Green Building Council Australia

Building a sustainable future

27 March 2026

Ms Abigail Boyd MLC
Chair
Public Accountability and Works Committee
NSW Legislative Council
6 Macquarie Street
SYDNEY NSW 2000

Via e-submission: https://www.parliament.nsw.gov.au/committees/inquiries/Pages/lodge-a-submission.aspx?pk=3169

Dear Ms Boyd

**RE: Inquiry into data centres**

The Green Building Council of Australia (GBCA) welcomes the opportunity to provide a submission to the Public Accountability and Works Committee inquiry into data centres.

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 USD[1], second only to the United States.

Data Centres are an important part of the digital economy, they enable connectivity, storage and processing of data. They are used in Artificial Intelligence, healthcare, and finance. The case for considering the regulatory approach to data centres is their potential impacts on infrastructure and the environment.

**NSW sustainability**

NSW has great examples of promoting sustainability through:

- Setting emissions reduction targets and establishing an independent Net Zero Commission to monitor progress.
- A major policy to transition NSW to clean, reliable and affordable energy.
- Circular economy policy.
- Non-residential development sustainability requirements.

It is likely that enabling and managing data centre growth will require a mix of:

- Land use planning to manage externalities
- Minimum building standards
- Best practice frameworks and leadership examples
- Enabling infrastructure provision (such as grid provided renewable energy)
- Consideration of embodied carbon and waste reduction in the supply chain.

[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.

**Data centres – define and deliver best practice**

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[2] 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.

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[2] https://new.gbca.org.au/green-star/green-star-strategy/sustainable-data-centres/

**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.

GBCA sees a role for the Green Star rating system in ensuring that data centres have an option to pursue and demonstrate sustainable solutions to their potential environmental and wellbeing impacts. This would be alongside state and federal regulatory action such as planning rules and minimum standards.

**Inquiry Terms of Reference**

As noted, the data centre sector is emerging and growing rapidly. GBCA is actively progressing the actions listed above. We have provided responses to the inquiry's Terms of Reference based on our engagement with industry to date. We look forward to contributing more detailed insights and evidence as our work advances.

**a) the scale and trajectory of data centre development in New South Wales**

Data Center Map[3] has 270 data centres listed in Australia. Sydney has 91 followed by Melbourne on 51. World trends, investment flows and access to technology point to continued growth in NSW. The amount of growth will be influenced by both demand and regulatory settings (predictability, approval likelihood, speed of decisions and any incentives/disincentives) and access to important resources such as well-located land, power and water availability.

**b) the planning framework enabling data centre developments**

Data centres rely heavily on strategic location. Proximity to end-users, access to power, reliable connectivity, and land availability drive site selection. The planning system has a role in:

- Proactively and reactively agreeing appropriate locations for data centres
- Placing conditions on developments to manage externalities such as noise, waste and visual impact
- Enabling supporting infrastructure.

**c) electricity demand, grid impacts and implications on emissions reduction targets**

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
- Encourage data centres to invest in relevant infrastructure and provide their own renewable energy where possible, and to the extent possible noting that this can assist with the NSW Renewable Energy transition.
- Make enabling and speedy planning decisions so that renewable energy deployment can stay ahead of demand growth

[3] https://www.datacentermap.com/australia/

- Encourage data centres to provide demand response, deploy storage, and meet grid-support requirements
- Require very high energy efficiency standards
- Put in place policies to address embodied emissions across construction and equipment lifecycles
- Support other uses to reduce energy consumption where more energy efficient options exist.
- Detailed and ongoing consideration by Infrastructure NSW and other parts of the NSW government to set up the frameworks for policy in these areas, as they are complex and evolving.

**d) water usage and cooling**

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 dependant and could be regulated at a water catchment level.

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.

**e) local environmental and community impacts**

Impacts can include noise, air quality and heat, traffic and construction impacts, land-use conflicts and amenity. Impacts vary by location and can be mitigated through planning controls. There is some opportunity to mitigate potential impacts through best practice design to reduce community disruption. Design can impact acoustic treatments, setbacks, and the selection of backup systems.

