NSW GOVERNMENT

NSW Data Centre Consultation Paper

March 2026

Acknowledgement of Country

The NSW Government acknowledges the Traditional Custodians of the lands where we walk, work and live. We pay respect to their Elders past and present.

We acknowledge and respect their continuing connection to the land, seas and waterways of NSW, and the continuation of their cultural, spiritual and educational practices.

In preparing the consultation paper, we acknowledge the importance of Aboriginal and Torres Strait Islander peoples' unique history of land and water management, and of art, culture and society, that began more than 65,000 years ago.

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1 | Executive summary

Nearly all global digital activity depends on data centres – they are fundamental to modern life and are the backbone of modern productivity.

According to the World Economic Forum, they are the "significant driver of business investment and GDP growth" with the World Bank stating that the Digital Economy comprises about 15 percent of world GDP in nominal terms. Data centres can be investment multipliers that attract industries that benefit from low-latency connectivity, dense network ecosystems, and large scale compute access.

However, data centres also use resources the entire community need. With this rapidly growing investment comes increasing demand for electricity and water.

The Australian Energy Market Operator (AEMO) projects that energy consumption from data centres could almost double by 2030. Water demand is also expected to rise, occurring along with rising demand from other users and long-term challenges to water security.

Increased utility demand presents challenges, but these can be met through cooperation and contribution from proponents, utilities, community and government.

This consultation document presents a principles-based approach to working through the opportunities and challenges – with industry and stakeholders – to ensure NSW can continue to be well positioned in the economy of the future.

The principles are:

1. Investment in data centres should enable a wider technology ecosystem that drives job creation and propels economic growth
2. Data centre developers and operators need to fund their infrastructure requirements, in addition to what is already planned and funded, so as to not increase prices for households
3. Data centres need to be efficient and make sustainable use of our energy and water systems as well as the environment
4. Data centre approval and compliance must be based on reliable and transparent data
5. Regulatory and planning settings must take account of differences in the size and location of data centres, and community needs

These principles aim to facilitate a conversation about both data centre investment and mitigating the potential impacts on the community, other industries, and the environment. These principles are consistent with the national data centre expectations published by the Australian Government on 23 March 2026.

The NSW Government is seeking to engage industry, community and sector stakeholders in a discussion about options to implement these principles.

Feedback will help design a transparent framework that provides clear assessment measures around data centre investment and managing risks for the community.

2 | Introduction

Nearly all global digital activity depends on data centres. AI, fintech, gaming, cloud companies and industries, like remote healthcare rely on cloud computing – each require data centre access to operate and grow. These sectors benefit from co-locating near data centres to optimise compute density, high-speed connectivity, latency-sensitive workloads, and flexible scaling.

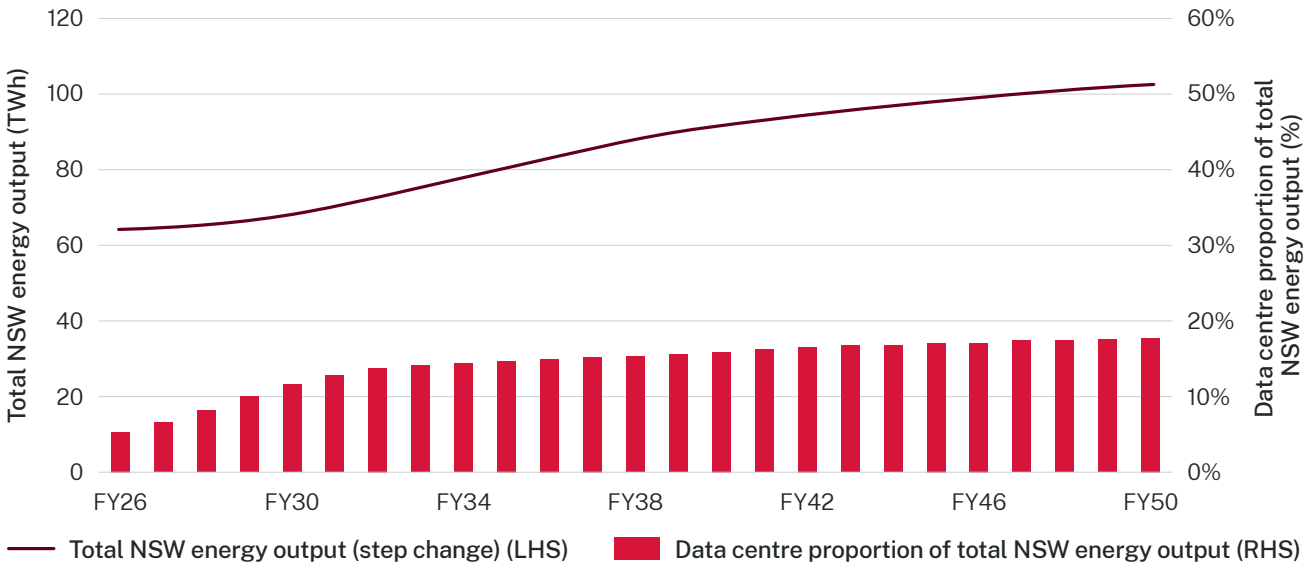
The value of data centre investments in NSW has been escalating at 65% a year on average over the last 3 years, reaching $2.6 billion in 2024-25 – around 12% of all non-residential building investments.

