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Ms Abigail Boyd MLC, Committee Chair
Public Accountability and Works Committee

Submitted via website portal

Public Accountability and Works Committee Inquiry into Data Centres in NSW – Submission in response to Terms of Reference

Ausgrid, Endeavour Energy and Essential Energy appreciate the opportunity to provide this joint response to the Public Accountability and Works Committee's Inquiry into Data Centres (the **Inquiry**).

NSW distribution network service providers (**DNSPs**) are responsible for the distribution of affordable, safe and reliable electricity to the people of NSW. This includes transporting electricity from transmission networks at lower voltages to end-use customers. Our networks are important economic enablers for metropolitan, regional, rural and remote NSW communities. This is reinforced as Australia's energy system continues to transition from traditional one-way flows to a distributed, digitised system. Collectively we are:

- Ausgrid, which operates a shared electricity network that powers the homes and businesses of more than 4 million people living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter;

- Endeavour Energy, which manages the electricity distribution network servicing 2.8 million people in homes and businesses in Australia's fastest growing regions. These include Sydney's Greater West - which is growing 40 percent faster than Sydney, with rapid population growth and more than $50 billion of infrastructure such as Australia's first new sustainable city in 100 years, and a new international airport - to the Blue Mountains, the Southern Highlands, the Illawarra and South Coast of NSW; and

- Essential Energy, which is the regional DNSP for NSW and manages more than 183,000 km of powerlines, covering 95 per cent of the State servicing 900,000 customers across regional, rural and remote communities.

Data centres are required to support increased use of new technologies such as artificial intelligence and machine learning by businesses and individuals. In this regard, data centres also represent an important economic and digital infrastructure opportunity for NSW, and DNSPs can play a key role in enabling that growth in appropriate locations. Where projects are aligned with network capability, land use planning and other enabling infrastructure, distribution-connected solutions can provide an efficient and scalable pathway for connecting large new loads to the NSW energy system. This is particularly relevant in the context of the broader energy transition, where the transmission system is also undergoing substantial change to accommodate new generation, storage and major network investment.

With coordinated and strategic planning, the increase in data centre connections can help unlock significant economic opportunities for NSW without affecting the affordability and reliability of electricity supply, or efficient land use.

By increasing utilisation of our networks, increased demand from data centres can lower the share of network costs borne by other customers, lowering the network portion of electricity bills. This is due to the fact that network revenues are fixed by the Australian Energy Regulator (AER), so spreading the same amount of revenue across more units of demand lowers average costs for our other customers over time.

The jointly published 2025 Distribution System Plan Opportunities Report outlined opportunities and actions to de-risk the transition to renewable energy and improve customer participation in the energy system, while reducing cost pressure for households and businesses[1]. In it, NSW DNSPs:

- encouraged a more proactive approach to data centre planning (supported by prudent anticipatory investments to deliver network capacity required for this growing demand category); and
- observed that strategic planning and projects to support data centres would encourage connections in locations that work best from a whole-of-system perspective, including potential co-location with distribution-connected generation.

We therefore welcome this Committee's intent that plans for data centre growth are guided by a coherent and integrated strategy that takes into consideration the immediate and long-term impacts of data centres on energy systems, water resources, climate targets and communities.[2] Our detailed response to the Committee's Terms of Reference has been prepared in two parts:

Appendix One describes DNSPs' current practices and obligations regarding data centre connections, including current and forecast data centre demand, obligations on DNSPs under the National Electricity Rules (**NER**), and demonstrates how NSW DNSPs apply a pricing framework designed to avoid cost impacts to the wider customer base, specifically by recovering network augmentation costs directly from data centre connections. This includes recovery of the NSW electricity infrastructure roadmap charges. Relevant to the Committee's consideration is that in NSW, consumers or load (such as data centres) must pay the full cost of connecting to the distribution network. This is not the case in other jurisdictions where connection costs are socialised amongst all consumers in the distribution network.

Appendix Two recommends reforms to keep pace with data centre growth, including how data centre demand forecasting can be made more consistent and reliable, the importance of strategic coordination of data centre locations (including opportunities specific to locating data centres in regional NSW). It also encourages the Committee to consider differences between transmission and distribution connections rules relating to data centres, and to support reforms to allow DNSPs to have a more flexible and responsive approach to accommodating data centre growth. Finally, it sets out how data centres can contribute to the development of NSW's future energy system by purchasing electricity from NSW-based generators.

