NSW GOVERNMENT

NSW Data Centre Guidelines

August 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 NSW Data Centre Guidelines, 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.

Contents

1 Overview and approach of the NSW Data Centre Guidelines

The NSW Government supports world-class data centre investment in the state. Data centres are critical to the economy and central to our way of life and the operation of most industries, from electronic communications, to the global payments system, to air traffic control. Beyond this, the scale of investment presents the opportunity to develop technology-enabled industries that will drive job creation and propel economic growth, including in regional NSW. In addition, data centres allow us to retain more control over our sovereign data and keep it subject to the laws and governance structures of the country where it is physically stored. Data centres rely on, and will support, the energy transition. They will also increase the supply of rainfall-independent water.

To capitalise on these benefits, the NSW Government has developed these Data Centre Guidelines (Guidelines) that articulate the Government's support and expectations for expediting productive investments in NSW, while managing the resource needs and environmental impacts of growth in data centre activity.

The Guidelines have been built on principles set out in the NSW Data Centre Consultation Paper, informed by feedback from a wide range of stakeholders, and experiences in other jurisdictions.[1] The Guidelines establish a set of six principles outlining the outcomes sought. They are also consistent with the Australian Government's Expectations of Data Centre and AI Infrastructure Developers (Australian Government Expectations) published in March 2026.[2]

These Guidelines are designed to offer greater certainty around data centre development and investment in NSW and lead to a more predictable, transparent, and efficient assessment process. They are also premised on a shared role in creating resource certainty for that investment and critically, the community. The Guidelines promote the use of commercial agreements for cost recovery, while regulatory reform is pursued.

Data centres are the backbone of our economy's exponential digital growth, which provides unprecedented opportunities for industry creation and jobs. NSW is an appealing location for data centre development. However, this is an industry that moves at a speed of decision making that is different to other infrastructure classes, which means their investment decisions are easily transferred to other regions.

If we are to grasp this opportunity, we need an assessment process that is as efficient as it can be, while providing confidence through high standards in environmental planning and community consultation. As such, the NSW Government is introducing measures to support efficient outcomes for proponents of world-class data centres seeking to invest in NSW. Data centre operators also agree that it is in their best interests to minimise energy and water use and operate as efficiently as possible. The Guidelines will support the assessment of data centre applications in NSW.

A common theme in the principles is the importance of appropriate site selection. Consultation feedback identifies there are fewer complexities when data centres locate in brownfield sites with energy and water infrastructure capacity that are away from sensitive areas like homes and schools, rather than around dense urban populations.

Data centre proponents should consider these Guidelines in preparing applications they may wish to submit to the NSW Government.

Early engagement with the Department of Planning, Housing and Infrastructure (DPHI) during site selection and initial design development and meeting the performance measures outlined in these Guidelines will support faster and easier planning assessments.

The NSW Government will review these Guidelines annually or as required to respond to any material changes in the data centre operating environment, including to capture improvements in efficiency, to ensure they remain fit for purpose.

1 NSW Government, NSW Data Centre Consultation Paper, 2026.
2 Australian Government Department of Industry, Science and Resources, Expectations of data centres and AI infrastructure developers, 2026.

2 Data centre investment, operation and resource use in NSW

In support of these Guidelines, the table below sets out background information on data centre investment, operations and resource use in NSW.

Table 1 | Impact of data centre investment, operations and resource use in NSW

Area	Impact of data centre investment, operations and resource use in NSW
Forecast energy and water demand from data centres	Energy and water demand projections from data centres vary significantly between regulators, utilities and the data centre industry. However, all stakeholders agree that there is a significant share of 'phantom' and speculative demand in the pipeline. The Australian Energy Market Operator (AEMO) forecasts that energy consumption from data centres will double from 5% of NSW's grid-supplied energy in 2026 to 11% by 2030.[3] This growth is forecast during the same timeframe that around 7 gigawatts (GW) of coal-fired generation is scheduled to retire in NSW. Oxford Economics, which prepared AEMO's forecast on data centres, estimates 6 in every 7 megawatts (MW) of data centre connection requests are phantom demand.[4] Consultation with energy utilities suggests 20% of data centre applications in their connections pipeline are likely to proceed. While these figures differ slightly, they highlight that the share of data centre proposals likely to proceed to construction is low. Water demand is also expected to rise in the coming decade, but the extent of this increase is uncertain. There is agreement that modelling approaches between the water and energy sectors need to be aligned, including in relation to ramp up periods and phantom demand. Most investors in data centre development also have targets to reach net zero emissions for their operations by 2030 or 2035. This implies that there is an opportunity to collaborate with industry to increase the supply of renewable energy and lower carbon emissions.
Regulatory systems provide consumer and broader protections	There are various regulatory checks and balances in place to manage impacts to energy and water supply and prices. In the energy sector, the Australian Energy Regulator (AER) assesses network investments for prudence and efficiency, AEMO monitors power system security, and the Australian Energy Market Commission (AEMC) sets the National Electricity, Gas and Retail Rules. For water, the Independent Pricing and Regulatory Tribunal of NSW (IPART) regulates consumer pricing for water, and utilities are bound by service-level commitments to all their customers. Additionally, the NSW Department of Climate Change, Energy, the Environment and Water leads NSW Government energy and water policy development. The NSW planning and environmental regulations also ensure that land use and environmental outcomes, and utility connections are met prior to proponents proceeding with construction and operation. Despite this, there is broad acknowledgement that current regulatory frameworks are not fit for purpose to manage the impacts of rapid data centre growth or to provide certainty to the sector.

3 Australian Energy Market Operator (AEMO), 2025–26 inputs, assumptions and scenarios, AEMO, 2025.
4 Oxford Economics, Estimating Data Centre 'Phantom Demand', Oxford Economics, 2025.

Area	Impact of data centre investment, operations and resource use in NSW
Existing and proposed data centres in NSW	The best and most recent estimate suggests there are around 60 data centres operating in NSW, once double counting associated with projects developed through multiple stages is accounted for. As of July 2026, there are 19 projects in the State Significant Development (SSD) planning pipeline valued at $50.3 billion.
Power Purchase Agreements	As of February 2026, over half of the proposed projects in the planning system had committed to some form of Power Purchase Agreement (PPA) or longer-term renewable energy sourcing. Well-structured PPAs can support the financial viability of new renewable energy and firming assets. PPAs to date largely skew to solar projects, not the new wind, storage and other firming assets needed for grid stability in NSW. Industry and NSW Government agree that PPAs should drive investment in NSW projects and are a key implementation mechanism to achieve this. Between March 2023 and May 2026, 49 renewable energy projects received planning approval with 10.2 GW of new generation capacity and over 30 GWh of new storage capacity. This highlights the scale of the investment pipeline and the significant opportunity for PPAs to support the delivery of new generation and storage.
Power and Water Usage Effectiveness	Data centres are incentivised to be energy and water efficient to save operating costs and maximise site IT load. Recent SSD projects' Environmental Impact Statements address Power Usage Effectiveness (PUE), which typically range between 1.15 and 1.4, averaging 1.3. The most recent planning application requirements specify a PUE of 1.3. While planning application requirements do not currently specify Water Usage Effectiveness (WUE), recent analysis shows 9 out of 12 proposed projects had an average WUE of 1.0.
Diesel generators	Though used infrequently, the scale of diesel generators being installed in Sydney is significant, with the largest data centres having comparable generator capacity to NSW's larger gas power plants. Current regulations allow data centres to use generators for up to 200 hours a year without being subject to any point source emission limits for oxides of nitrogen, and planning consents may impose restrictions on the number of generators that can operate at a given time outside emergency situations.

