

8 September 2026

Committee Secretary
Senate Standing Committees on Environment and Communications
CANBERRA ACT 2600
Via online portal

Re: Senate Standing Committees on Environment and Communications inquiry into artificial intelligence and data centres

GrainGrowers welcomes the opportunity to provide a submission to the inquiry into artificial intelligence and data centres.

Australia's data centre sector is expected to expand significantly. While this growth presents economic opportunities, it also raises important questions regarding land use, energy infrastructure, water resources, and regional development.

For grain growers, the primary concern is not the direct footprint of data centres themselves, but the cumulative impacts that may arise where data centre development occurs alongside renewable energy projects, transmission infrastructure and other competing land uses in agricultural regions. Agricultural land is a finite and irreplaceable resource that underpins Australia's food and fibre production capacity, regional economies and long-term food security. As governments seek to support new industries, careful consideration must be given to the long-term impacts of land use change on productive agricultural land.

The most significant impacts on grain-growing regions are likely to arise indirectly through the infrastructure required to support data centre development. Growth in electricity demand may drive additional investment in renewable energy generation, transmission infrastructure and telecommunications networks, many of which are likely to intersect with agricultural landscapes. For this reason, data centres should not be assessed in isolation, but as part of the broader land use changes occurring across regional Australia.

While water use is likely to be a less significant issue for broadacre grain production than for other agricultural sectors, transparency remains essential. GrainGrowers supports mandatory and standardised public reporting of facility-level water and energy use to ensure governments, communities and industry can appropriately assess emerging impacts and maintain confidence in planning and approval processes.

GrainGrowers also recognises that data centres may create opportunities for regional Australia through investment, employment and improved digital infrastructure. However, these benefits

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will only be fully realised if growers, landholders and regional communities are meaningfully involved in decision-making from the outset and if planning frameworks appropriately recognise the cumulative impacts of development.

Accordingly, GrainGrowers recommend that governments:

- Prioritise productive land and water resources for agricultural purposes in planning and assessment processes for data centres.
- Adopt a nationally coordinated approach to land use planning and improve national land use data, mapping and monitoring capabilities.
- Require cumulative impact assessments where data centre developments are proposed in regions experiencing competition from multiple land uses.
- Ensure growers, landholders and regional communities have a meaningful role in planning and land use change decisions from the outset.
- Address power imbalances between developers and landholders through fair engagement, consultation and approval processes.
- Mandate transparent, facility-level reporting of water and energy use.
- The development of national-scale land use mapping.
- Assess cumulative social impacts of land use change.
- Establish an enforceable code of conduct for data centre developments and associated infrastructure.
- Ensure that regional communities hosting energy infrastructure associated with data centre development are not disadvantaged in accessing network capacity and electrification opportunities.
- Work collaboratively to provide greater certainty in land use planning frameworks.

This submission focuses on the implications of data centre development for grain growing regions and outlines measures to ensure that the expansion of Australia's digital infrastructure does not compromise the long-term productivity and resilience of grain growers and their communities.

About GrainGrowers

Empowering Australian grain growers through engagement, policy and capacity building.

GrainGrowers is a national organisation, driven by its vision: “Thriving Australian growers in vibrant communities.” Australian growers are at the heart of all that GrainGrowers does.

Guided by grower insights and on-farm experience, GrainGrowers is delivering best practice, future-focused advocacy and development initiatives for the benefit of the grain industry and regional communities.

The intersection between data centres and grain growing regions

Most existing facilities remain concentrated within major metropolitan centres and established industrial precincts. This reflects the traditional requirement for proximity to population centres,

internet exchange points and international submarine cable infrastructure. However, examples such as the recent land acquisitions at Taillem Bend in South Australia demonstrate growing interest in regional locations.

Emerging development patterns may also differ between jurisdictions. For example, in Western Australia, where energy markets and planning arrangements differ from the National Electricity Market, some proposals have focused on co-locating data centres directly with new generation assets, highlighting the need for policy settings that recognise regional differences across Australia.

