27 March 2026

Ms Abigail Boyd MLC
Chair
Public Accountability and Works Committee
Parliament of New South Wales

RE: NSW Parliamentary Inquiry into Data Centres

Dear Chair,

Squadron Energy welcomes the opportunity to make a submission to the NSW Legislative Council Public Accountability and Works Committee Inquiry into data centres.

Squadron Energy (SQE) is Australia's leading renewable energy company that develops, operates and owns renewable energy assets in Australia. We currently have 2 gigawatts (GW) of renewable energy generation in operation or under construction and our ambition is to be the single biggest contributor to helping Australia meet its renewable energy and decarbonisation targets. Our development pipeline includes projects at varying stages across wind, solar and firming technologies, including batteries and gas peaking plants with dual fuel capability. With proven experience and expertise across the project lifecycle, we work with local communities and our customers to lead the transition to Australia's clean energy future.

Data centres are emerging as a critical component of Australia's digital economy. At the same time, their rapid growth presents material implications for electricity systems, emissions trajectories, land use, water security, community amenity and regional development. This Inquiry represents an important opportunity to ensure that data centre development in New South Wales (NSW) is coordinated, transparent and aligned with long term public interest outcomes.

With the right framework, NSW can attract investment to accelerate renewable energy and storage and protect consumers and communities. Without coordination, NSW risks higher electricity prices, increased emissions, inefficient infrastructure investment and growing community opposition. This Inquiry is a critical opportunity to ensure NSW gets the balance right. The challenge for policymakers is therefore not whether to enable data centres, but how to do so in a way that delivers net public benefit.

Scale and trajectory of data centre development in NSW

Australia's operational data centre capacity is expected to increase from around 0.45 GW today to between 2.2 and 3.2 GW by 2035, representing 8–11% of national electricity consumption.[1] NSW, particularly Sydney and Western Sydney, is expected to host a disproportionate share of this growth, with around half of pipeline projects located in Sydney alone, adding approximately 2.6 GW of load to the local network.

This growth is structurally driven by AI, cloud computing and digital services and is therefore likely to be sustained, not cyclical. Without strategic intervention, continued concentration in a small number of urban locations risks exceeding available network headroom, crowding out other electrifying sectors and increasing electricity costs for consumers.

The Inquiry should treat data centre growth as a system-level issue, not a series of individual developments, and assess cumulative impacts at a precinct, regional and whole-of-system level.

Planning frameworks and cumulative system impacts

Data centres are commonly assessed in NSW as State Significant Development (SSD), with electricity demand used as a key trigger. While SSD pathways enable coordination, the current framework is project-focused and does not sufficiently address:

- cumulative electricity and network impacts

[1] Baringa (2025) Getting the balance right - data centres and the energy transition.

- spatial concentration of load
- interactions with emissions targets and energy infrastructure planning.

Fast-track and facilitation mechanisms can support investment certainty, but risk prioritising speed over long-term system efficiency and social licence if not anchored in a strategic framework.

SQE considers planning frameworks should be strengthened to:

- explicitly assess cumulative load and infrastructure impacts
- integrate electricity network capacity, REZ development and emissions outcomes into locational decisions
- move beyond electricity demand thresholds alone as a proxy for overall impact.

Clear strategic guidance would improve outcomes for proponents, communities and infrastructure planners alike.

Recent Commonwealth policy developments reinforce the need for this strategic approach. The Australian Government has indicated that data centre proposals most closely aligned with national expectations, including clean energy additionality, responsible water use and community benefit, will be prioritised through regulatory processes.

NSW planning frameworks should therefore be updated to ensure that facilitation NSW SSD pathways are anchored in clear, publicly articulated criteria that reflect these emerging national signals, rather than prioritising speed alone.

Policy alignment with Commonwealth data centre expectations

Squadron Energy notes the Australian Government's recent release of *Expectations for Data Centres that Deliver for Australians*[2], which set out clear national signals for data centre development in the national interest.

These expectations emphasise the need for data centres to support Australia's clean energy transition through underwriting new renewable generation, paying their full share of network costs, using water sustainably, investing in Australian skills and delivering tangible community benefit.

The issues examined in this Inquiry closely align with these national expectations. In particular, the need to manage cumulative electricity demand, emissions, water use and community impacts reinforces the importance of coordinated policy settings between NSW and the Commonwealth.

Alignment between state planning frameworks and emerging national expectations will be critical to providing investor certainty while ensuring data centre development delivers net public benefit for NSW communities and energy consumers.

Electricity demand, prices and emissions

The majority of data centres are characterised by large, continuous, flat electricity loads, which fundamentally change demand profiles. Independent modelling shows that if data centre growth is not matched with additional renewable generation:

- wholesale electricity prices could rise by around 26% in NSW by 2035
- grid emissions could increase by around 14% across the NEM, driven by increased gas generation.[3]

These impacts are not unique to data centres but are an inherent consequence of rapid load growth tightening supply.

Uncoordinated data centre growth risks:

[2] Expectations of data centres and AI infrastructure developers.
[3] Baringa (2025) Getting the balance right - data centres and the energy transition.

- higher electricity prices for households and businesses
- delayed coal retirements and
- higher emissions.

Importantly, the same modelling also demonstrates that most of these impacts can be mitigated if data centre demand is matched with additional renewable generation and firming capacity. An additional 3.2 GW of renewables nationally could largely eliminate emissions increases and reduce price impacts to single-digit percentages. Adding grid-scale storage further reduces peak price impacts and improves system resilience.[4]

Data centres can act as anchor customers for new renewable and storage investment where policy settings encourage genuine additionality rather than reliance on certificate based offsets alone. Such an outcome would align with NSW's emissions reduction targets and Electricity Infrastructure Roadmap.