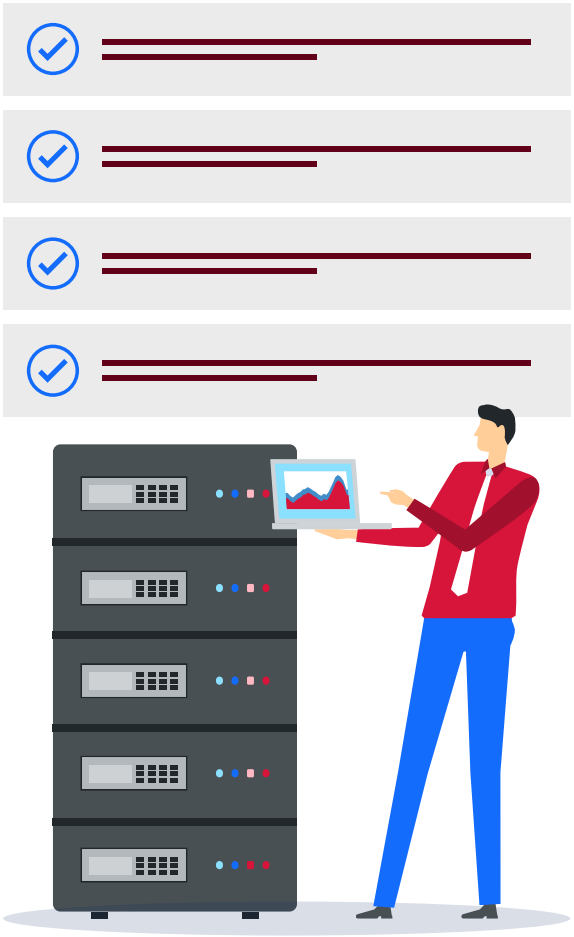
3 Speed to market and efficient planning outcomes for data centre investors

These Guidelines are designed to deliver efficient planning outcomes for world-class projects implementing the practices articulated in Section 4 below. In particular, for projects that address the principles set out in Section 4 of these Guidelines, the NSW Government is:

- Creating a concierge function within DPHI, working with the planning assessment team, that understands data centre technologies and needs, and regularly and proactively engages with data centre proponents to provide updates and troubleshoot issues in the assessment process.
- Introducing pre-assessment proponent support, which will commence discussions with data centre proponents before assessment and before a site has been selected. This service will advise on issues including, but not limited to, the critical issue of site selection, key issues to focus on, suggest amendments, and identify other key parties to engage before the submission of a request for Secretary's Environmental Assessment Requirements (SEARs). It will also provide advice on what to expect in the assessment process and how to navigate it.
- Committing to the provision of SEARs within two months and ensuring that SEARs are proportional to the assessment rather than a generalised list.
- Committing to the development application assessment process taking no longer than 75 days in state government hands.[5]
- Dedicating post-consent staff specifically for data centres within the established dedicated assessment team.

Applicants submitting data centre applications will need to demonstrate whether they comply with the Guidelines in their assessments. Conditions will then require applicants to meet obligations, mitigation measures and commitments outlined in their Environmental Impact Statement. Compliance will be monitored in line with existing DPHI compliance practices and programs.[6]

DPHI sets a high bar and clear expectations for engagement with local communities on SSD projects, and these will be strengthened through further refinement and engagement.



5 Calculated in accordance with DPHI key performance indicators.

6 Further conditions are also included in data centre consents that require applicants to monitor compliance against approvals as part of annual reviews, Independent Audits and in other periodic reporting requirements.

4 Principles and performance measures

This section outlines the six principles underpinning the Guidelines and the supporting performance measures associated with each principle. The principles are that data centre developments should:

- **Principle 1** – Apply world-class environmental and efficiency standards
- **Principle 2** – Impose no net cost to consumers and communities
- **Principle 3** – Fund additional supply of water and energy
- **Principle 4** – Enhance local community infrastructure and amenity
- **Principle 5** – Invest in future industries across the supply chain
- **Principle 6** – Demonstrate a commitment to training and skills to support jobs

Principle 1 – Apply world-class environmental and efficiency standards

The NSW Government expects data centres to use energy and water resources efficiently and minimise impacts on the environment, in line with the Australian Government Expectations.

Energy and Water

Energy is a key input into data centre operations. It powers the technology that processes and stores the gigabytes of data we use every day. For that reason, data centre operators agree that it is in their business interests to use energy as efficiently as possible. Further, many of their investors premise their investment on the goal of data centres making annual progress towards drawing power from renewable sources only.

Similarly, data centres also use water to cool their infrastructure – preventing the servers from overheating and keeping our information safe. Typically, data centres that use less water use more energy and vice versa. There are some data centres that use closed-loop water systems, which require almost no water replenishment and mitigate risks to business operations from water restrictions in times of drought.

To operate efficiently and increase the amount of data they can process and store, data centres must innovate to improve water and energy efficiencies over time. However, there is still an overall increase in energy and water use to operate the growing number of data centres, even as they contribute to the construction of infrastructure for additional corresponding energy and water supply.

The environmental and efficiency measures presented below are designed to assist data centre proponents to develop applications and retain community confidence that the state's resources are being used efficiently to deliver new and existing services, and risks to state energy and water reliability and security are being managed.

The measures draw on other jurisdictions' experience, to avoid problems that occurred when the data centre industry was nascent. They are also informed by evidence from past reporting by data centres in NSW. Many jurisdictions have introduced environmental and efficiency standards that apply to data centres, such as air pollutant limits for diesel generators in the San Francisco Bay Area and Virginia in the US,[7] the EU Energy Efficiency Directive,[8] and the Singapore Green Data Centre Standard.[9]

Data centres should seek to be as water-efficient as possible. If water is required for cooling, recycled water should be prioritised.[10] This will help to shift data centre demand away from drinking water and will encourage data centre operators to support investment in new rainfall-independent water supply. Planning for recycled water requires early engagement with the relevant water utility, as access to existing and future recycled water network connections is likely to depend on a data centre's location.

7 Both jurisdictions require diesel standby generators used for data centres to meet the US EPA Tier 4 standard.
8 Mandates sustainability reporting and energy performance standards for data centres.
9 Singapore Standard 564 defines recommended performance metrics and a set of best practices for energy efficiency in data centres.
10 Recycled water includes that provided by recycled water networks or on-site water treatment, such as from captured stormwater.