While data centres themselves may occupy a relatively small land footprint, they cannot be considered in isolation. Their development may occur alongside renewable energy projects, transmission infrastructure and associated industrial development that collectively increase pressure on agricultural land and regional infrastructure.

While many data centres will continue to favour locations near major cities, future AI training facilities may have greater flexibility regarding location. These facilities are typically more energy-intensive and may therefore seek locations with access to large volumes of renewable electricity and transmission capacity. This has the potential to increase intersections with agricultural regions over time.

GrainGrowers' primary interest is ensuring that growth in the data centre sector does not undermine the long-term productive capacity of Australia's grain growing regions or create unintended impacts for farming businesses and regional communities.

Land use impacts

Key impact to grain growers: the primary concern is not necessarily the direct footprint of an individual data centre. Rather, the concern is the cumulative land use impact created when data centres are developed alongside renewable energy projects, transmission infrastructure, critical minerals developments and other industrial land uses.

From a grain grower perspective, land use impacts represent one of the most important issues associated with the expansion of the data centre sector.

Agricultural land is a finite and irreplaceable resource that underpins Australia's food and fibre production capacity, regional economies and long-term food security. While data centres have an important role to play in Australia's digital economy, their development should occur in a manner that avoids or minimises impacts on productive agricultural land, water resources and regional communities.

At present, relatively few data centres have been developed on productive agricultural land. Most remain concentrated within existing urban or industrial footprints. However, this situation may change as demand for new facilities grows and suitable industrial land around major cities becomes increasingly constrained. Industry commentary has identified access to appropriately zoned land and electricity infrastructure as one of the key challenges facing future data centre development.

Government policies encouraging major data centres to invest in new renewable energy generation may further influence location decisions, though it is noted that the minimum standards currently under development may provide some flexibility regarding how these requirements are met.

Renewable Energy Zones (REZs) are emerging as attractive locations because they offer proximity to electricity generation assets, transmission capacity and large sites that may be available at lower cost than metropolitan locations. Many REZs overlap with important grain-growing regions, such as the Mallee and Riverina regions.

While data centres can occupy a relatively modest land area compared to other forms of infrastructure, their development has the potential to contribute to broader patterns of land use change. GrainGrowers is concerned that planning and assessment frameworks often evaluate developments individually rather than considering the cumulative impacts of data centres, renewable energy projects, transmission infrastructure, housing development, critical minerals projects and other competing land uses on agricultural production and regional communities. In some regions, multiple forms of development are already competing for access to productive agricultural land, creating pressures that may not be fully captured through project-by-project assessment processes.

Agricultural land converted to industrial purposes is unlikely to return to agricultural production. While existing planning controls generally make rezoning productive agricultural land difficult, incremental land use change over time can progressively reduce the agricultural land base and alter the character and productive capacity of farming regions.

Data centre development may also differ from other forms of infrastructure development because projects may involve the outright acquisition of agricultural land rather than long-term leasing arrangements. While individual transactions may occur between willing buyers and willing sellers, the cumulative impacts on agricultural production, regional communities and land use patterns extend beyond individual properties. This reinforces the importance of robust land use planning frameworks that appropriately assess proposals involving productive agricultural land and consider impacts at a regional scale.

Governments should also consider mechanisms to improve transparency around significant land acquisition activity associated with major industrial developments, particularly where options to purchase are being assembled across agricultural regions. Greater transparency would support informed community engagement, earlier consideration of cumulative impacts and more effective land use planning.

Agricultural land should not be viewed solely as a development constraint. It is a strategic national asset that provides enduring economic and social value. Planning decisions must recognise the long-term benefits associated with maintaining Australia's productive agricultural land base and should not prioritise short-term economic outcomes at the expense of future food and fibre production.

The expansion of data centres and associated energy infrastructure also highlights the need for nationally coordinated land use databases and nationally consistent approaches to identifying and protecting prime agricultural land. Without this, there is a risk that land use decisions will be made inconsistently across jurisdictions and without adequate consideration of long-term agricultural impacts.