NSW is amongst the most active jurisdictions for data centres globally, with 90 data centres currently operating. We expect data centre capacity to grow markedly in the coming decade (Figure 1) with significant international investor interest in the state.

Fifteen data centres are in the State Significant Development (SSD) planning pipeline valued at $29.4 billion. The Investment Delivery Authority is assessing 26 submissions worth $100 billion in the first round of Expressions of Interest process, some of which are already in the SSD pipeline.

Investment in data centres in NSW has the potential to support data sovereignty, facilitate productivity, expand digital industries, and attract global technology businesses to NSW. But there are challenges.

Figure 1 | Forecast data centre demand as a proportion of total energy demand in NSW



Source: Oxford Economics (2025) and the Australian Energy Market Operator (2025) – *Step Change scenario*

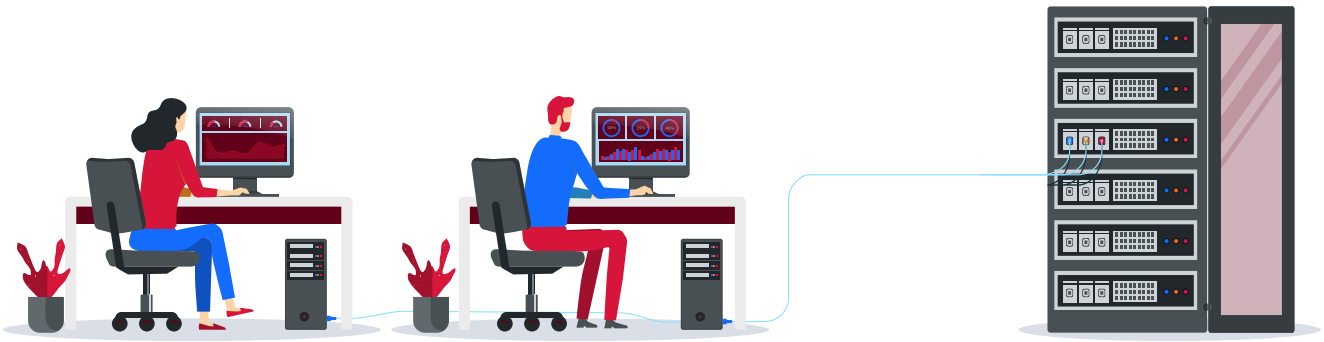
AEMO forecasts that energy consumption from data centres will double from 5% of NSW's grid-supplied energy in 2026 to 11% by 2030.[1] In comparison, electricity use for all NSW Government buildings and Transport for NSW operations form 4% of grid demand. Without a corresponding increase in energy generation, this increase in demand would place upward pressure on wholesale electricity prices.

Growth in energy demand from data centres that is not met by additional renewable energy generation would add to existing challenges for achieving NSW's legislated 2030 and 2035 emissions reduction targets.

The increase in water demand from data centres occurs alongside rising demand from other users and long-term water security challenges.[2] Differences between credible forecasts of expected water use make infrastructure planning difficult. This challenge underscores the need for stronger collaboration between investors and utility providers.[3]

The large scale of potential investments in data centres presents an opportunity to address the state's energy and water challenges more strategically with collaboration between industry, utilities and government. The investment from data centres can mobilise renewable energy generation projects. It could help expand rainfall independent water supplies, like water recycling and desalination capacity, and supporting NSW with its wastewater management.