Diesel Generators

Diesel generators are installed for data centres to provide back-up power supply in the event of a power outage. They do not run regularly, with most used only to maintain them in operating condition. However, if diesel generators are required to run for any extended period, they can present air quality challenges, particularly where there is a cluster of data centres. In line with all development proposals, data centres need to demonstrate that ambient air health-based criteria are met, other than during emergencies, with consideration of proximity to community members.

Diesel back-up generators using best available technology can have lower air emissions and health impacts, as can locating generators away from communities.

Other environmental matters

There are also opportunities to improve circular economy, e-waste and other sustainability outcomes through application of sustainability rating schemes, carbon measurement frameworks and other targeted measures. Data centre operators are already adopting these measures, such as Amazon Web Services' established circular economy practices to minimise e-waste and other materials[11] and Equinix's Global Circularity Program.[12] The Green Building Council of Australia and Data Centres Australia have also announced their Sustainable Data Centres program to explore best practice sustainability outcomes across design, construction and operation.

Table 2 | Principle 1 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
1	**Design for Power Usage Effectiveness (dPUE) and Water Usage Effectiveness (dWUE) targets within the following ranges:** **dPUE ≤ 1.25 and dWUE ≤ 1.0 (potable water) or dWUE ≤ 1.6 (non-potable water)[13]** **or** **dPUE ≤ 1.3 and dWUE ≤ 0.44** **Designs are to be based on climate data representing average annualised conditions and mature data centre utilisation (assuming 100% IT load).[14]**	The proposed metrics are consistent with the most recent planning requirements, which already specify a PUE of 1.3. They demonstrate efficient use of power and water to support social licence, while considering trade-offs between the use of these resources.	The Climate Neutral Data Centre Pact (EU) provides the following: • PUE for new data centres in cool climates ≤1.3 • target PUE for warm climates is ≤1.4 • WUE target for high water stress regions in hot climates using potable water of ≤0.44. The latest round of electricity capacity released to 'best-in-class' data centres in Singapore has required a PUE of ≤1.25 at 100% IT load.[15]

11 Amazon Web Services, AWS Sustainable Infrastructure, accessed 22 May 2026.

12 Equinix, Sustainability Report 2025, Equinix, 2025.

13 Unless otherwise agreed with the water utility. Such agreements may include water positive initiatives such as enhanced water conservation or reduction programs to offset any additional water use above the standards.

14 PUE is to be measured in line with ISO/IEC 30134-2:2026, and WUE is to be measured in line with ISO/IEC 30134-9:2022.

15 Infocomm Media Development Authority, Launch of second data centre – Call for application, Singapore Government, 2025.

Ref	Performance measure	Purpose	Interjurisdictional reference
2	**Data centres using water-intensive cooling systems will use recycled water for 100% of their cooling operations or have clear agreement in place with their water utility for the transition to rainfall-independent water. It is understood that while that transition occurs, data centres will rely on potable water.** **To meet this measure, there must be no adverse impact on agricultural water use in agricultural areas.** **Water-intensive cooling systems are considered to include evaporative and adiabatic cooling systems, or any other 'open-loop' water-based cooling technology.**	Prioritise potable water supplies for household consumption, recognising that transitioning to recycled water takes time. Utilising recycled water sources will also reduce demand on the ocean outfall network, delaying the need to pay for costly upgrades of coastal wastewater treatment plants and ocean outfalls. Even without the growth of data centres, these upgrades will be required in the future.	California sets an expectation for all industrial water users that potable water use, where supply of recycled water is available, is deemed an 'unreasonable use of water', providing the state with the power to compel industrial water users to adopt recycled water use or cease use of potable water supply.[16] The Climate Neutral Data Centre Pact advocates for less stringent targets if using greywater, which is reflected in performance measure 1.
3	**Data centres using potable water as an interim measure while waiting for recycled water access, will design their facilities to allow for reduced water use in the event of water restrictions imposed in response to a drought: e.g. by adopting hybrid-cooling systems that allow minimal water use in drought events.**	Drought is a recurring feature of our climate. This measure aligns data centre water use with expectations of other industrial and household water users.	In Arizona, where water scarcity is common across catchment areas, large industrial water users are required to submit a plan to the Arizona Department of Water Resources that outlines how they will improve the efficiency of water use at the facility, and how they meet their industrial conservation requirements to: • avoid waste and make diligent efforts to recycle water • avoid single pass cooling • use low flow fixtures • use low water plants where feasible.[17]

16 State of California, Water Code section 113550, California Codes, updated 1 January 2015.

17 State of Arizona, Industrial Conservation Programs – Industrial Conservation Requirements, Arizona Department of Water Resources, accessed 27 July 2026.

Ref	Performance measure	Purpose	Interjurisdictional reference
4	**Demonstrate ambient air health-based criteria[18] and meet the following NSW Clean Air Regulation[19] 'Group 6' air pollutant limits for 'stationary reciprocating internal combustion engines' (diesel back-up generators):** • **Nitrogen oxides (450 mg/m^3)** • **Solid particles (50 mg/m^3)** • **Volatile organic compounds (1,140 mg/m^3)** • **Carbon monoxide (5,880 mg/m^3).** **For example, this could be achieved through generator sets with Selective Catalytic Reduction (SCR) filters.** **The Group 6 air pollutant limits apply regardless of operating hours and whether the facility has an Environment Protection Licence.** **Data centres located outside metropolitan cities and regional towns[20] and away from sensitive receivers, for example on retired power station and mine sites, can meet lower US EPA Tier 2 pollutant limits for 'nonroad compression-ignition engines':[21]** • **Nitrogen oxides and non-methane hydrocarbons (6.4 g/kW-hr)** • **Carbon monoxide (3.5 g/kW-hr)** • **Particulate matter (0.20 g/kW-hr).** **Data centres using the US EPA Tier 2 limits will need to demonstrate limited impact on the community through air quality impact assessments.**	Even when used infrequently, diesel back-up generators used by data centres can have air quality and human health impacts when located in proximity to residential communities, especially in areas with existing high levels of pollution.	The Bay Area Air Quality Management District and Virginia Department of Environmental Quality have both introduced more stringent requirements with generators permitted in the highly urbanised Bay Area[22] and Virginia[23] needing to meet the US EPA Tier 4 standard. Introducing more stringent requirements reflects the close relationship between data centres and local communities in densely populated areas. The Victorian EPA Application Technical Information Requirements for Data Centres require that data centres demonstrate consideration of best available technologies, including US EPA Tier 4 generators, prohibiting non-emergency use, and monitoring in operation.

18 Through site specific air quality impact assessment considering all planned and reasonably foreseeable scenarios where diesel generators are proposed to operate. This includes routine testing and maintenance.

19 Protection of the Environment Operations (Clean Air) Regulation 2022.

20 This measure is intended to address urban areas, which are defined as metropolitan cities and regional towns where sensitive receivers are clustered, and includes the entirety of the Sydney region. Sydney region is defined in the Sydney Plan and will eventually be declared via a Ministerial Order.

21 US Environmental Protection Agency 40 CFR Part 1039, Table 2 to Appendix I. Tier 2 emission standards listed apply to diesel generators with rated power ≥560kW.

