

Infrastructure NSW data centre consultation

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About the Justice and Equity Centre

The Justice and Equity Centre is a leading, independent law and policy centre. Established in 1982 as the Public Interest Advocacy Centre (PIAC), we work with people and communities who are marginalised and facing disadvantage.

The Centre tackles injustice and inequality through:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change to deliver social justice.

Energy and Water Justice

Our Energy and Water Justice work improves regulation and policy so all people can access the sustainable, dependable and affordable energy and water they need. We ensure consumer protections improve equity and limit disadvantage and support communities to play a meaningful role in decision-making. We help to accelerate a transition away from fossil fuels that also improves outcomes for people. We work collaboratively with community and consumer groups across the country, and our work receives input from a community-based reference group whose members include:

- Affiliated Residential Park Residents Association NSW;
- Anglicare;
- Combined Pensioners and Superannuants Association of NSW;
- Energy and Water Ombudsman NSW;
- Ethnic Communities Council NSW;
- Financial Counsellors Association of NSW;
- NSW Council of Social Service;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW;
- Salvation Army;
- Tenants Union NSW; and
- The Sydney Alliance.

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The Justice and Equity Centre office is located on the land of the Gadigal of the Eora Nation.

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Acronyms list

Acronym	Full name
AEMO	Australian Energy Market Operator
CUE	Carbon Usage Effectiveness
EWCAP	Energy and Water Consumers' Advocacy Program
NEM	National Electricity Market
PUE	Power Usage Effectiveness
WUE	Water Usage Effectiveness

1. Introduction

The Justice and Equity Centre (JEC) welcomes the opportunity to respond to the Infrastructure NSW Data centre consultation (the Consultation).

We support the development of clear, robust and consistent planning and operational standards and requirements for data centres. Without such measures, decisions will continue to be made on a case-by-case basis, with limited visibility of their cumulative effects on energy systems, water resources, and local communities. This risks inefficient investment, higher long-term costs, and avoidable and unacceptable impacts on essential services.

The starting point for any framework should be clear. The objective is not to maximise the number of data centres in NSW. It is to ensure those which proceed deliver a strong net public benefit, without incurring unacceptable impacts. This means assessing projects not only for their private economic contribution, but for their broader impacts on energy and water system efficiency and security, infrastructure costs, environmental outcomes, and community wellbeing.

Data centres rely heavily on shared energy and water infrastructure. They should therefore:

- Be designed to high standards of efficiency and operate as efficiently as possible
- Be required to support renewable energy and/or recycled water equivalent to their needs, in the most efficient way possible
- Avoid or minimise additional demand on constrained essential systems
- Avoid shifting costs and risks onto households
- Respond to the needs and interests of the communities in which they are located

This requires a shift in emphasis—from facilitating development to evaluating and ensuring overall value. It also requires a more deliberate approach to deciding which projects proceed, where they locate, and on what terms.

Well-designed standards and guidance can support this shift. They can provide clarity to proponents, improve coordination across agencies, and ensure decisions are made with a full understanding of system-wide impacts.

We refer to our recent submission¹ to the NSW Legislative Council Public Accountability and Works Committee inquiry into data centres, which sets out these issues in further detail and provides additional detail regarding recommendations. We encourage Infrastructure NSW to assess that submission in conjunction with issues we set out here.

2. Principle 1: Assess data centres on their public value

Data centres can support a broader digital economy. When well-integrated, they can also contribute to energy system efficiency, flexibility, and reliability. But these benefits are not automatic, and they should not remain private gains.

¹ See [JEC submission to NSW Parliamentary Inquiry on Data Centres](#).

Data centres rely on energy and water systems which are essential to households and are funded by them. Data centres should then be developed consistent with the principles and limitations of those systems. They should also share any benefits they derive from this operation, with households.

Data centre development is accelerating, driven by strong—often speculative—expectations about future digital demand. This creates both opportunity and substantial risk.

Accordingly, policy regarding data centres must move beyond narrow measures of their potential economic contribution. Assessments must consider the full impact of a project on the community and not be limited to hypothetical headline figures on jobs or investment.

A data centre that increases network costs, strains water supply, or reduces system flexibility can impose significant costs on the public which far outweigh any putative benefit. This essentially privatises economic benefit at cost to household consumers and the community. By contrast, a project that meets robust standards, is well positioned, minimises demand, uses recycled water, or provides valuable renewable energy flexibility can reduce system pressure and improve outcomes for consumers while maximising its overall economic benefit.