Greater collaboration between NSW Government and industry can cement a technology ecosystem in NSW and support local supply chains for the sector's inputs, driving wide benefits for the state.



1 Australian Energy Market Operator (AEMO), 2025–26 inputs, assumptions and scenarios, AEMO, 2025.
2 Department of Planning and Environment, 'Greater Sydney Water Strategy', DPIE, 2022.
3 For example, Sydney Water forecasts differ drastically from those in a report commissioned by the data centre industry. See Mandala, 'Data Centres as Enabling Infrastructure', Mandala Partners, 2025.

3 | Purpose of consultation

The NSW Government is inviting feedback from industry and other stakeholders on how the principles outlined in this document can be achieved. The feedback received will inform refinement to the guidance the NSW Government provides around the approval of data centre investments.

The purpose of this Consultation Paper is to facilitate a conversation around sustainable and equitable investment in data centres to deliver broader economic benefits for NSW. The document also aims to provide input in creating a smoother planning process for SSD applications for new data centres.

NSW's approach to data centre investment is supported by five principles:

1. Investment in data centres should enable a wider technology ecosystem that drives job creation and propels economic growth
2. Data centre developers and operators need to fund their infrastructure requirements, in addition to what is already planned and funded, so as to not increase prices for households
3. Data centres need to be efficient and make sustainable use of our energy and water systems as well as the environment
4. Data centre approval and compliance must be based on reliable and transparent data
5. Regulatory and planning settings must take account of differences in the size and location of data centres, and community needs

Section 4 discusses each principle and offers some indicative questions to facilitate discussion.

The NSW Government will collaborate with industry and other stakeholders following release of the Consultation Paper to continue to update the NSW Government's policy position.

The NSW Government is also consulting on a Statewide Industrial Lands Policy to establish a consistent, evidence-based framework for planning for new employment land and protecting and intensifying existing industrial land across NSW. This will complement the guidance to Government on data centres, as they are permissible in industrial and employment land precincts across NSW.

4 | A principles-based approach to data centre investment in NSW

Principle 1 **Investment in data centres should enable a wider technology ecosystem that drives job creation and propels economic growth**

- **What opportunities does data centre investment present to you and your sector?**
- **How can data centre development best support local businesses and economic activity?**
- **What are the economic opportunities for NSW?**

NSW is an attractive investment destination for data centre development due to its strategic location, reliable infrastructure, geopolitical and financial stability, alongside data security. NSW data centre construction commencements have increased 65% per annum on average over the past three years, reaching $2.6 billion in 2024-25.[4] Actual investment by data centres would be higher as construction commencements do not include spending on equipment.

Data centres can support NSW businesses to drive growth. They stimulate digital industries and attract foreign investment from global technology companies seeking reliable and renewable energy for customers in the Asia-Pacific region. Investment in NSW also facilitates data sovereignty, offering locally-governed secure storage and sensitive information processing.

Significant opportunities exist in industries like AI, fintech, gaming, and essential services like remote healthcare, alongside critical systems like weather forecasting, police operations and financial system operations. Each of these industries require data centres to operate and grow. These sectors can benefit from co-locating near data centres to optimise compute density, high speed connectivity, latency sensitive workloads, and flexible scaling.

The benefits and opportunities of data centres locating in close proximity to existing industry will be considered in the consultation process.

Past consultation suggests a significant share of data centre capital expenditure is on imported components and equipment, such as IT hardware, power and cooling equipment.

Collaboration with industry to develop local content measures can deliver further benefits.