22 Bay Area Air Quality Management District, Engine permits, Best Available Control Technology (BACT) IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump, Document 96.1.5 Revision 0, 22/12/2020.

23 Viginia Department of Environmental Quality, Issued Air Permits for Data Centers refer to revised guidance document APG-576 effective April 9, 2026.

Ref	Performance measure	Purpose	Interjurisdictional reference
5	**Prepare a quantitative noise and vibration impact assessment (construction and operation) undertaken by a suitably qualified acoustic consultant in accordance with the relevant NSW Environment Protection Authority guidelines and Australian Standards.**	The noise impacts from data centre construction and operation need to be assessed and managed carefully on a site-specific basis. Active management will avoid impacts on nearby sensitive receivers.	Noise and vibration impacts on sensitive receivers are considered and managed in the planning approvals process or in planning permit conditions in other Australian states.[24] In the UK, the National Planning Policy Framework (NPPF) requires new developments to avoid noise that could adversely impact health and quality of life.[25]
6	**Demonstrate appropriate management and controls for fire and explosion risks in accordance with guidance from Fire and Rescue NSW[26] and SafeWork NSW.[27] Data centre applications should manage risks related to their operations, with consideration of the increased risk associated with large volumes of diesel fuel stored on site, lithium-ion batteries, and complex electrical work.**	The fire and explosion risks associated with the storage and handling of large volumes of diesel fuel, and the presence of lithium-ion battery units, should be carefully assessed and managed on a site-specific basis. Effective identification and mitigation of these risks through appropriate design and operational controls will reduce the likelihood and potential consequences of major incidents.	The fire risks associated with large quantities of diesel fuel and lithium-ion batteries are managed in other jurisdictions through layered major hazard and risk assessment frameworks. The UK Government encourages early engagement with fire and rescue services as part of planning for battery energy storage systems.[28] The European Union's Seveso III Directive requires facilities storing large quantities of dangerous substances to identify and manage major accident hazards, including through risk assessments, emergency planning and consideration of surrounding land uses.[29]

24 Victoria EPA, Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues, Publication 1826.5, EPA, Published 5 September 2025.

25 UK Government, National Planning Policy Framework, Ministry of Housing, Communities & Local Government, Published 27 March 2012.

26 Applications should consider design and risk management in alignment with the Fire and Rescue NSW Position Statement Summary for Lithium-ion batteries and diesel generators in data centre. Fire Safety Studies should be undertaken as directed by consent conditions or as requested by Fire and Rescue NSW. Note that DPHI requires a Preliminary Hazard Analysis at pre-approval and a Fire Safety Study at post-approval to consider fire risk for battery storage systems of 30 MW and above.

27 Comply with the NSW Work Health and Safety Act 2011, associated Regulations (2025) and relevant Codes of Practice.

28 For applicants seeking planning permission for battery energy systems over 1 MWh, to manage potential risks.

29 European Parliament and Council of the European Union, Directive 2012/18/EU (Seveso III) on the control of major-accident hazards involving dangerous substances, Official Journal of the European Union, Published 24 July 2012.

Ref	Performance measure	Purpose	Interjurisdictional reference
7	**Data centre applications should provide maximum water demand, average water usage, maximum energy demand and average energy usage forecast data through the planning process. It is recognised that this information is commercially sensitive so it should be provided on a commercial-in-confidence basis.**	This information allows utility providers to better plan for future infrastructure needs. Water demand data should be collected at a similar level of detail to current reporting on energy requirements.	The German Energy Efficiency Act 2023 requires a range of metrics, including energy and water use, and how information is stored and processed.[30] The Australian Government requires that data centres owned or leased by the Commonwealth maintain a 5-star NABERS energy rating, which includes requirements to disclose energy consumption during the rating period.[31] The US state of Minnesota has introduced legislative requirements for BREEAM or LEED sustainability ratings in new data centre construction, involving forecasting and reporting on energy and water use.[32]
8	**Install smart energy and water meters that meet relevant utility providers' specifications and support the provision of data for infrastructure planning by the NSW Government.**	Installation and use of smart meters allows for better data on usage patterns and facilitates infrastructure planning.	Required under the Best Practice Guidelines (2025) for the EU Code of Conduct on Data Centre Efficiency. Similarly, Singapore requires sites with water consumption ≥60,000m^3 to install digital water meters to be certified through the Green Mark for Data Centres. The rating system awards points to incentivise digital reporting systems and real-time asset monitoring.[33] In Singapore's latest release of electricity capacity to new data centre development, Green Mark ratings were set as a requirement.[34]

30 Federal Office for Economic Affairs and Energy, German Energy Efficiency Act, Federal Government of Germany, 2024.
31 Australian Government, Net Zero in Government Operations Strategy, Department of Finance, 2023.
32 Minnesota Legislature, HF 16 amendment to Sec. 4. Minnesota Statutes 2024, section 103G.271, 2025.
33 Building and Construction Authority, Green Mark for Data Centres, Singapore Government, 2024.
34 Infocomm Media Development Authority, Launch of second data centre – Call for application, Singapore Government, 2025.

Principle 2 – Impose no net cost to consumers and communities

Well-planned data centre site selection has the potential to benefit NSW residents by reducing power bills.

Consumer electricity bills could potentially be reduced when data centre development occurs in parts of the energy network with spare capacity, such as at former coal-fired power station sites. This is because the additional demand pays for assets that are running below their potential output. In contrast, additional demand in highly congested parts of the network is likely to require significant infrastructure upgrades, adding to costs.

This principle also applies to water infrastructure, where servicing costs are higher in locations further from water infrastructure, requiring more extensive pipes.

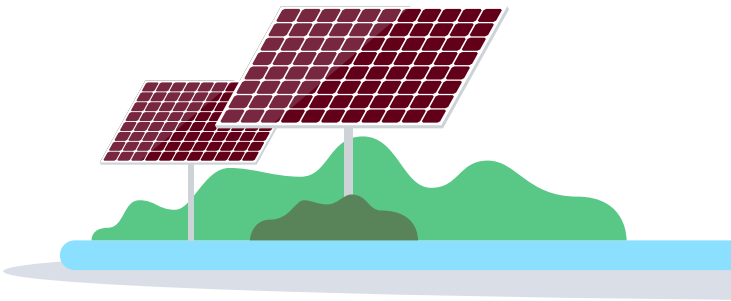
Sydney requires many transmission upgrades to meet its growing energy needs. The emergence of large-scale data centres in metropolitan areas adds to that energy demand and brings forward the need for investment in the energy system, to which data centres are prepared to contribute. In contrast, data centres located close to energy generation, such as in the Renewable Energy Zones (REZs) are likely to require fewer infrastructure upgrades to meet their needs.

Regulatory change is required in both the energy and water sectors to ensure best practice cost recovery. The NSW Government is engaged with IPART to address the regulatory barriers to cost recovery for water infrastructure augmentations, and to address stranded asset risk. Similarly, proposed amendments to the Electricity Infrastructure Investment Act 2020 will allow for new regulations to address cost recovery for energy infrastructure.[35]

The agreements between data centres and energy and water utilities can also help protect the wider customer base from the risk of stranded assets. These agreements could include revenue security mechanisms like prepayments, upfront capital contributions, or financial guarantees.