We look forward to continuing to support the NSW Government in its development of a strategic approach to data centre development, and to supporting the Committee in carrying out this Inquiry. Should you wish to discuss our submission further, please contact:

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Yours sincerely

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[1] Ausgrid, Endeavour Energy and Essential Energy; NSW Distribution System Plan Opportunities Report; 2025

[2] NSW Legislative Council Public Accountability and Works Committee; Media Release, 4 February 2026

Appendix One: Current DNSP Practices and Obligations

The purpose of Appendix One is to provide the Committee with an overview of NSW DNSPs' current practices and obligations regarding data centre connections, including current and forecast data centre demand, our obligations under the National Electricity Rules (NER), and demonstrates how NSW DNSPs apply a pricing framework designed to avoid cost impacts to the wider customer base, specifically by recovering network augmentation costs directly from data centre connections.

1. Current and forecast data centre demand

NSW hosts more than 90 operational data centres.[3] Sydney is positioned as the country's largest data centre hub, in a national market that is projected to reach $12.1 billion by 2033.[4] Analysis of DNSP customer and connection enquiry information shows that by 2040, data centres are projected to account for between 17-30 per cent of total operational load in NSW, up from 4 per cent today.[5]

NSW is well placed to attract continued data centre investment, supported by a skilled workforce and government initiatives. The 2025-26 NSW Budget included funding to drive digital infrastructure investment, establishing the Infrastructure Delivery Authority (**IDA**) to accelerate approvals for projects including large data centres.[6] This growth is translating into significant economic and employment outcomes.

Data centres fall into three broad categories based on their power consumption patterns:

- Enterprise and co-location facilities
- Hyperscale and cloud data centres, and
- Artificial intelligence (**AI**) and large language model (**LLM**) data centres.

In NSW, the leading data centre operators – such as AirTrunk, Canberra Data Centres, NEXTDC and Amazon Web Services – primarily operate hyperscale or co-location facilities. A more detailed comparison of these different types of data centre is provided in the NSW Distribution System Plan Opportunities Report (**NSW DSP**).[7]

There is inherent uncertainty about how demand will evolve over time. To illustrate how DNSPs are seeking to navigate this uncertainty, the NSW DSP modelled three scenarios to understand distribution network opportunities over a 24-year planning horizon[8]. The scenarios considered were:

- "**Customer transformation" and "optimistic"**: these scenarios reflect stronger growth in electrification and data centre demand, and

[3] Property Council of Australia; NSW Needs a Data Centres Strategy to Unlock Digital Growth; 2025

[4] The term "Australia Data Center Market Size", as used by IMARC, refers to the total annual revenues in Australia in the data centre sector, covering both solutions and services components (under their definitions). IMARC Group; Australia Data Center Market Size and Growth Report 2033; 2025

[5] Oxford Economics on behalf of AEMO; Data Centre Energy Demand; p. 20 and Distribution System Plan Opportunities Report, p. 65 and Distribution System Plan Opportunities Report Appendix B, pp. 7-8

[6] NSW Government; Investment Delivery Authority to turbocharge business investment in NSW; 23 June 2025