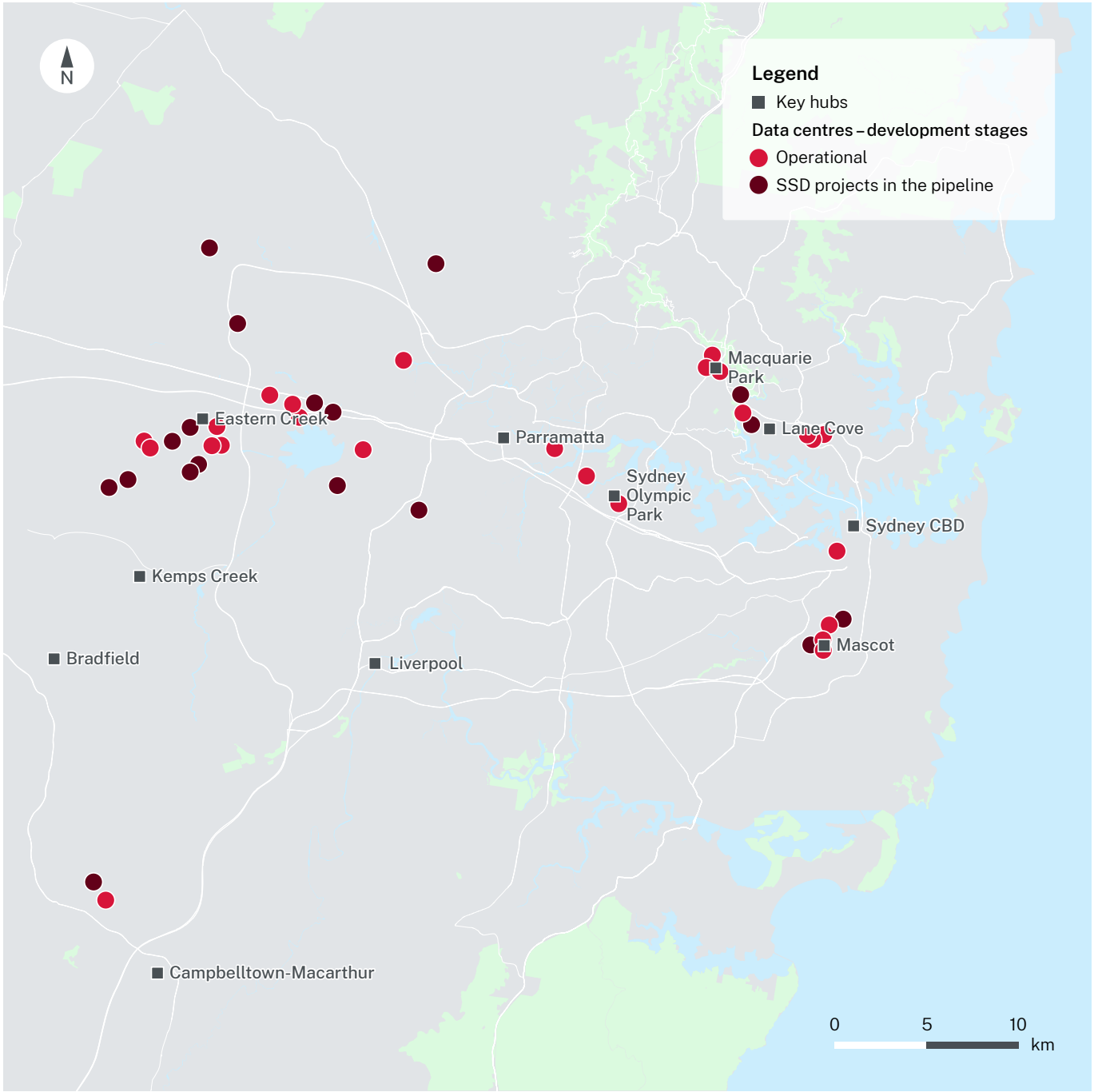
The NSW Government can work with data centre proponents to develop local content measures. Well-designed local content measures would drive uptake of NSW and Australian products and services, which supports local supply chains and jobs, particularly in domestic manufacturing and construction.

The NSW Government can also work with data centre providers to consider how it can encourage the development of industries that position NSW for growth and benefit from low latency connectivity, dense network ecosystems, and large scale compute access.

4 Analysis of Australian Bureau of Statistics; Value of construction commenced on data centres and other commercial buildings (not elsewhere classified) in NSW. '*Table 61. Value of Non-residential Building Work Commenced by Sector, New South Wales – Original*'.

Opportunities to co-locate industries that rely on extreme compute density, high speed connectivity, latency sensitive workloads, and flexible scaling, will be explored.

Figure 2 | Existing operational data centres and SSD projects in the NSW planning pipeline[5]



Source: Oxford Economics (2025) and NSW Department of Planning, Housing and Infrastructure (2025)

5 As at October 2025. The majority of developments shown on map are from 2016 onwards with a construction value of $20 million or higher. Further effort was made to include older existing data centres where possible. However, there are further data centres not shown that do not meet these thresholds.