Reducing the level of demand that new data centres place on the electricity grid at times of peak use or low generation will also limit bill impacts by mitigating wholesale energy price impacts.[36] Data centres managing their grid-connected energy consumption during peak use or low generation periods will also support a resilient and reliable grid, such as AirTrunk's development of co-located batteries to support its Western Sydney campus.[37]

Similar 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)[38] and the US, where there is an expectation that data centres support a more reliable grid.[39] Some established data centres in NSW have used diesel generators for this purpose in the past, taking load off the grid at peak times. For these centres, opportunities for battery storage are often limited by land availability in metropolitan areas. However, use of diesel generators for this practice is not supported.



35 See NSW Data Centre Consultation Paper, 2026 for a detailed discussion of gaps in cost recovery frameworks and associated regulatory matters for water and energy infrastructure.

36 CEFC, 'Getting the balance right: data centre growth and the energy transition', Baringa, 2025. The Energy and Climate Change Ministerial Council is also considering demand flexibility and additional renewable energy and firming as part of the national governance framework. See Energy and Climate Change Ministerial Council Meeting Communique, 8 May 2026.

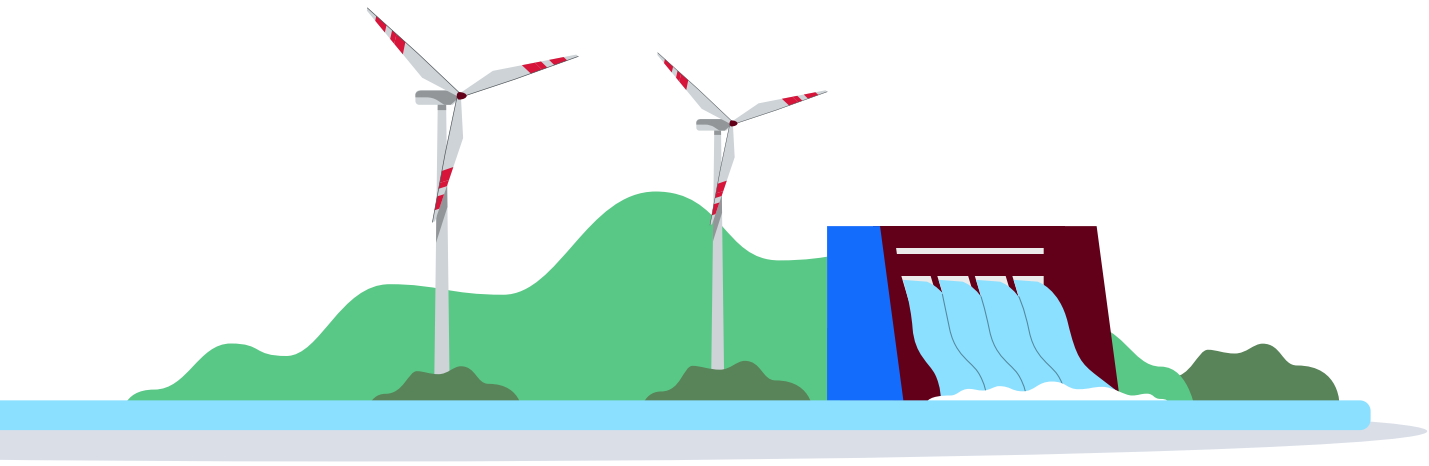
37 The Energy, AirTrunk stands ready to 'flex' and invest in the grid, published 1 May 2026.

38 Commission for Regulation of Utilities, The CRU Publishes its Decision on New Electricity Connection Policy for Data Centres, 2026.

39 The White House, Ratepayer Protection Pledge Proclamation, 2026.

Table 3 | Principle 2 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
9	**Demonstrate ability to reduce grid-supplied electricity demand by 25% of the data centre forecast average load for up to a 2-hour period, using the following hierarchy:** **1. Where possible, load shifting e.g. curtailing ancillary loads, using thermal storage to shift air conditioning loads, or scheduling programmable compute tasks outside of peak periods.** **2. On-site or proximate renewable generation and storage (e.g. battery storage or use of Virtual Power Plants).** **Data centres must agree the applicable notice period for reducing grid demand with the relevant electricity utility. AEMO may also instruct data centres to reduce grid demand in accordance with the relevant notice period.** **Other innovations to achieve this purpose will be considered. However, this measure cannot be met by using diesel back-up generators.**	Reducing demand in peak demand and low generation periods will significantly mitigate potential electricity price increases from data centres.[40] This can also materially reduce the extent of upstream infrastructure upgrades required.	Ireland's Large Energy Users Connection Policy requires data centres >10MVA to provide dispatchable on-site or proximate generation/ storage which meets their peak demand. The US Ratepayer Pledge has set a national commitment to require data centres to fund new sources of power supply that offsets their needs and can serve the broader network. US states like Texas have introduced regulatory frameworks to apply the pledge. The Medium Combustion Plant Directive in the UK explicitly excludes diesel generators from demand side response operations.



40 CEFC, 'Getting the balance right: data centre growth and the energy transition', Baringa, 2025. The Energy and Climate Change Ministerial Council is also considering demand flexibility and additional renewable energy and firming as part of the national governance framework. See Energy and Climate Change Ministerial Council Meeting Communique, 8 May 2026.

Ref	Performance measure	Purpose	Interjurisdictional reference
10	**Enter commercial arrangements with energy utilities that protect the wider customer base from the possibility of assets built for data centres becoming stranded. A stranded utility asset is infrastructure or equipment that is no longer financially viable or needed.** **These commercial arrangements will operate to the extent permitted by the regulatory framework. This can include committing to revenue security mechanisms like prepayments, take or pay arrangements, upfront capital contributions, or financial guarantees.** **Data centres that locate outside the Sydney Ring are expected to have smaller contribution obligations due to greater grid capacity in many locations, reducing the need for upstream infrastructure upgrades.**	To ensure infrastructure upgrades required as a result of data centre demand are paid for by data centre proponents. Note this is an interim step as regulatory regimes are updated.	The US State of Texas passed Texas Senate Bill 6 (SB6) (June 2025), introducing significant changes to the allocation method for transmission costs. Requiring large-load customers, including data centres, to contribute to the costs of connecting to the electricity grid. The Public Utility Commission of Texas has also been tasked with evaluating the cost allocation method, four coincident peak (4CP), which sees costs spread across residential, commercial and industrial users.[41] Similar initiatives have been implemented in Ireland and Malaysia to address future electricity constraints and reduce the impact of high electricity use on other connected customers.[42]
11	**Secure an agreement with a water utility that protects the wider consumer base from infrastructure costs associated with servicing data centres that use water for cooling or open-loop systems. This could include take or pay contracts, greater forward capital funding of infrastructure, and pricing aligned to service levels.**	To ensure consumer utility bills and water services are not impacted by increased data centre demand and their higher service levels. Note this measure is proposed as an interim step while IPART conducts a review into water pricing for data centres.	Legislation introduced in Florida, prohibits utility providers from passing the costs of servicing data centres onto consumers.[43] Similarly, it provides requirements for public disclosure of deals signed between data centres and utility providers to provide transparency over resource use.