Cumulative land use change can have implications beyond agricultural production. Experience from other major infrastructure developments demonstrates that competing land uses can create community division, increase stress for affected landholders and place pressure on social cohesion within regional communities. These impacts should be considered alongside economic and environmental assessments when evaluating proposed developments.

For this reason, data centres should not be considered in isolation. Assessment frameworks should explicitly consider cumulative land use impacts and interactions with other existing and proposed developments within a region, including associated renewable energy generation, transmission infrastructure and other enabling infrastructure required to support data centre operations.

There is also a need for improved national land use data, mapping and monitoring capabilities. Current information on land use change is often fragmented across jurisdictions and datasets, making it difficult to develop a comprehensive understanding of emerging trends and cumulative impacts. Improved national-scale spatial modelling and land use monitoring would support evidence-based planning, help identify regions experiencing increasing land use competition, and provide governments with the information needed to balance economic development, food security and agricultural productivity objectives.

Energy Impacts

Key impact to grain growers: The most significant energy-related impact is unlikely to come from the data centres themselves, but from the additional renewable energy generation, transmission infrastructure and supporting development required to meet growing electricity demand. As a result, the indirect impacts associated with energy infrastructure may ultimately be more significant for grain growers than the data centres themselves.

Data centres are highly energy-intensive facilities and energy availability is likely to be a key determinant of where future developments locate. GrainGrowers understand that the First Ministers agreed to a more flexible approach to the proposed requirement for data centre investment in new generation capacity. Regardless of the final policy setting adopted, the growth of the sector is expected to increase demand for electricity generation, storage and network infrastructure.

For grain growers, this raises two key considerations. First, there is a risk that electricity demand associated with data centre growth could place additional pressure on energy prices and network capacity if new supply is not delivered in a timely manner. Secondly, the infrastructure required to meet this growing demand may increase land use pressures in agricultural regions.

A particular challenge is the timing mismatch between data centre development and energy infrastructure delivery. Data centres can often be developed within a few years, whereas renewable generation, storage and transmission infrastructure often takes considerably longer to plan, approve and construct. If new electricity demand emerges faster than supply can be delivered, there is potential for increased pressure on electricity prices and network capacity.

As governments seek to accommodate new sources of electricity demand, there is likely to be continued investment in renewable energy generation and associated transmission infrastructure. While renewable generation assets may not always be located on productive agricultural land, transmission corridors frequently traverse grain growing regions. Consequently, the indirect impacts associated with supplying energy to data centres have the potential to be more significant for grain growers than the facilities themselves.

While significant investment is occurring in electricity generation and transmission infrastructure across regional Australia, many farming businesses continue to face barriers in accessing affordable electricity network upgrades. GrainGrowers is concerned that growing demand from

data centres could further increase competition for network capacity in some regions. As governments seek to support data centre development, consideration should also be given to ensuring that host regions can access the infrastructure benefits associated with that investment, including improved opportunities for agricultural electrification and regional economic development.

There is also a need to understand where renewable energy infrastructure and future high-capacity telecommunications networks are likely to converge over time. Access to reliable fibre connectivity is a fundamental requirement for data centres and may influence future development patterns as telecommunications infrastructure expands into regional areas. This reinforces the importance of considering data centres within the broader context of cumulative land use change rather than assessing individual developments in isolation.

Water impacts

Key impact to grain growers: While water demand from data centres is unlikely to directly compete with broadacre grain production in most regions, transparent reporting of water use will be important to maintain social licence and ensure informed decision-making for future developments.

Water consumption remains an important consideration for regional communities, particularly where water resources may be constrained during drought periods or where multiple industries rely on the same local water systems.

For GrainGrowers, the primary issue is ensuring that policymakers, communities and industry have access to sufficient information to understand how water demand from data centres may affect individual regions over time. Transparent reporting is particularly important given the rapid growth expected in the sector and the uncertainty regarding the scale and location of future developments.