Principle 2 Data centre developers and operators need to fund their infrastructure requirements, in addition to what is already planned and funded, so as to not increase prices for households

- **How can industry support additional renewable energy generation and firming (e.g. batteries)?**
- **Are there market-based solutions that can match additive utility capacity with energy and water demand?**
- **How can industry support government efforts to develop additional water and energy infrastructure, while ensuring costs are shared fairly?**

Energy infrastructure

Power Purchase Agreements (PPAs) may mitigate wholesale price impacts from increased energy demand.[6] The growth in energy demand from data centres presents an opportunity to support new renewable energy generation and storage capacity in NSW. Upward pressure on wholesale energy prices could be mitigated by facilitating new energy supply, but we need strong collaboration between industry, utilities and government.

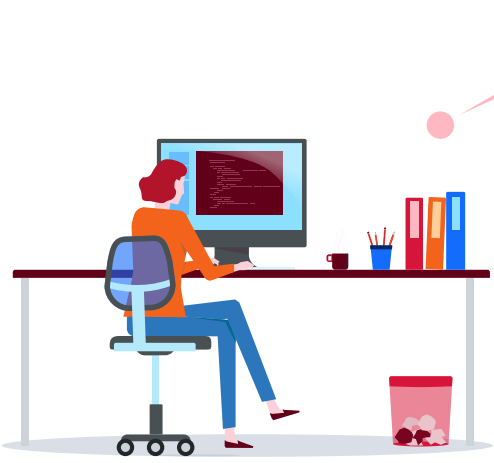
Cost recovery regimes should be reviewed at the respective national and state levels to ensure upgrades required for data centre connections are paid for by data centres.

The existing cost recovery approach is designed for gradual electricity infrastructure augmentations that meet growing demand across a broad consumer base, rather than more significant step changes in demand. Data centres currently pay for both the cost of direct connections to the network as well as immediate upgrades to dedicated transmission or distribution-level connection assets.[7]

When there is not enough capacity in the upstream transmission network, and augmentations are needed, costs are currently recovered through the wider consumer base. Cost allocation is even more challenging for transmission infrastructure upgrades required upstream, like bringing energy into Greater Sydney through large transmission projects like the Sydney Ring South.

Additionally, the cost of delivering the Electricity Infrastructure Roadmap, which includes delivery of the NSW Renewable Energy Zones and associated transmission lines, is currently recovered from distribution consumers through their retail bills. This means large data centres connecting directly to the transmission network would not pay towards the Electricity Infrastructure Roadmap.

While regulatory regimes are reviewed, energy utilities could negotiate private commercial agreements with proponents to ensure data centres pay for the infrastructure upgrades required, including further upstream.



6 CEFC, 'Getting the balance right: data centre growth and the energy transition', Baringa, 2025.

7 The regulatory framework calls these 'dedicated connection assets' and 'identified user shared assets'.

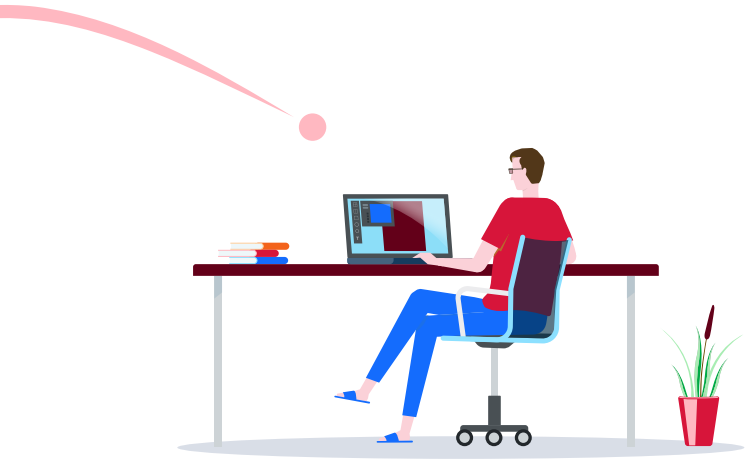
Water infrastructure

Water utilities could negotiate bespoke agreements with proponents, including through negotiated service agreements to ensure data centres pay for the infrastructure upgrades their connections require.