41 C Hao, 'Texas needs up to $33 billion in new, improved power lines. Who should foot the bill?', Houston Chronicle, 6 February 2025 accessed 9 July 2025; W Berg & B Clark, 'Texas Senate Bill 6 Ushers in Major Overhaul of Large Load Interconnection and Grid Access Rules', The National Law Review, 9 July 2025, accessed 10 July 2025.

42 Commission for Regulation of Utilities (CRU), 'Review of Large Energy Users Connection Policy' 2025; Suruhanjaya Tenaga Energy Commission, 'Guidelines on Green Electricity Tariff', 2025; Malaysian Investment Development Authority, 'Government commits to renewable energy growth as data centres multiply in Malaysia', The Star, 17 February 2025, accessed 22 May 2026.

43 Florida Senate, CS/CS/SB 484: Data Centers, passed 8 May 2026.

Ref	Performance measure	Purpose	Interjurisdictional reference
12	**Data centres should engage early with telecommunication and optical fibre providers to plan their infrastructure requirements, including opportunities to align with a common bank of underground conduits to minimise local amenity impacts.**	A forward-planning approach to siting and ongoing management of the optical fibre network and associated infrastructure will minimise disruption to local infrastructure and amenity.	Developed in response to industry and council consultation feedback.

Principle 3 – Fund additional supply of water and energy

The significant growth in energy and water demand from data centres presents an opportunity to support new renewable energy generation and storage capacity and rainfall-independent water supply in NSW. There is no other industrial user capable of supporting these priorities in the state on the scale that data centre investment can. Further, supporting additional supply aligned with rising demand will be essential for mitigating potential bill impacts and is consistent with the Australian Government Expectations.[44]

A reliable energy system requires a broad range of energy sources. Solar typically generates energy during peak daylight hours, while wind can provide a more stable output addressing evening peaks. With rooftop solar penetration in urban areas greater than anticipated, more wind generation is needed in NSW.

In addition to the volume of approved (10 GW) and proposed (41 GW) renewable energy projects across the state, more grid-scale storage is needed to support these levels of generation and to provide for greater energy reliability. NSW already has a significant volume of storage approved and under development, which includes over 30 GWh of energy storage capacity approved since March 2023. Battery storage is critical and the state expects data centre proponents to include this in their applications. Pumped hydro will also play a critical role in providing necessary electricity firming, and delivering supply for longer periods than traditional lithium-ion battery storage.

Additional useable water will improve water security and ensure water demand from data centres does not exacerbate existing water issues, particularly in Greater Sydney or drought-prone areas. In the past two decades, events such as the Millennium Drought (2001–2009) and the severe drought of 2017–2020 pushed many water storages to record lows and triggered widespread emergency measures. In this environment, it is important that potable water supplies are preserved for the community and data centres incorporate water-efficient design, and use recycled water where it is available or implement offset measures where it is not.

44 CEFC, 'Getting the balance right: data centre growth and the energy transition', Baringa, 2025; Australian Government Department of Industry, Science and Resources, Expectations of data centres and AI infrastructure developers, 2026.

Table 4 | Principle 3 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
13	**Enter into PPAs and firming agreements for additional renewable energy generation assets in NSW to meet data centre electricity demand (MWh), and the following:** **a) a minimum 40% wind generation component (MWh)** **b) storage capacity (battery or pumped hydro) of at least 25% of generation capacity (MW) for a duration of four hours, which can be part of hybrid assets or separate from generation** **c) from the data centre's fourth year of operation, contracted energy supply is equal to the data centre's annual average energy demand,[45] and that energy supply increases over time in line with ramp up in operations** **d) agreements have a duration of at least ten years** **e) agreements are for energy projects, including expansions of existing assets, that have not reached Final Investment Decision (FID) at the time of contracting** **f) agreements can be entered into on a portfolio basis or contracted to specific data centres, provided the data centre demand is met** **g) for co-location providers, commitments can be demonstrated through a combination of operator and/or major tenant agreements.** **Note on-site or proximate storage provided for demand flexibility can be counted towards the fulfilment of this measure.[46]** **In addition to the planning system, consideration will be given to implementing this measure via network connections or potential future access arrangements.**	To limit bill impacts from data centre energy demand and contribute to energy system reliability. For specific elements: a & b) to achieve a diverse mix of generation assets to minimise bill impacts c) allowing time for new generation assets to be built and capital investment staged in line with demand d) providing certainty needed for generators to reach FID e) ensuring 'additional' assets that increase energy supply f & g) allowing flexibility for different tenant and landlord energy procurement arrangements.	The US has introduced the Ratepayer Protection Pledge, which sets an expectation that data centres fund the cost of new electricity generation and transmission assets required to power their operations.[47] German Energy Efficiency Act 2023 mandates a Renewable Energy Factor ≥50%, increasing to 100% by 2027 for new data centres.[48]
14	**If recycled water is not available, proponents must negotiate a plan with their utility to fully offset their interim use of potable drinking water supplies, either through funding agreements to contribute to additional supply or through water efficiency programs or alternatively closed-loop systems.**	In the near-term, data centres' relatively fast connection timeframes mean they are likely to use the capacity of infrastructure being built to service future demand from other customers, such as households. This measure encourages data centres to use closed-loop cooling systems to minimise water consumption or to contribute towards the cost of the water supply they are displacing in the system from the outset.	Addressing gaps identified by the water industry in NSW regulatory frameworks.

45 If a generation project is delayed or cancelled for reasons outside the data centre proponent's control, additional time allowance will be considered. The operator or tenant must still demonstrate efforts to enter into new PPAs if the project is cancelled and purchase REGO certificates or the equivalent as an interim solution. Further short-term periods of mismatch between supply and demand in operation can also be supplemented with REGO certificates or the equivalent. Certificates must meet the minimum wind generation, storage capacity, and location components of this measure.

46 This will be reviewed under the Industry Advisory Forum.

47 The White House, Ratepayer Protection Pledge Proclamation, 2026.

48 Federal Office for Economic Affairs and Energy, German Energy Efficiency Act, Federal Government of Germany, 2024.

Principle 4 – Enhance local community infrastructure and amenity

Data centre proponents have demonstrated a willingness to, and are encouraged to, engage in benefit-sharing with local communities hosting new developments to deepen community wellbeing through mutually agreed opportunities.

For example, principles applied in the renewable energy sector may be relevant to data centre developments and proponents are encouraged to consider these:[49]

1 **Benefit-sharing is standard practice**.

2 **Benefit-sharing is collaborative** and should be designed in partnership with councils. Opportunities to centralise administration should be prioritised to help leverage funds to further enhance community benefits.