The proposed national principles for data centres include provisions relating to water efficiency. However, efficiency measures alone do not provide a complete picture of impacts. A facility may become more water efficient while simultaneously increasing its total water consumption as operations expand. For this reason, GrainGrowers supports mandatory and standardised disclosure of water consumption at the individual facility level.

Reporting should occur on a regular basis rather than annually, as water demand can vary significantly throughout the year. Seasonal transparency would provide governments, communities and industry with a more accurate understanding of local impacts during periods when water systems may already be under pressure. Australia should avoid policy approaches that limit public visibility of facility-level water consumption data. Transparency is essential to maintaining public confidence and ensuring informed decision-making regarding future development occurs with the confidence of regional communities.

Regional community impacts and co-benefits

Key impact to grain growers: The greatest risk to grain growing communities are planning and approval processes that fail to adequately involve growers, landholders and regional communities in decisions that affect them.

Key opportunity for grain growers: Beyond mitigating impacts, governments and developers should consider how data centre investment can deliver tangible benefits for host regions. Of particular relevance to growers, this may include support for agricultural and plant science research and improved regional digital infrastructure.

The growth of the data centre sector presents both opportunities and challenges for regional Australia. Investment in digital infrastructure, telecommunications networks and associated services may improve regional connectivity, support economic activity, and create employment opportunities in some communities. Improved digital infrastructure is particularly relevant given the ongoing challenges many regional Australians experience in accessing reliable communications services and the closure of the Regional Tech Hub.

Beyond improved digital infrastructure, governments should also consider how investment associated with data centre development can deliver practical benefits for host regions. For example, there may be opportunities to strengthen Australia's agricultural and plant science research capability. Where data centres are developed in regional areas, governments should consider opportunities to co-locate or establish partnerships with agricultural research institutions and plant science organisations. Access to high-performance computing and data infrastructure could support advances in crop breeding, genomics, climate modelling and precision agriculture, creating shared benefits for both the digital economy and Australia's food and fibre sector.

Further, many grain growing communities already host, or are expected to host, significant renewable energy generation and transmission infrastructure. However, farming businesses can continue to face barriers accessing affordable network upgrades and opportunities for electrification. As new demand from data centres drives further investment in energy infrastructure, consideration should be given to how host regions can share in these benefits, including through improved access to electricity infrastructure to support agricultural productivity and sustainability.

For grain growers, however, the key consideration is not simply whether development occurs, but how decisions are made and whether local communities have a genuine opportunity to influence outcomes. Experience from other forms of major infrastructure development has demonstrated that projects are more likely to achieve community acceptance where affected landholders and communities have genuine opportunities to shape outcomes, rather than being consulted after key decisions have been made.

Data centre development provides an opportunity to apply these lessons from the outset. In some regions, concerns have already emerged regarding data centre community engagement,

transparency, social licence and the ability of communities to effectively participate in decision-making processes. These issues should be considered proactively when establishing regulatory frameworks for data centres and associated infrastructure.

Regardless of the approval pathway adopted, affected communities should retain meaningful opportunities to understand proposed developments, provide input and have local impacts appropriately considered. Efforts to improve coordination between governments or streamline approvals should not come at the expense of local participation or the role of local government in representing the interests of regional communities.

Governments should also recognise the significant power imbalances that can exist between developers and individual landholders. Planning and approval frameworks should include safeguards that support fair negotiation, transparent information sharing, and equitable outcomes for affected growers and regional communities.

Finally, community impacts extend beyond economic consideration. Experience from other forms of land use change has demonstrated that poorly managed development can contribute to community division, increased stress for landholders and a loss of confidence in planning systems. Ensuring transparent decision-making, meaningful engagement and fair processes will be critical to maintaining social licence as the data centre sector continues to expand.

Recommendations

GrainGrowers does not oppose the development of data centres or the growth of Australia's digital economy. However, new developments should occur in a manner that avoids or minimises adverse impacts on agricultural land, regional communities and the environment, and recognises growers and landholders as partners in land use decision-making.