Data centre developers currently fund 100% of water pipeline augmentation that directly benefits their site. They also pay location-based developer contributions to Sydney Water, as determined by the Independent Pricing and Regulatory Tribunal (IPART). In addition, Sydney Water recovers costs for technical assessments including environmental and design reviews from project proponents.

In the near-term, data centres' relatively fast connection timeframes mean they are likely to use the spare water infrastructure capacity, which has been built to service future customer demand, like households. Government must consider the displacement of this capacity as new data centre developments occur. This could mean adding new infrastructure to increase recycled water or increase water desalination treatment capacity.

Data centres also have higher operational water servicing costs due to the higher level of service continuity and supply needed, and produce poorer quality wastewater, compared to typical water consumers.



Principle 3 Data centres need to be efficient and make sustainable use of our energy and water systems as well as the environment

- **What performance measures and actions will be effective in driving sustainable data centre investment in line with the proposed principles?**
- **What are the impacts that need to be considered for broader community resources as well as the requirements for investment?**
- **How can industry support water and energy system sustainability and mitigate environmental impacts?**

Energy and water use

Proposed data centres could be designed to achieve Power Usage Effectiveness (PUE) and Water Usage Effectiveness (WUE) thresholds consistent with international benchmarks.

Data centres already seek to optimise their water and power. While performance benchmarks can help expedite planning decision making, these benchmarks could offer flexibility for proponents to consider their site constraints while ensuring the state's energy and water resources are used efficiently. Benchmarks can also have regard to system reliability and security, like in other advanced jurisdictions, such as the EU and Singapore.[8]

8 *European Parliament Directive (EU) 2023/1791* has proposed amending the existing Regulation (EU) 2023/955 to implement mandatory WUE targets; Singapore Government, SS 564 Green Data Centre Standard.

Energy

Data centres could support the energy grid by demonstrating efforts to manage their grid-connected energy consumption during periods of high electricity demand or low generation.

The NSW Government would like to explore how it can work with industry to manage the sustainability of the energy grid, particularly in periods of high demand. Ensuring system reliability and security, while limiting impacts on wholesale prices and negative environmental outcomes, is essential for meeting societal expectations.

Measures are being introduced in other jurisdictions such as Ireland, where the energy sector regulator is requiring new data centres to install on-site or proximate dispatchable generation (e.g. gas generation or battery storage).

Most data centres in Australia are currently cloud or AI inferencing, which cannot be switched off or turned down, unlike AI training data centres.

Most data centres in NSW do not currently use natural gas generators, nor do they currently have battery energy storage systems (BESS) installed onsite.

In NSW, diesel generators have been a common form of on-site back-up power generation to manage extreme risks, like power failure. However, transitioning to large scale use of diesel generators could result in data centre operators breaching clean air environmental protections and require licencing from the NSW Environment Protection Authority.

Alternatively, utilising larger BESS (located onsite where appropriate or nearby) and intelligent workload management systems could mitigate grid impacts. This technology is increasingly required by regulators in the US and elsewhere.

Water

Data centres should utilise recycled water for water-intensive cooling systems, where feasible.

Investing in recycled water servicing options would limit data centres' impact on the broader drinking water network and other water users. A higher WUE could be considered where non-potable water is used, to encourage its use and recognise the potential need for larger volumes of non-potable relative to potable water in cooling.

Access to recycled water supplies or the feasibility of a new connection may depend on a data centre's location. While there is a steady pipeline of investment in new water infrastructure, it is likely that additional sources will be required over the next decade. Data centres should consider localised access to existing and future planned recycled water capacity through early consultation with their relevant water utility.

The NSW Government will also consult on drought management and data centre growth.

Several design solutions already exist, such as hybrid cooling systems, that allow for reduced water use in case of drought, in line with water restrictions imposed on the broader community. The discussion should also consider drought exposed locations rather than a statewide application of any requirements.

Other environmental matters: Backup diesel generator impacts and sensitive sites

Data centres use diesel generators as critical backup power supply. This means they are used for a limited number of hours throughout the year, primarily for testing. Data centre operators state that generator operation is not discretionary. It is required to maintain load stability and system security when the grid is under stress to ensure critical workloads like flight control, banking, government service, health and transport systems do not encounter outages. Regular operation of backup diesel generators is also required to confirm operability.