3 **Benefit-sharing is transparent** and information on benefit-sharing arrangements should be publicly available, including clear details on the administration and distribution of proceeds.

4 **Benefit-sharing is community focused** and should be informed by consultation with the community or community representatives, tailored to the local context and community's needs.

5 **Benefit-sharing is proportionate** and the distribution of community benefits should reflect the scale of the project and the level of change experienced by the community.

6 **Benefit-sharing delivers a positive outcome** and should have a lasting and meaningful impact on the community and provide tangible social, environmental and economic outcomes.

The Australian Government Expectations include prioritising Australia's national interest, including Australia's national security and data sovereignty. In line with this expectation, data centres are encouraged to prioritise carriage of sovereign data at their facilities.

Given the scale of capital investments associated with data centres, it is expected that some proponents will look for opportunities to enhance community infrastructure and amenity. This is encouraged by Government.

Benefit-sharing arrangements with local communities are matters outside the development assessment process and should not be included in any development application associated with data centres.

Any proposed arrangements would also be separate to obligations under the framework for local and State infrastructure contributions under the Environmental Planning and Assessment Act 1979, which continues to apply to data centre development.

As part of project preparation, SSD data centre proponents should engage with the community as early as possible and throughout the process, and ensure engagement is meaningful and proportionate to the scale and impact of the project.[50]

Table 5 | Principle 4 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
15	**Engage meaningfully with community and council to make sure that the community can participate in the planning and assessment process.**	DPHI and data centre proponents are required to engage with the community, councils and government agencies on State significant projects. This includes First Nations communities. Careful consideration of diverse viewpoints improves planning outcomes and can prevent unintended negative impacts.	Meaningful community consultation is a requirement in the SEARs for SSD projects from the outset of assessment. This requires the proponent to demonstrate how they have undertaken meaningful engagement as well as how this has been reflected in the development proposal.[51]

49 Department of Planning, Housing and Infrastructure, Benefit-Sharing Guideline, NSW Government, 2024.
50 DPHI, Undertaking Engagement Guidelines for State Significant Projects, NSW Government, 2026.
51 DPHI, Undertaking Engagement Guidelines for State Significant Projects, NSW Government, 2026.

Principle 5 – Invest in future industries across the supply chain

NSW currently has over 340,000 tech workers, with this projected to reach approximately 500,000 by 2030.[52] There is strong demand in AI, cybersecurity, and software development. Enhanced technologies are also revolutionising almost all industries from healthcare to finance, construction, retail, remote operations, and film and game production.

Data centres can support NSW businesses to stimulate digital industries, increase productivity and drive broader growth. Data centre investment attracts foreign capital from global technology companies seeking strong and stable economies with reliable and renewable energy. This means more renewable energy generation, new rainfall-independent water supplies and innovation in future technologies, including quantum computing in which NSW is already a leader. We have an opportunity to use this investment to grow future industries where NSW can lead the world:

- remote health services and medical technology bringing specialist care across borders and into regional communities
- pharmaceutical, drug development and biotechnology driving research and innovation in the field
- renewable energy infrastructure driving electrification, expanding our circular economy and supporting the net zero transition
- advanced trades, particularly electricians and boilermakers building the hardware (sensors, controllers, robotics components) that digital industries need
- remote operations for mining and agriculture to further service growing global demand.

The NSW Government encourages data centres to contribute to building local research and technical and innovation capability.

Investment in data centres enables faster and more efficient services for NSW residents. The implementation of the NSW Digital Strategy allows NSW to build on this opportunity to enable new industries.[53] Critically, data centres allow us to develop well-paid jobs tied to high value-added and sustainable industries here in NSW. There are also opportunities for the NSW economy through data centres supporting local supply chains and jobs. Local sourcing of materials also reduces supply chain risks for data centres and can be mutually beneficial for data centres, the local economy and local businesses.

The NSW Government will work with industry to support local content for data centre projects to promote local supply chains and jobs. Industry engagement indicates that many construction materials can already be sourced locally. This includes piles, prefabricated concrete panels, reinforcing mesh, switchboards and copper/fibre cabling.

This principle supports the Australian Government Expectation relating to research, innovation and local capability.

Table 6 | Principle 5 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
16	**Data centres are encouraged to prioritise use of local content where possible and engage with NSW Government on opportunities to support local supply chains.**	Data centres have an opportunity to support local employment and business development in NSW, particularly in domestic manufacturing and construction.	In Victoria, renewable energy projects applying to the Victorian Access Regime have a minimum expectation under the Community Engagement and Social Licence Guidelines to identify opportunities and actively support local suppliers' capacity to participate in the supply chain.[54]

52 Investment NSW, Digital technologies is a NSW focus sector, NSW Government, accessed 22 May 2026.
53 Department of Customer Service, NSW Digital Strategy, Digital NSW, published October 2024.
54 VicGrid, Community Engagement and Social Value Guidelines for Renewable Energy and Transmission Projects, Department of Energy, Environment and Climate Action, published September 2025.

Principle 6 – Demonstrate a commitment to training and skills to support jobs

The expansion of data centre development across the state presents a significant opportunity to harness a wave of investment that can deliver long term, mutually beneficial workforce outcomes.

Realising this potential will require close coordination between industry, government, and unions to make sure that skills development keeps pace with demand and that the benefits are shared across the economy.

Data centres require a highly skilled workforce to construct, operate, and maintain complex assets and build supporting infrastructure. The construction phase alone represents the single largest workforce opportunity, with substantial demand for trades that are also critical to the broader energy system rebuild. This creates complementarity between data centre development and other major drivers of economic growth in the state.

There is an opportunity to leverage this demand to create a sustained pipeline of apprenticeship and traineeship opportunities that can move between projects and across NSW, aligning with the Australian Government Expectation of investment in Australian skills and workforce.

Some data centre operators are already investing in workforce development through in house proprietary training programs like the CDC Academy[55] and partnerships with TAFE NSW, like Microsoft's Datacentre Academy.[56] These early initiatives demonstrate the potential for a more coordinated approach that draws on existing experience to scale skills development across the state.

Supporting associated industries and regional growth

Beyond direct construction and operations roles, data centre development can bring forward essential water and energy infrastructure, creating additional employment opportunities, particularly in Western Sydney, Newcastle, Wollongong, and areas surrounding the REZs.

There is also potential for data centres to support innovation and contribute to the state's creative and cultural industries. As these sectors experience change, data centre-enabled digital infrastructure can underpin new pipelines of creative and technology-driven work.

To make sure these outcomes are realised, data centre developers can work in partnership with unions to drive skills and training growth. This could include:

- adoption of apprenticeship and learning workforce targets
- partnerships with recognised training providers
- bursary and scholarship programs
- new training pathways tailored to the unique skill sets required by the data centre industry.

55 CDC, CDC Academy, accessed 22 May 2026.
56 TAFE NSW, Datacentre Academy, accessed 22 May 2026.

Building a pipeline of skilled workers and apprenticeship opportunities

The Government has identified three broad workforce categories where data centre development can play a significant role:

1 **Construction and Infrastructure Workforce:** The largest opportunity lies in the workforce required to build data centres and associated enabling infrastructure such as water and energy assets. This should be leveraged to create a mobile, state-wide pipeline of apprentices and skilled workers.