This analysis aligns with the Australian Government's expectation that data centres underwrite new renewable supply and contribute to demand flexibility, rather than relying solely on existing generation or certificate-based offsets. Clear clean-energy additionality requirements at the state level would help ensure that data centre growth in NSW supports emissions reduction targets while protecting households and businesses from unnecessary price impacts.

Locational considerations: urban hubs and Renewable Energy Zones

The system impacts of data centres vary significantly by location. Urban hubs such as Western Sydney offer workforce and connectivity advantages but face:

- constrained network headroom
- competition with housing and other electrifying industries
- rising community impacts.

By contrast, REZ-adjacent locations (e.g. Central West Orana) can:

- unlock additional renewable generation
- reduce curtailment of renewable energy generation
- improve system efficiency

but face challenges regarding data latency, fibre, workforce and customer requirements.

Government has a clear role in guiding location decisions, rather than leaving outcomes solely to market forces. Strategic locational coordination can reduce system costs, improve emissions outcomes and better align data centre development with broader infrastructure and regional development objectives.

Community, water and land use considerations

Data centre growth brings with it a range of important considerations, including:

- water use, particularly under climate stress
- heat, noise and amenity considerations
- opportunity cost of land in growth corridors.

It is important to recognise that data centres are capital intensive, low employment assets with potentially significant localised impacts. Where such impacts are concentrated, there is a strong public interest case for clear community benefit expectations alongside mitigation requirements.

Project by project mitigation alone is unlikely to be sufficient in areas experiencing clustering of large facilities. Planning frameworks should therefore require precinct level assessment of cumulative community impacts, accompanied by transparent and enforceable community benefit mechanisms that are proportionate to scale and duration of impact. This may include shared infrastructure investment, support for local services, or other place based benefits developed in consultation with affected communities.

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[4] *Ibid*

Strong, early and ongoing community engagement should be treated as a core element of social licence, particularly where developments deliver limited direct employment while imposing sustained demands on local resources and amenity.

Water security has now been explicitly identified by the Commonwealth as a core element of social licence for data centre development. In regions already facing climate and water stress, this reinforces the need for transparent disclosure of water use, cooling technologies and mitigation measures, and for proponents to consider shared or precinct-scale solutions such as water recycling infrastructure where clustering occurs.

Data centre development also raises important land use considerations, particularly in metropolitan growth corridors where industrial land is scarce and demand for housing and employment intensive uses is high.

Squadron Energy supports a clearer hierarchy within planning frameworks to ensure data centres are directed to locations where they deliver net strategic value rather than displacing higher value social or economic uses. This includes steering development away from constrained urban precincts and toward locations where data centres can complement energy, infrastructure and regional development objectives.

Such an approach would improve planning integrity, protect housing supply and ensure that land use decisions reflect long term public benefit rather than short term availability.

Regional development and economic opportunities

If planned strategically, data centre development can significantly support regional economic diversification, particularly where co-located with renewable energy and transmission infrastructure.

Strategically planned data centre development in regional areas can deliver broader benefits when co-located with renewable energy and transmission infrastructure. These include workforce upskilling across electrical, mechanical and digital disciplines, diversification of regional economies and opportunities for shared infrastructure investment. Explicit regional development criteria: including skills development, local procurement and long-term economic contribution would help ensure these benefits are realised in practice.

Regional locations with suitable network capacity can benefit from new forms of infrastructure investment, skills development and industry diversification, helping to build more resilient local economies. Co location with renewable energy can support workforce upskilling across electrical, mechanical and digital disciplines, while creating demand for supporting services and supply chains.

Explicit regional development criteria – covering skills, infrastructure co investment and long term economic contribution – should therefore form part of any framework used to guide data centre development.

Governance, transparency and accountability

Given the scale and pace of projected growth, strong governance and transparency settings are essential.

Squadron Energy supports enhanced public reporting requirements for large data centres, including disclosure of electricity demand profiles, clean energy procurement arrangements, water use, cooling technologies and backup generation practices. Greater transparency would support more effective system planning, enable communities to understand local impacts and reduce the risk of cumulative effects being obscured.

Clear, published criteria for facilitation decisions, alongside public visibility of approval conditions, would further strengthen accountability and confidence in planning outcomes.

Recommendations

Squadron Energy recommends the Inquiry consider:

- Development of a NSW-wide data centre strategy aligned with energy, transmission, REZ and land-use planning, and in coordination with emerging Commonwealth policy settings.
- Locational coordination mechanisms to steer development toward suitable areas with available capacity or strategic value.
- Clear clean energy expectations for new and expanding data centres, focused on genuine additional investment in renewable generation and storage.

- Clear standards for backup generation, favouring low-emissions and flexible solutions.
- Improved transparency and forecasting of data centre load to support efficient network planning.
- Strong transparency and reporting standards for data centre electricity demand, water use and emissions.
- Cost-reflective network arrangements to protect other consumers from unnecessary infrastructure costs.
- Explicit community benefit and regional development criteria for large-scale data centre developments.

Conclusion

Data centres are critical infrastructure underpinning Australia's digital economy. Their growth creates significant opportunities for innovation, efficiency, and positive regional economic impact.

With coordinated policy, data centre development can accelerate renewable energy investment, support regional economies and strengthen system resilience. Without coordination, there is a real risk of higher prices, higher emissions and declining social licence.

By embedding clear public interest principles – covering additionality, transparency, fair cost allocation and community benefit, NSW can ensure that data centre growth proceeds in a way that is economically efficient, socially legitimate and environmentally responsible.

If you would like to discuss this submission or any related content, please contact Dan Newlan, Executive General Manager, Corporate Relations and Community, [redacted]

Yours sincerely,

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Squadron Energy