However, diesel engine exhaust contains high levels of pollutants, including fine particulate matter (PM2.5) and nitrogen oxides (NOx), which are linked to adverse health outcomes. The NSW Government has existing regulatory frameworks for air quality in place, which are already applied to other industries. These could also be applied to data centre developments to protect public health.

Further work is needed to manage the impacts of backup diesel generators.

Other impacts requiring further investigation include management of data centres clustering near sensitive sites (e.g. residential areas or schools), and opportunities to increase the supply and uptake of renewable fuels (e.g. from plant oils or waste fats).

Data centres near community and environmentally sensitive sites already undertake detailed assessments and further clarity regarding expectations of projects could help to smooth the planning process.

Community sensitive sites include schools, hospitals, aged care facilities, and residential areas. Environmentally sensitive areas include water-stressed regions and areas of high biodiversity value. Noise and pollution impacts are more pronounced on these sites, particularly when multiple data centres are clustered in a single location in close proximity. Guidance for projects can help to simplify project design and decision making.

Other environmental matters: Circular economy, carbon, and broader sustainability outcomes

The NSW Government will collaborate with industry to investigate measures to drive better circular economy, carbon, and broader sustainability outcomes for data centres.

The construction and operation of data centres involves significant impacts associated with material use, resulting in a range of impacts, including embodied carbon emissions and impacts from e-waste. These broader sustainability outcomes can be driven by best practice sustainability rating schemes and other targeted measures.

The *State Environmental Planning Policy (Sustainable Buildings) 2022* (SB SEPP) sets sustainability standards and rating requirements for buildings but does not currently cover industrial facilities and data centres. Existing sustainability rating schemes in Australia require updating to better cover data centres. NABERS has an existing energy rating tool for data centres but important water use trade-offs are not considered. Industry feedback has indicated better alignment with international standards is needed. Data centres can be rated under Green Star Buildings, but sector-specific guidance is not yet available, though a newly formed partnership between the Green Building Council of Australia and Data Centres Australia could address this.[9]

Data centre developers have been giving considerable thought to these issues over many years and are well advanced in their thinking and understanding of the challenges. An industry-government workshop should be convened to share ideas on what is possible.

There is potential to apply carbon measurement and reduction frameworks and sustainability rating schemes to data centres, through the SB SEPP or other mechanisms. Potential carbon measurement and reduction frameworks include the NSW EPA *NSW Guide for Large Emitters*, NABERS *Embodied Carbon Calculator*, and NSW *Decarbonising Infrastructure Delivery Policy*, which are being applied to other facilities and buildings. A review of suitability for data centres and ability to drive outcomes is required. Duplication in reporting under multiple different frameworks should be avoided, to minimise reporting burden on industry.

E-waste is a significant impact for data centres, which can be managed through product stewardship and dedicated e-waste handling and recycling facilities. Engagement should be undertaken with the data centre and waste industry to investigate improvement opportunities.

9 GBCA, 'Sustainable Data Centres', GBCA, 2026.

Principle 4 Data centre approval and compliance must be based on reliable and transparent data

- **What performance measures and actions will be effective in driving sustainable data centre investment in line with the proposed principles?**
- **What information does industry need to provide clarity in proposals?**

The NSW Government needs reliable and transparent water and energy demand data from data centres to inform infrastructure planning and network impacts. Having reliable data for both energy and water demands will also inform opportunities to better balance the use of these two resources.

Data centre proponents should work with government to provide water demand forecasts earlier in the planning process.

Currently, precise data on the water demand of data centres is not readily available during the planning phase, while better quality energy data is being provided to utilities. These issues create infrastructure planning risks and uncertainty, which could ultimately lead to stranded or strained assets and issues for cost recovery.

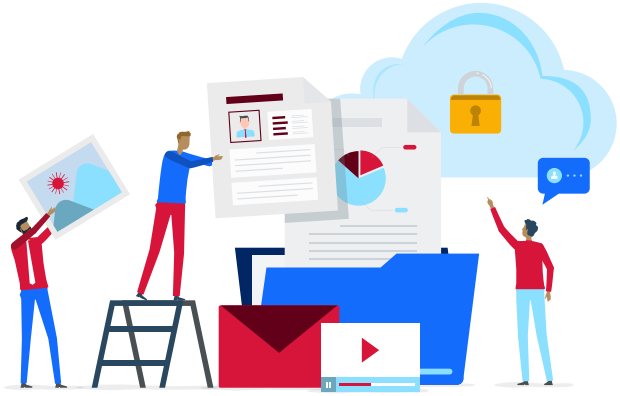
Early discussions suggest data centre operators are prepared to work with government and utilities to provide more data – noting that data around future demand is commercially sensitive and must be provided in confidence to avoid jeopardising commercial agreements. Data sharing would be consistent with legislation. Developers already provide some of this data to government agencies like AEMO under the National Electricity Rules, which ensures confidentiality of commercially sensitive information.