[7] Distribution System Plan Opportunities Report, pp. 65-66

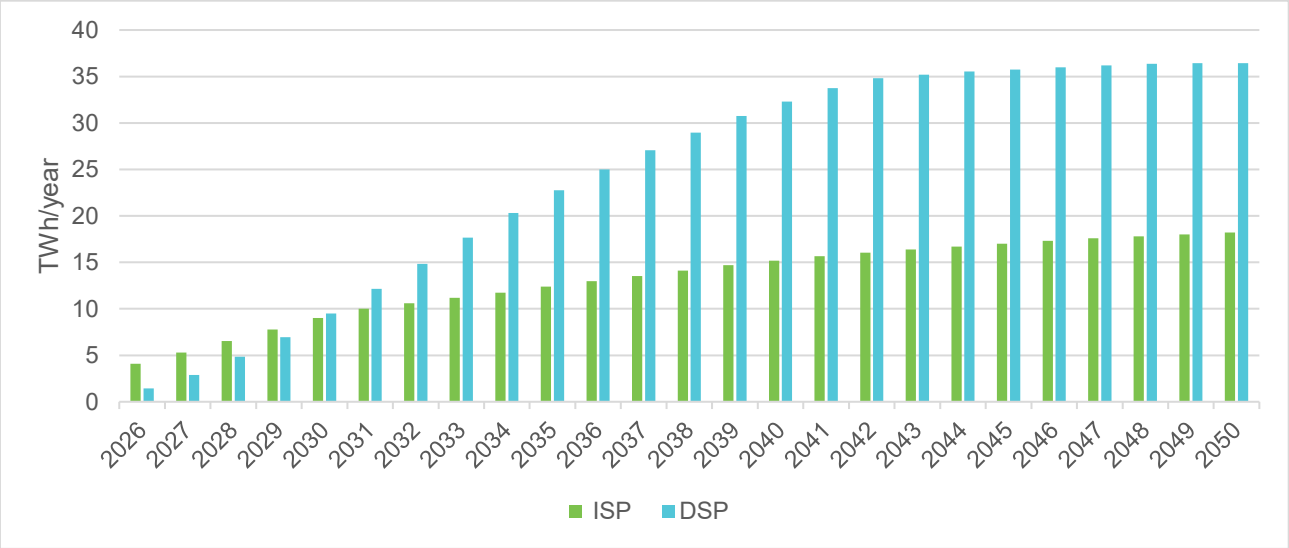
[8] Distribution System Plan Opportunities Report, p. 4 and 29

- **"Falling short"**: included a lower demand forecast (due to lower electrification as well as lower data centre growth) that was comparable to the Australian Energy Market Operator's (**AEMO**) 2025 Electricity Statement of Opportunities (**ESOO**) Central forecast.

In developing these scenarios, a probability-weighted estimate of expected growth was applied using connection enquiry data for projects likely to proceed by 2030. The modelling also applied a conservative linear 'ramping' profile, which assumes a gradual increase in data centre load into the late 2030s. Importantly, this approach intentionally excluded potential future enquiries or unforeseen connection requests.

To ensure that only highly likely projects are included, the data centre load forecast used for the NSW DSP includes connection requests before and up to 2030 that are likely to proceed. A 'ramping profile' was then used to linearly increase data centre load from that date.[9] Even under these deliberately conservative assumptions, the resulting demand centre load forecasts indicate *significantly higher* demand through the 2030s than that modelled by AEMO's Integrated System Plan (**ISP**) Central forecast. This comparison between AEMO's ISP projections and the NSW DNSPs' data centre load projections is shown in **Figure 1** below.

Figure 1: NSW data centre load projections in AEMO ISP and NSW DSP



2. DNSPs' obligations to connect data centres under National Electricity Rules

Under the National Electricity Rules (**NER**), DNSPs have obligations to connect customers, including data centres.[10] [11] For example:

- upon receiving a connection application, a DNSP must make a connection offer that complies with a customer's reasonable requirements. Where connections requests fall outside standard offerings, DNSPs must negotiate in good faith with the connecting party to develop a mutually agreed connection;

- DNSPs must submit a connection policy, to be approved by the AER, setting out standard charges a customer must pay when connecting;

[9] Distribution System Plan Appendix B.1.1.5 (Data Centres), p 7

[10] Chapter 5A, National Electricity Rules

[11] DNSPs' licenses to operate in NSW under state law are linked to our compliance with the NER, as well as other safety and reliability obligations to manage risks to the network which are regulated by IPART.

- DNSPs are responsible for ensuring that new connections do not compromise the safety and reliability of the network and comply with technical requirements in the NER; and

- DNSPs are required to process applications and provide offers as soon as practicable, in an equitable manner that does not favour any customer.

As a result, the NER grants DNSPs limited discretion about how connections are undertaken or how potentially speculative connection applications are managed, provided they meet basic requirements. The NER's open access regime means DNSPs cannot enforce the connection of large new loads, like data centres, in parts of the network where spare capacity already exists. Instead, DNSPs must respond to connection requests in the locations nominated by applicants, even where alternative locations may deliver better whole-of-system outcomes.