The purpose of the policy framework should be to enable decisions to distinguish between such developments. Government should prioritise proposals that provide clear system benefits while minimising risks and impacts, and filter out those that shift impacts, risk and cost onto households and the community.

This also requires challenging the assumption that all data centre investments are inherently valuable. In many cases, benefits are uncertain or delayed, while costs are immediate and measurable – and often substantial - and borne by consumers and communities.

The NSW Government should accordingly broaden its inquiry. While valid, the pertinent questions should not be limited to what opportunities data centre investment presents and how such developments can support local businesses and economic activity.

As industry observers point out², we should also be asking: what purpose does additional data centre load actually serve? Who is equipped—and accountable—to answer that question, and where should the burden of proof lie? What does it mean, in practical terms, for a data centre to expand its footprint on essential infrastructure and the communities that host it? And ultimately, who stands to benefit from that expansion?

Any doubt in answering these questions should not result in costs and risks being imposed on the community.

² See [Australia's data centre growth proportion now matches the US](#).

3. Principle 2: Unlock data centre flexibility for system benefit

We support the principle that data centre developers and operators must fully fund their infrastructure requirements, in addition to what is already planned and funded, so as to not increase prices for households. However, this principle could be strengthened through further prescription as set out below.

Energy infrastructure

Data centres are expected to drive a substantial share of demand growth in the National Electricity Market (NEM). This presents clear risks.

Australian Energy Market Operator (AEMO) forecasts indicate that data centres now represent half of all demand growth across the NEM³. This share of energy demand growth is in line with current trends in the United States⁴ which are derailing progress on emissions reductions.

We are deeply concerned that this level of demand growth is being driven by an industry that is not considering or acting in alignment with climate adaptation or action. Rapid demand growth increases pressure on the system at a time when the transition away from coal and gas is fraught with volatility and a range of risks. It raises costs, complicates planning, and delays emissions reductions if renewable supply cannot keep pace.

Data centres must play a direct role in avoiding and managing these impacts.

At a minimum, they should fully fund the costs of connecting to the network, including both shallow and deep connection costs, and contribute fairly to broader system investments⁵ from which they benefit.

In addition, data centres should be required to mitigate and manage their impact on emissions, and system impacts through operational obligations.

This should include requiring proponents to implement a combination of the following:

- A package of emissions-related measures such as contracting renewables equivalent to their energy consumption (as is currently required of the Sydney Desalination Plan); and
- A package of flexibility-related measures such as providing network support services, wholesale market participation, and a commitment to operating inside or outside of certain bounds to limit negative impacts on the grid.

³ See [AEMO Quarterly Energy Dynamics Q1 2026](#) pp. 8-9

⁴ See [International Energy Agency Key Questions on Energy and AI](#) p. 24

⁵ This should include the provision of system security and ancillary services proportionate to the scale of the development's contingency.

These approaches should be treated as complementary, giving proponents flexibility in the exact balance of how they meet their obligations while still delivering tangible benefits and contributing to emissions reductions objectives.

Current regulatory settings may also distort connection decisions. In particular, large users may be incentivised to connect in ways that avoid costs under the Electricity Infrastructure Roadmap, even where this is inefficient.

The NSW Government should therefore ensure that the cost of jurisdictional schemes such as the Energy Infrastructure Roadmap are shared fairly across all users – including those which are connected to the transmission system and currently excluded from Roadmap cost recovery - and that connection decisions reflect system efficiency, not cost avoidance.

Water infrastructure

Water use is an equally critical constraint.

There is a risk that data centres will exacerbate existing structural supply deficits (such as those which exist in the Sydney Water Catchment), or draw on spare water capacity intended to meet community growth and future household demand (for which households are already being charged). This would effectively prioritise industrial use over essential services, increase water supply risks and involve an unacceptable subsidy of data centres by household water users.

This should not be permitted.

Claims about future use of recycled water do not justify current reliance on potable water. Proposals that depend on uncertain future infrastructure expose households to real and immediate risks and costs.

Data centres should not rely on potable water. Where this is allowed data centres should be required to fund the replacement of any capacity they use and to do so within a clear and enforceable timeframe.

Policy should prioritise certainty. Essential water security and capacity should be protected unless equivalent capacity is secured without additional expense to consumers.

Stronger restrictions should exist where structural supply deficits or critical drought risks exist. That is – no new data centre related water use should be allowed in areas assessed to meet such circumstances.

4. Principle 3: Link efficiency standards to development approval

Data centres must operate efficiently if they are to be compatible with NSW's energy and water systems.