Smart water meters at data centres could improve monitoring of actual water use by utilities.

These smart meters allow for better data on usage patterns and facilitate easier data sharing and infrastructure planning. Utilities should engage with industry to ensure such devices work within existing operations and do not compromise security provisions of the *Security of Critical Infrastructure Act 2018* and related regulations or requirements within customer contracts.

NSW Government will collaborate with industry to improve approaches for forecasting water and energy demand, including by aligning assumptions.

The quality and consistency of demand forecasts can be improved by agreeing common assumptions, such as default ramp up rates, demand profiles and mature utilisation factors.



Principle 5 Regulatory and planning settings must take account of differences in the size and location of data centres, and community needs

- **What further collaboration opportunities could be investigated?**
- **How can planning and regulatory settings support industry to adopt and invest in best practices that are tailored to project conditions?**

The NSW Government needs a flexible, performance-based approach to assessing data centre development to help simplify the planning process for decision makers and proponents. This approach should be based on good practice outcomes that give proponents the flexibility to negotiate different measures where appropriate.

Planning requirements should be flexible and based on performance outcomes rather than fixed inputs.

Data centres vary significantly in size and operating profile, and planning requirements should focus on project outcomes and impacts on resources, rather than mandating uniform solutions. A performance-based approach in the context of resource availability and community needs allows proponents to meet environmental, infrastructure and service objectives that are best suited to their specific needs.

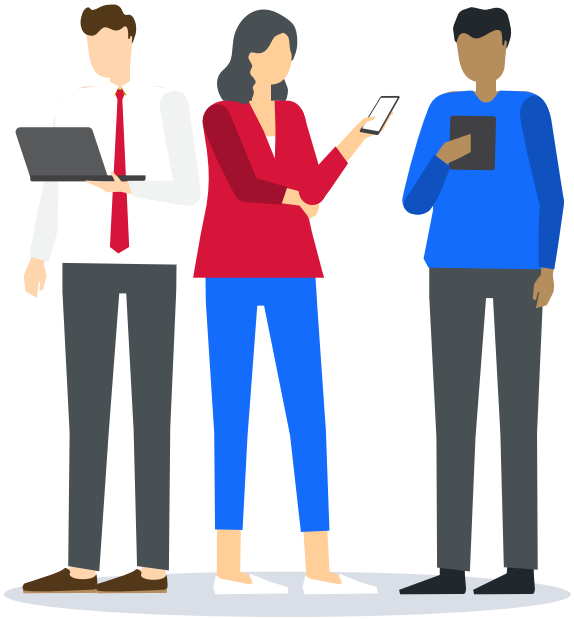
Greater flexibility should apply where infrastructure and resources are less constrained.

Data centres locating outside Greater Sydney may face different conditions, including availability of energy, water, and lower competition for land availability. Planning settings should recognise these differences and avoid application of assumptions where system capacity and impacts may be materially different.

Allowing greater flexibility for data centres outside the Sydney region can support regional economic development, and reduce pressure on heavily constrained urban systems.

Performance based requirements should still maintain clear expectations and accountability.

Flexibility should not reduce standards or transparency but instead provide multiple pathways for data centres to demonstrate that projects meet NSW Government principles.



5 | Next steps

The NSW Government is seeking feedback in order to design a transparent policy framework that facilitates data centre investment in NSW while managing risks for the community.

Written feedback is being sought over a six-week period, supplemented by industry and sector-based engagement by the NSW Government.

Feedback will inform development of NSW Data Centre Guidelines, which will aim to simplify decision making, while managing risks to energy and water security as well as air quality from data centre development.

In the interim, the Department of Planning, Housing and Infrastructure will continue assessing SSD applications in accordance with the *Environmental Planning and Assessment Act 1979*.