Notwithstanding media commentary about potential risks of duplication, speculation, and 'connection-banking' (i.e. attempting to lock in a high-volume electricity connection in advance of securing data customers to utilise that connection), networks are obliged to negotiate in good faith with applicants.

3. DNSPs charge for data centre connections in a manner that avoids cost for the wider consumer base

DNSPs insulate our broader customer base from costs incurred connecting data centres. In principle, NSW takes a 'causer pays' approach to the impact of new connections on the network. This differentiates NSW from other jurisdictions or international examples. Typically:

- data centre customers are charged a bespoke tariff ***covering the full costs of their connection***. These tariffs are designed to recover 100 per cent of the costs associated with their connection ***plus*** their fair share towards the fixed costs of the existing network. This approach ensures that the costs of new connections are not passed on to other customers. In addition, the contribution to the fixed costs of the existing network reduces the amount of revenue that needs to be recovered from existing connected customers, putting downward pressure on the distribution network portion of their bills;

- data centre customers may pay a portion of capital costs upfront as a direct contribution, depending on the network connection policy and configuration of augmentation needed to service their connection to the network;[12] and

- some data centre customers are also required to provide a contractual bank guarantee (formally, a Guarantee of Minimum Revenue) to ensure that costs incurred by the DNSP in providing a connection point will be recovered, even if the connecting customer does not take as much electricity as expected or if it ceases trading. This ensures that other customers are not left to bear costs if anticipated demand fails to materialise.[13]

The total network price for distribution connected customers includes several components: distribution revenue recovery, metering charges, transmission revenue recovery and jurisdictional cost pass-through. Jurisdictional scheme costs (such as those associated with the NSW Electricity Infrastructure Roadmap) are expected to increase over time and are correlated with customer consumption. Currently, if data centres connect at the transmission network level they would not pay their contribution towards the NSW Electricity Infrastructure Roadmap.

NSW DNSPs implement Individually Calculated Tariffs (**ICTs**) (also known as Site Specific Network Tariffs (**SSNTs**)) for large loads like data centres, designed to reflect the full efficient cost of serving that

[12] NSW DNSP connection policies can be found here: Ausgrid, Endeavour Energy, Essential Energy

[13] Customers connecting to existing assets or who pay through an upfront capital contribution do not typically require a bank guarantee.

customer, in-line with pricing principles required under the NER. The revenue recovered through the ICT/SSNT covers:

- the cost of the new infrastructure needed to support these customers (including the return on and return of capital); and
- their share of the use of the shared transmission and distribution network.

Therefore, while part of the recovered revenue covers the cost of new infrastructure, the remainder improves utilisation of the shared transmission and distribution network. As network revenues are fixed by the AER, being able to spread the same amount of revenue across more units of demand lowers average costs for our other customers over time.

Appendix Two: Considerations for Reform

The purpose of Appendix Two is to provide the Committee with considerations for reforms to keep pace with data centre growth, including how data centre demand forecasting can be made more consistent and reliable, the importance of strategic coordination of data centre locations (including opportunities specific to locating data centres in regional NSW). It encourages the Committee to consider addressing differences between transmission and distribution connections rules relating to data centres, and to support reforms to allow DNSPs to have a more flexible and responsive approach to accommodating data centre growth. Finally, it sets out how data centres can contribute to development of NSW's future energy system through purchasing electricity from NSW-based generators.

1. Improving forecasting of data centre demand

NSW DNSP Recommendation: The Inquiry should consider NSW Government reforms to establish a consistent, standardised methodology for forecasting data centre connection demand in NSW.

The unpredictability of data centre deployment has made load forecasting significantly more challenging for DNSPs which is, in turn, complicating network augmentation and investment decisions, and increasing the risks of over or under-investment.

Connection enquiry volumes do not necessarily convert directly into connected demand, as not all enquiries proceed to energisation. Distinguishing between genuine and speculative connection enquiries can be a challenge for DNSPs, especially when set against our obligations to connect which are outlined above. Through work to strengthen validation of applications, more than 3 GW of speculative demand has been removed from the application stage of Ausgrid's connections pipeline – approximately 30 per cent of the total pipeline.