Consistent with [GrainGrowers' Agricultural Land Use Policy](#), GrainGrowers recommends that governments adopt a strategic, nationally coordinated approach to managing the growth of data centres and associated infrastructure, recognising that agricultural land is a finite and irreplaceable resource critical to Australia's food security, regional communities and economic prosperity.

Specifically, GrainGrowers recommends that:

1. **Prime agricultural land and water resources be prioritised for agricultural use in planning and assessment processes** for data centres and associated infrastructure, ensuring long-term food and fibre production is appropriately considered alongside competing land uses.
2. **Data centre development be considered within a nationally coordinated land use planning framework**, recognising the interconnected impacts of data centres, renewable energy projects, transmission infrastructure and other land use changes occurring across agricultural regions.

3. **Cumulative impact assessments be required** where data centre developments are proposed in regions already experiencing land use competition from multiple industries, including renewable energy, transmission and mining developments. Assessments should consider economic, social and environmental impacts, as well as implications for agricultural productivity.
4. **Growers and landholders be treated as partners in decision-making processes**, with a formal and substantive role in planning and land use change decisions from the outset, rather than being consulted after key decisions have already been made.
5. **Planning and approval frameworks should recognise the significant power imbalances that can exist between developers and landholders** and provide safeguards that support fair negotiation, genuine community participation and equitable outcomes for affected growers and regional communities, including transparent and consistent compensation frameworks that recognise loss of income, property devaluation and non-economic impacts..
6. **Governments mandate collection and publication of land use, energy and water-use data** associated with data centre developments to support evidence-based planning and improve understanding of impacts on agricultural regions over time.
7. **The development and application of national-scale land use mapping**, spatial modelling and analytical capabilities to identify areas of increasing land use competition and support the long-term protection of Australia's agricultural land and water resources.
8. **Approvals frameworks recognise the cumulative social impacts of land use change**, including impacts on community cohesion, wellbeing, regional identity and social licence, particularly in regions experiencing multiple concurrent infrastructure developments.
9. **Governments establish an enforceable code of conduct for data centre developments and associated infrastructure**, setting minimum standards for consultation, engagement, transparency, dispute resolution and locally relevant community benefit pathways, particularly where projects involve associated renewable energy generation, transmission infrastructure or changes to existing land use patterns.
10. **Governments and energy market bodies should ensure that regional communities hosting energy infrastructure associated with data centre development are not disadvantaged in accessing network capacity and electrification opportunities**, and that planning frameworks consider how infrastructure investment can support local economic and agricultural productivity outcomes.
11. **The Commonwealth, state and territory governments work collaboratively to provide greater certainty in land use planning frameworks**, balancing the growth of Australia's digital economy with the protection of productive agricultural land and regional communities, while ensuring local communities retain meaningful input into planning and approval processes.

Conclusion

Data centres will play an increasingly important role in Australia's economy and digital future. GrainGrowers does not oppose their development, nor the investment and innovation they may bring to regional Australia.

However, the growth of the sector should not be considered in isolation. For grain growers, the most significant impacts are likely to arise from the cumulative effects of data centres, renewable energy generation, transmission infrastructure and other competing land uses on agricultural land, regional communities and the resources that underpin food and fibre production.

As Australia seeks to attract investment in artificial intelligence and digital infrastructure, governments must ensure planning and regulatory frameworks appropriately recognise the strategic importance of agricultural land and food security. This will require nationally coordinated planning, improved data and transparency, meaningful engagement with growers and regional communities, and robust assessment of cumulative impacts.

With the right policy settings, Australia can support the growth of both its agricultural sector and its digital economy. Achieving this balance will be critical to ensuring emerging industries complement, rather than compromise, the long-term productivity and resilience of regional Australia.

Should we be able to provide further assistance or if there are any enquiries relating to this submission please contact Rebecca Hurst, Policy Manager – Sustainability and Natural Resource Management at rebecca.hurst@graingrowers.com.au.

Yours sincerely,



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