2 **Highly Skilled Operational Workforce:** A smaller but highly specialised workforce will be needed to operate data centres, requiring targeted training and industry-specific skill development.

3 **Creative and Innovation Workforce:** Data centres can support future pipelines of work in the creative and digital industries, aligning with the state's creative and vibrancy agenda.

Working with unions, the Government sees an opportunity for industry to take forward:

- a model for skills and training centres of excellence, creating a pipeline of opportunities in the three key workforce streams
- building on existing frameworks, an agreed shared future vision of the local content and procurement requirements for these industries.

These actions will establish a clear and more coordinated approach to workforce development that maximises the economic and social benefits of data centre investment across NSW.

Table 7 | Principle 6 performance measures

Ref	Performance measure	Purpose	Interjurisdictional reference
17	**Demonstrate support for training of workers involved in the construction and operation of data centres in NSW. This can include opportunities for apprenticeships and learning workers, partnerships with recognised training providers such as TAFE NSW, or bursary and scholarship opportunities connected to employment opportunities for successful candidates.**	To ensure data centre projects support training and skills development programs through construction and operation of facilities.	The Victorian Sustainable Data Centre Action Plan calls for data centre developers to partner with TAFEs, and tertiary providers to build a pipeline of skilled workers.[57]

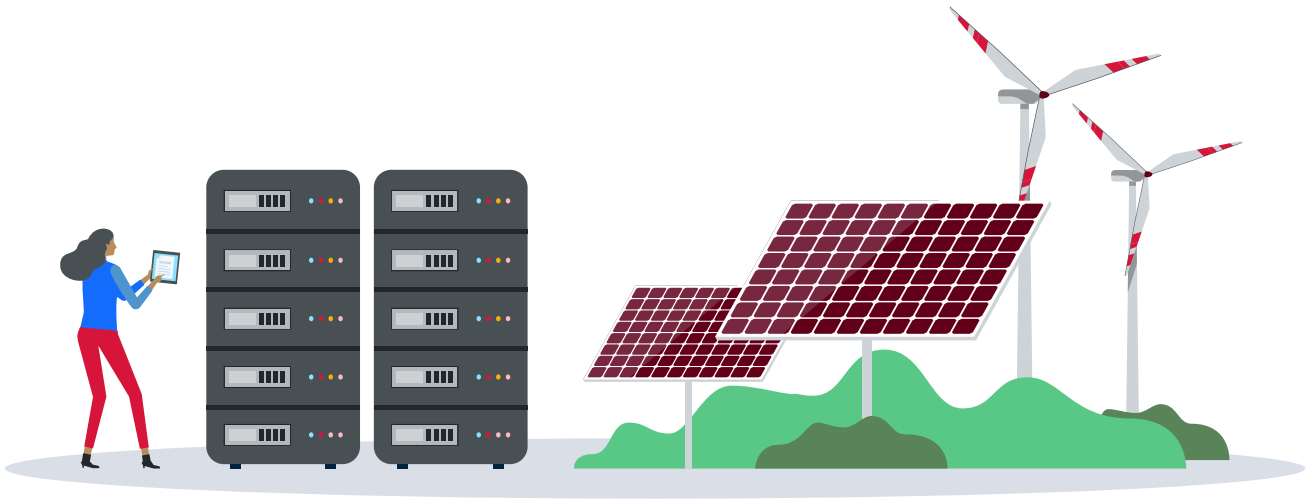
57 Victorian Government, Sustainable Data Centre Action Plan, Department of Jobs, Skills, Industry and Regions, 2026.

5 Future actions and next steps

The NSW Government will establish the Industry Advisory Forum. The ongoing engagement through the Forum will help to ensure policy settings are proportionate and account for evolving technologies and market conditions. The NSW Government will also engage with the Australian Government and other jurisdictions as part of this work to support harmonisation. The Industry Advisory Forum will advise the NSW Government and support the delivery of further enhancements to drive a sustainable and successful data centre industry in our state. More broadly, the NSW Government will:

- consider opportunities to improve efficiency in NSW Government processes
- refine environmental performance standards for the data centre industry
- update water and energy cost recovery frameworks in line with regulatory changes and reviews
- facilitate the matching of wind energy generation and grid-scale storage with customers for offtake agreements
- review the Protection of the Environment Operations Act 1997 framework and supporting regulations to ensure it is fit for purpose for data centre developments
- develop best practice guidance for air quality and noise impact assessments for data centre proponents seeking planning approvals
- investigate options to support future use of renewable fuels in back-up diesel generators and alternative back-up power supply
- develop an agreed approach to forecasting the impacts of data centre demand to inform coordinated infrastructure planning and staged delivery
- develop a model for skills and training centres of excellence
- build on existing frameworks to develop and agree on a shared future vision of the local content and procurement requirements
- implement the statewide Industrial Lands Policy, which when finalised, will set out an evidence-based framework for planning for new industrial land and protecting and intensifying existing industrial land across NSW.

The NSW Government will review these Guidelines annually or as required to respond to any material changes in the data centre operating environment, to ensure they remain fit for purpose.



Appendix A – Glossary

Term	Definition
Ambient air health-based criteria	The *National Environment Protection Measure for Ambient Air* sets national standards (concentration limits) for six key pollutants, including carbon monoxide, ozone, sulphur dioxide, nitrogen dioxide, lead, and particles. Data centres' air quality assessments should demonstrate that these limits will not be exceeded for all planned and reasonably foreseeable scenarios where diesel generators are proposed to operate. This includes routine testing and maintenance, and loss of supply events where AEMO asks data centres to remove load through operation of back-up generators.
'Group 6' air pollutant limits	The *Protection of the Environment Operations (Clean Air) Regulation 2022* (Clean Air Regulation) Group 6 is the key regulatory mechanism in NSW for reducing emissions. It sets air pollutant limits for particles, oxides of nitrogen, volatile organic compounds, and carbon monoxide.
Peak demand management	Peak demand management involves strategies to limit data centres' grid-connected energy consumption during periods of high electricity demand, such as by load-shifting and use of on-site generation or storage.
PUE	Power Usage Effectiveness (PUE) is the ratio of total site energy use to the energy used by IT or data processing hardware and is the most common way of measuring a data centre's energy efficiency. A lower PUE indicates better energy efficiency.
Recycled water	Recycled water includes that provided by recycled water networks or on-site water treatment, such as from captured stormwater.
Sensitive receiver	Refer to the NSW EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (2022), which defines a sensitive receiver as a location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area. Being located one kilometre away from a sensitive receiver is generally acceptable.
Water-intensive cooling system	Water-intensive cooling systems include evaporative and adiabatic cooling systems, or any other 'open-loop' water-based cooling technology.
WUE	Water Usage Effectiveness (WUE) is the ratio of total water consumed by a data centre to the energy consumed by its IT equipment and is the most common way of measuring a data centre's water efficiency. A lower WUE indicates better water efficiency.