DNSP forecasts and planning are much more sensitive to this uncertainty than they are to other smaller customers. While relatively few in number, the size of each data centre connection means individual investment decisions can materially shift forecast outcomes, contributing to planning uncertainty. For example:

- data centre connection requests, in Western Sydney alone, are placing significant demands on Endeavour Energy, with demand growth being increasingly driven by hyperscale and co-location facilities adopting AI workloads in addition to traditional cloud computing. This is evident in the much steeper ramp rates for load demand being presented, where ultimate loads are reached within 1-2 years rather than the more typical 5-10 years.

- on average, requested capacity has increased from ~30 Megavolt-Amperes (**MVA**) to 100 MVA+ per site. To give a sense of scale, the largest single industrial load on Ausgrid's network today have a peak demand of around 30 MVA.

Effective forecasting of data centre electricity demand is therefore critical to ensure reliable and efficient operation of the distribution network, and to guide longer term planning and anticipatory investments that support load growth.

NSW DNSPs consider there is a need to establish a consistent, standardised methodology for forecasting data centre demand, incorporating factors such as varying scales of operation, technological improvements, and potential demand management measures. These forecasts should be underpinned by DNSP data on connection enquiries and customer insights.

A uniform approach would enable DNSPs to better anticipate connection requirements, optimise network investments, and coordinate with data centre operators on load management strategies. Moreover, improved forecasting frameworks can support more transparent and proactive engagement between

DNSPs, regulators, and industry stakeholders – facilitating sustainable growth while maintaining grid stability and reliability. NSW DNSPs recommend that distribution system planning, including in relation to data centre demand, informs EnergyCo's NSW System Plan to co-optimise distribution and transmission networks, including in accommodating major loads such as data centres.

2. Identifying priority locations for data centres

NSW DNSP recommendation: The Inquiry should support joint utility and government planning work to identify and designate suitable precinct-based hubs for future data centre development

The unprecedented, system-shaping scale and pace of data centre growth in some parts of the network cannot be managed through business-as-usual planning. NSW DNSPs recommend that this Inquiry consider reforms to support more strategic planning of data centre locations, so that these connections can better support improved network utilisation and minimised augmentation costs alongside efficient use of land and water access. The reforms should be considered in the context of broader land use planning for cities and regions, including planning for industrial areas (such as renewable energy industrial precincts) to ensure alignment between energy infrastructure development, strategic urban growth and economic development objectives.

The current customer/developer-led approach to data centre connections risks contributing to system inefficiencies. For example, data centre connections may result in already-constrained electrical corridors being used for the purpose of a single, very large customer, thereby limiting broader system value. Anecdotally, we are aware that:

- sites are often secured before network feasibility is known, locking up scarce industrial land and forcing reactive infrastructure responses;
- under the current approach to locating data centres, it is not possible for utilities to undertake planning, or deploy capital, in an economically efficient manner to achieve economies of scale, with the consequential likelihood of greater connection costs; and
- land use conflict with housing, logistics and employment uses has already emerged as a community concern in multiple growth corridors.

However, there are locations within the NSW distribution system where existing infrastructure is underutilised and can accommodate large, high load customers with comparatively low lead times and risk. These areas present a strategic opportunity to support near-term connection demand while maintaining network stability. A clear example, detailed in Box 1 on the next page, is Macquarie Park, where Ausgrid is progressing the development of the Wallumatta substation, and in Western Sydney, where Endeavour Energy is modelling an 'energy hub' approach with the intent of aggregating data centre demand so it can be supported by shared network infrastructure, as detailed in Box 2.

We therefore recommend this Inquiry build off work NSW DNSPs are actively pursuing, in collaboration with other utilities including Transgrid and Sydney Water, data centre developers and Infrastructure NSW to support the identification of viable 'precinct-based hubs'. These hubs could serve multiple large data centre customers deemed suitable following an assessment of electricity system capacity and investment needs, proximity to other industries, customer preferences, and the needs of other key utilities (electricity transmission, water and fibre-optic access).

Box 1 – Case Study: Wallumatta Substation

Over the past five years, Ausgrid has connected six data centres in the Macquarie Park area. As at 2026, the area is operating at approximately 35% utilisation of network capacity, that is, 330 MVA utilised of a total 940 MVA available to connect. Of this utilised capacity, the six connected data centres account for 180 MVA, and are forecast to continue ramping until reaching their end state power consumption of 300MVA. At this point utilisation in the area will increase to approximately 50%.