Efficiency standards

This requires clear, enforceable performance standards. At a minimum, projects should meet benchmarks for: power usage effectiveness (PUE), water usage effectiveness (WUE), and carbon usage effectiveness (CUE). These benchmarks should align with leading international practice and tighten over time.

Meeting these standards should be a prerequisite for development approval.

Renewables and flexibility

We do not support requirements for on-site dispatchable generation. In practice, such requirements are likely to increase emissions by encouraging fossil fuel use, particularly diesel generation.

Instead, policy should prioritise support for equivalent renewables, flexibility and demand management. Data centres are well positioned to contract with renewables and adjust workloads in response to system conditions. This capability should be used to reduce system stress and support renewable integration.

Backup

Where such measures are not feasible, the impacts of on-site generation and back-up – including batteries - must be carefully managed. This should include consideration of cumulative effects such as air quality and noise from backup generators, as well as the rate at which generation can ramp up.

Given claims from data centre operators that operation of such generators is not discretionary, the government should implement measures to ensure and verify that their usage is in line with community expectations and environmental standards.

Capacity mapping and management

Guidelines should ensure that data centre development aligns with the capacity limits of essential services. The NSW Government should coordinate energy and water system capacity and access mapping so that new developments connect where the grids can accommodate them most efficiently. Where constraints exist, proponents could be invited to bid for available capacity, helping ensure that the highest-value projects proceed and do so in a timely manner.

Such “bid for capacity” mechanisms would introduce competition for scarce hosting capacity, incentivise efficient design and operation, and discourage speculation or connection hoarding by linking approvals to clear use-it-or-lose-it milestones. They should also promote transparency through standardised disclosures on load profiles, operational flexibility, and water use—supporting better system planning and strengthening public accountability.

Finally, connections in high-risk areas should be explicitly prohibited, including regions facing structural supply deficits severe drought risk.

5. Principle 4: Introduce disclosure requirements to support planning

Robust disclosure requirements are essential to ensure that data centre development aligns with the principles outlined above. Without consistent and reliable information, governments cannot plan effectively, and communities cannot assess the impacts of large new loads on essential services.

The NSW Government should require standardised, enforceable disclosures covering key operational characteristics of data centres. At a minimum, this should include:

- electricity demand profiles, including peak demand and ramp rates
- expected load growth and utilisation over time
- operational flexibility, including the capacity to shift or curtail load
- water use, including source, volume, and timing of demand
- energy sourcing and emissions performance

These disclosures should be provided at the development stage and updated regularly once operations commence. They should be structured in a consistent format to enable comparison across projects and aggregation at the system level.

Beyond project-level disclosures, the NSW Government should improve the quality and consistency of system-wide modelling. At present, forecasts of data centre impacts vary widely, reflecting inconsistent assumptions about how these facilities operate.

Adopting shared assumptions will produce more reliable forecasts and reduce the risk of underestimating system impacts. It will also ensure that proposals are assessed on a consistent and transparent basis.

Taken together, these measures will give government the information it needs to manage growth in data centres proactively, rather than responding to its impacts after the fact.

6. Principle 5: Apply consistent performance-based requirements

We support planning requirements based on performance outcomes rather than prescribed inputs. This approach allows for innovation and recognises that data centres vary significantly in their design, operation, and system impacts.

However, performance-based regulation only works when it is grounded in clear, enforceable outcomes.

Data centres are not uniform. Some projects are well placed to deliver system benefits—for example, by providing demand flexibility, integrating renewable energy, or using recycled water. Others face more limited opportunities due to their location, design, or technical constraints.

The planning framework should reflect these differences. Projects should be assessed on their demonstrated capacity to deliver measurable outcomes, not on stated intentions or future aspirations. Commitments made at the approval stage must be credible, verifiable, delivered within set timeframes and enforceable over time.

Baseline requirements for efficiency, emissions, and resource use should apply to all data centres, regardless of location. Performance-based approaches should operate above this floor—not replace it. Without clear minimum expectations, there is a risk that flexibility becomes a substitute for rigor.

This is particularly important in a regional planning context. Efforts to encourage development outside constrained urban areas should not create a two-tiered system in which lower-quality or more resource-intensive projects are approved simply because they are located in less densely populated regions.

Such an outcome would shift environmental and infrastructure burdens onto regional communities while undermining the integrity of the overall framework.

Consistency is therefore critical. The same core standards should apply across NSW, with location influencing how outcomes are delivered, not whether they are required.

7. Continued engagement

We welcome the opportunity to meet with the NSW Government and other stakeholders to discuss these issues in more depth. Please contact Jan Kucic-Riker at jkucicriker@jec.org.au regarding any further inquiries.