction, and operation of data centres in Australia could look like. It is critical that we set the path for ensuring that these essential facilities are not only resilient and efficient, but also responsibly address energy, water, nature, and community impact.

GBCA's vision is for a positive, resilient and responsible digital built environment. We aim to deliver on this vision through the following actions:

- **Bring industry together**
Establish an industry working group of key stakeholders to advise on the development of resources and guidance, ensuring the future digital built environment is fit for purpose.
- **Deliver an issues paper**
Expand industry knowledge on sustainable data centre design, construction, and operation through the development of an issues paper and working with pilot projects. This will be supported by targeted education, media engagement, and guidance documents.
- **Develop best practice standards**
Develop guidance for the design, construction, and operation of sustainable data centres, driving innovation and value for investors, operators, and communities, and enabling Green Star certification.
- **Advocate for leadership**
Deliver a clear set of policy positions for government to implement to drive sustainable digital infrastructure in our country.
- **Collaborate for impact**
Collaborate with initiatives like Climate Bonds Initiative, Australian Sustainable Finance Institute, Global Real Estate Sustainability Benchmark (GRESB), and others to ensure sustainable finance flows toward high-impact digital infrastructure projects that meet our climate and resilience goals.

Existing Regulatory Framework

In our understanding the current system can:

- rely heavily on general planning and assessment tools
- lack clear forward land allocation for data centres
- lack integrated infrastructure funding and delivery mechanisms
- lack specific minimum performance standards
- only partially address energy, water, community and nature impacts in a joined-up way

The existing regulatory framework provides some relevant tools through planning, environmental assessment, infrastructure regulation and voluntary sustainability schemes. However, it remains fragmented and largely reactive. In contrast, GBCA advocates for a more coordinated framework that plans proactively for land and infrastructure needs, sets clearer

minimum sustainability expectations, and better aligns data centre development with community outcomes, energy system needs and broader environmental objectives.

GBCA welcomes the opportunity for further discussion. To arrange a meeting, a briefing on our work to date regarding data centres, or for additional clarification of the points made above, please do not hesitate to contact Corwin Wallens, Policy Manager, via email at corwin.wallens@gbca.org.au

Yours sincerely

A handwritten signature in dark ink, appearing to read 'D. Rooney', with a large, stylized initial 'D'.

Davina Rooney
Chief Executive
Green Building Council of Australia