Even with these customers utilising end state power, significant headroom capacity in the Macquarie Park region remains. However, the precinct is limited by the absence of further physical connection points to unlock further data centre load growth.

Ausgrid has proposed the new Wallumatta substation as a contingent project to provide additional connection points for data centre growth in the area. It has been sized to avoid the need for a new bulk supply point and associated transmission network upgrades. Connecting data centre customers will fully fund the asset through appropriate tariff structures, financial guarantees, and upfront contributions. Subject to approval, the project would increase distribution network utilisation, spreading fixed network costs over higher consumption and putting downward pressure on existing customer network bills.

Box 2 – Case Study: Western Sydney Energy Hub Concept

Over the past decade, Western Sydney has emerged as one of the fastest-growing locations for hyperscale data centres in Australia, driven by access to industrial land, fibre connectivity and proximity to major customers. As at 2026, multiple data centres are seeking connection with individual facilities now commonly requesting 100 MVA or more of capacity.

Anticipatory investment is already in place to deliver new electricity infrastructure for priority growth areas across the region, and for precincts in the Western Sydney Aerotropolis (including $136.7 million in joint-funding from Transgrid and Endeavour Energy to deliver a new Bulk Supply Point (BSP) at Kemps Creek and upgrade the distribution network).

To make best use of the new BSP and to enable least cost connection options to customers, Endeavour Energy is working with industry (including data centres, Sydney Water and Transgrid) to develop a '**Data Centre Energy Hub'** concept that clusters data centre connections within a defined precinct, so they can be supported by shared enabling infrastructure. Rather than duplicating assets for each connection, the hub aggregates demand and provides a coordinated set of connection points sized to support staged growth over time.

Each connecting data centre customer would fully fund their portion of the assets through appropriate tariff structures, upfront contributions and financial guarantees, consistent with a "causer pays" approach. Also, by increasing utilisation of shared distribution infrastructure, the hub model seeks to improve network efficiency, spread fixed network costs across a larger customer base, and place downward pressure on the distribution network component of existing customer bills.

Beyond capacity outcomes, the hub could provide a platform for broader energy transition benefits, including the potential integration of battery energy storage, demand flexibility and co-located generation, subject to appropriate regulatory and planning settings.

Importantly, adopting this strategically coordinated approach to locating data centres would better utilise shared network assets, avoid inefficient duplication of infrastructure and deliver scalable coordinated

connection solutions that better multiple customers while supporting broader economic and industry development objectives.

3. Recognising the challenges and opportunities for data centres outside metropolitan areas

NSW DNSP recommendation: The Inquiry should support targeted investment in skills development, workforce attraction and broader regional capability to enable data centres to locate in regional NSW.

Regional NSW presents a genuine strategic opportunity for future load development, including data centres. More broadly, regional areas can offer substantial existing network capacity, making them an attractive complement to more capacity constrained areas of the State. In this respect, regional locations should not be viewed as peripheral to future data centre development, but as a credible part of the NSW data centre development strategy.

Several small data centres are already operating in strategic locations across regional NSW, and medium sized facilities are under development in Queanbeyan. This demonstrates that regional centres can host higher-load data centre projects where conditions are right. However, these facilities remain the exception. To date, the vast majority of large data centres that are operating, committed or planned are concentrated in and around major cities.

A key reason for this concentration is that data centres have been developed in clusters. Operators frequently prefer to locate near existing facilities, service providers and supporting infrastructure, which reinforce a strong preference for metropolitan locations. Low latency when serving metropolitan-based customers has also contributed to the preference to date for metropolitan locations. However, this pattern does not apply equally across all data centre workloads. For some AI-related uses, latency may be less critical than for more traditional data centre services, which may create greater scope for suitably located regional centres to compete.

The primary constraints to further regional deployment are not, in most cases, electricity network related. Data centres are highly specialised operations and depend on access to skilled labour across IT operations, cyber security, mechanical cooling systems, and high voltage electrical systems. These capabilities are more readily available in metropolitan labour markets.