We note that in 2021, the State and Regional Development State Environmental Planning Policy (SEPP) was amended to temporarily allow more warehouses and data centres to be assessed as state significant development (SSD) (this bypasses local planning approvals)[4]:

- Data centres that have a total power consumption of more than 10 megawatts (or 15 megawatts from 1 June 2023) are SSD. SSD applications are lodged to the Department of Planning, Housing and Infrastructure and determined by the Independent Planning Commission or the minister.

- Data centres that do not meet the SSD criteria and have a CIV of more than $30 million are regionally significant development (RSD). RSD applications are lodged to councils and determined by a Sydney district or regional planning panel.

- Data centres that do not meet the criteria for RSD or SSD are local development. Local development applications are lodged to and determined by councils.

We recognise that while this can allow for more streamlined planning decisions, many of the impacts of data centres are felt at, and must be managed at, local and community level. These impacts must be carefully considered in any SSD or RSD process.

[4] https://www.planning.nsw.gov.au/policy-and-legislation/planning-reforms/ssd-warehouses-and-data-centres

On the 23 March 2026 the Department of Industry, Science and Resources released a document which sets out the Australian Government's expectations of data centres and AI infrastructure developers. The Australian Government will prioritise proposals most closely aligned with the expectations.

**f) Land use and housing**

Local externalities of data centres can include where backup generators can affect local air quality during testing and emergencies, requiring careful regulatory oversight. The planning system should have an important role here balancing land uses and requiring mitigating measures where appropriate.

If data centres add to demand for well-located land that could also be used for housing supply, it will be important to factor this demand into the zoned supply of residential land and enable additional capacity.

**g) economic and distributional outcomes of data centre developments**

Locations such as Western Sydney are hosting a significant share of data centre activity due to land availability, connectivity and energy links—leading to concentrated benefits and burdens. A strategic overview is needed to open multiple options for data centre development to help spread the costs and benefits. Real options require land availability, energy, water, connections and proximity to end users.

Where data centres drive additional demand for infrastructure in highcost areas, government should consider how the marginal costs are allocated to ensure other users, such as residents, are protected.

**h) governance, transparency and accountability**

Governance transparency and accountability are important at the planning, design, delivery and operational stages of a project. Reporting frameworks and standards should form part of operational transparency and accountability. Reporting can cover activities including time and source of power use, water use and disposal, and emissions.

**i) workforce considerations**

Workforce considerations will likely be the extent to which the data centre sector provides good quality employment, and especially the extent that local communities can benefit from training and experience. The different stages of a project are likely to require different skills. Data centre demand should be factored into existing skills training initiatives with a view to adding more places for relevant trades if demanded.

**Other Considerations**

*Embodied Carbon*
Embodied carbon is an important component of the built environment, including data centres. GBCA recommends embodied carbon as an additional area for the inquiry to consider the impact of data centres.

Data centres are large users of copper, they also use steel, concrete and aluminium. There are already examples where those commissioning data centres have partnered with companies to source lower-carbon copper[5] and are investing in next-generation carbon-free energy technology[6].

*Refrigerant choice and use*
Data centres generate large amounts of heat in operation, cooling is important to maintain performance. GBCA has developed the discussion paper *Freeze Frame: Refrigerants as long-term building infrastructure*[7] in collaboration with the Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH), it addresses the critical role refrigerants play in modern buildings and illuminates the challenges that the built environment must confront to mitigate environmental and health risks associated with refrigerant use.

Data centre developers, and policy makers in this area should:

- Reduce refrigerant use through passive design and energy efficiency solutions.
- Demand and provide low-impact refrigerant systems unaffected by phase-downs and PFAS pollution.
- Design buildings, plant rooms and systems to allow best practice leak mitigation and easy, low-disruption future upgrades.

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

Davina Rooney
Chief Executive
Green Building Council of Australia

[5] https://www.riotinto.com/en/news/releases/2026/rio-tinto-and-amazon-web-services-collaborate-to-bring-low-carbon-nuton-copper-to-u-s--data-centres

[6] https://international.austrade.gov.au/en/news-and-analysis/news/australia-apacs-rising-regional-hub-for-green-data-centres

[7] https://gbca-web.s3.amazonaws.com/media/documents/freeze-frame-discussion-paper-nov-2025.pdf