From a network perspective, many regional areas have capacity to accommodate additional large loads. In the right locations, connecting data centres in regional areas can improve utilisation of existing network assets and support more efficient use of infrastructure. Regional networks may also have capacity to host the generation and storage assets needed to meet the growing demands from data centres and other large loads, providing more options to co-locate large data centre loads with renewable generation which increases efficiency and reliability of electricity supply.

If the NSW Government wishes to encourage more data centre development in regional NSW, the most effective policy levers are likely to sit outside the energy system. Targeted investment in skills development, workforce attraction and broader regional capability would more directly address the key barriers to investment. There may also be value in supporting early mover development in suitable regional locations, as attracting an initial major facility could help establish the foundation of a larger cluster.

Equally important is building and maintaining social licence, particularly given the scale, visibility and resource intensity of many data centre developments. Where environmental, water, planning or land use issues arise, these are best addressed through existing planning frameworks and in partnership with local communities on a case-by-case basis. Engaging with local councils on identifying, planning, siting and building public support for data centres is likely to be particularly important in regional areas, where data centres can play a critical role in creating economic opportunities and employment.

4. Removing inequities in the cost of connections between distribution and transmission

NSW DNSP recommendation: The Inquiry should encourage the NSW Government to deliver on its commitment to review the exemptions framework for Roadmap costs and consider the inclusion of transmission-connected businesses.

Transmission and distribution networks are subject to different pricing frameworks under the NER, which gives rise to material inequities in the cost recovery practices between networks for large connecting customers. Jurisdictional scheme costs, such as charges associated with the NSW Electricity Infrastructure Roadmap (**Roadmap**) and the NSW Climate Change Fund, are solely recovered through distribution network tariffs, meaning that all distribution-connected customers pay for these schemes that equivalent transmission-connected customers avoid. There is a risk that data centre proponents are therefore being influenced by the pricing frameworks and regulatory treatment their projects would receive, rather than by the location that delivers the most efficient outcome for their customers and the electricity system.

NSW DNSPs encourage the Committee to consider how to address these differences in regulatory treatment between transmission and distribution as part of its Inquiry.

Addressing this issue is important because the distribution network can provide an important pathway for large new data centre loads in appropriate locations, particularly at a time when the transmission system is also under significant pressure from the scale of new generation, storage and augmentation projects required for the broader energy transition. If pricing inequities are left unaddressed, there is a risk that data centre proponents will avoid otherwise suitable distribution locations, reducing flexibility in how the broader energy system responds to load growth. Reform to address these inequities, particularly in relation to jurisdictional charges, would support more efficient siting decisions and better utilisation of both transmission and distribution network capacity.

To progress its thinking, the Committee could look to Recommendation 15 of the 2023 *Electricity Supply and Reliability Check Up*, which recommended reviewing the exemptions framework for Roadmap costs and considering the inclusion of transmission-connected businesses.[14] We understand the NSW Department of Climate Change, Energy, the Environment and Water is already progressing work on this recommendation. The Committee could also look to Recommendation 11G of the National Electricity Market wholesale market settings review, which recommended Energy Ministers pursue reforms to improve consistency in the treatment of load across the distribution and transmission levels. [15] The Energy and Climate Change Ministerial Council agreed to implement this recommendation in December 2025.[16]

5. Enabling anticipatory investment through regulatory reform

NSW DNSP recommendation: The Inquiry should encourage the NSW Government to support changes to the NER to provide networks with greater flexibility to respond to changes in data centre energy needs.

The current regulatory framework presents barriers to anticipatory investment in distribution network infrastructure. This limits the ability of DNSPs to invest in network assets that encourage data centre connections towards areas of the network that work best from a whole-of-system perspective. NSW DNSPs encourage the Inquiry to consider reforms that would better support proactive DNSP planning. These reforms would support the delivery of other recommendations made in this submission, thereby

[14] Marsden Jacob Associates; NSW Electricity Supply and Reliability Check Up; 2023

[15] Nelson, T., Conboy, P., Hancock, A., Hirschhorn, P., 2025. National Electricity Market wholesale market settings review: Final Report, Federal Government Department of Climate Change, Energy, the Environment and Water

[16] Energy and Climate Change Ministerial Council, Meeting Communique 16 December 2025

helping to unlock opportunities to site data centres in locations that improve network utilisation and minimise augmentation costs.

Anticipatory investment refers to making investments in the electricity network that address long-term needs at the lowest possible cost. Unlike reactive investments, anticipatory investment involves planning and building infrastructure ahead of time – based on forecasts of future demand – rather than waiting to respond to existing needs.

In developing regulatory proposals, DNSPs must include total forecast capital expenditure required to meet demand over the regulatory control period, comply with regulations and meet network performance obligations. This takes place under a 5-yearly regulatory reset cycle, with proposals being finalised 18-24 months before the reset takes effect. The current cycle leaves networks in the position of having to make binding forecasts of data centre demand up to 7 years in advance – clearly incompatible with a large and fast-developing sector. The AER makes its distribution determination by assessing what it would cost a prudent and efficient operator to achieve these objectives, ensuring that these costs are based on realistic expectations of future demand and expenses. This framework makes anticipatory investment proposals challenging, placing the focus for distribution investment primarily on addressing short-term network needs, rather than identifying opportunities to more efficiently use the distribution network and to lower the overall cost of energy provision over the long term.

Moreover, the current regulatory framework lacks the flexibility to respond efficiently to uncertainties that emerge during a 5-year regulatory period. In an environment of unprecedented change, there is increasing uncertainty around demand growth driven by data centres, as well as smaller demand sources including EVs and residential and business electrification. The inability to respond efficiently to rapidly emerging or changing expenditure limits the ability for DNSPs to provide timely solutions for customers and results in delays to the energy transition.

DNSPs are exploring changes to the NER to provide greater flexibility to respond to data centre related uncertainties as well as other impacts of the energy transition which may require anticipatory investment. This includes lowering the materiality threshold to re-open regulatory determinations, so that adjustments can be made reflecting the actual volume of data centre developments that eventuate. Additionally, greater flexibility would be achieved, particularly for large connections, by allowing contingent projects for projects which are “foreseeable” but not necessarily “probable” nor attached to a specific location prior to the start of a regulatory determination period. Both reforms would protect DNSPs from cost overruns outside their control, while also ensuring that customers do not pay for projects that do not materialise. Peer nations including the United Kingdom and New Zealand have already adopted equivalent flexibilities in their regulations. NSW Government support for such reforms would be valuable.

6. The contribution that data centres can play in NSW’s future energy development

NSW DNSP recommendation: The inquiry should investigate opportunities within planning and environmental approvals pathways to align with the recently published Commonwealth Government Expectations

NSW DNSPs acknowledge community concerns regarding the potential risk that data centres remain inflexible, continuous loads that exacerbate peak demand and drive up NSW emissions through a reliance on diesel backup generators. We consider there to be opportunities within the State’s planning and environmental approvals frameworks to address this concern, thereby ensuring data centre connections are contributing to an overall downward pressure on consumers’ bills and reduction in state emissions. Such measures would be in line with the Commonwealth Government’s recently announced, “Expectations

of data centres and AI infrastructure developers".[17] We encourage this Committee to investigate these opportunities, with the appropriate stakeholders, further through this Inquiry.

Specifically, we note that data centres are uniquely positioned to partner with NSW-based generators, through Power Purchase Agreements (**PPAs**), providing them with a reliable high and consistent demand energy user over a very long period. Proponents for data centres are likely to also have capital to invest in supporting renewable generation, batteries and demand flexibility if planning, regulatory and environmental settings are right. Anecdotally, we are aware that data centres consider the use of their diesel backup generators to be a last resort, and are actively exploring alternative energy options, including BESS developments, partnerships with gas generators to help manage peak demand periods, and entering into bilateral PPAs with renewable developers.

While PPAs do not, of themselves, provide network capacity or firm supply at specific locations, long-term, firm PPAs encourage investment in new generation. An immediate reliance on such arrangements for network planning purposes would therefore require careful consideration and appropriate safeguards. We recommend the inquiry investigate opportunities within planning and environmental approvals pathways to align with the recently published Commonwealth Government Expectations. We are working with data centre customers to investigate solutions for load flexibility that would allow data centres to support the grid during peak periods.

[17] Department of Industry, Science and Resources; Expectations of data centres and AI infrastructure developers; March 2026