

From:

[REDACTED]

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[REDACTED]

[REDACTED]

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Dear Mr Mitchell

Your office is almost certainly hearing from constituents about data centres.

There is a version of this boom that Australians benefit from.

I'm a civil engineer, and I've spent the past year looking at what this country already has that almost no other country can match: world-class mining and tunnelling expertise, and more than 80,000 disused mine sites.

Our proposed national framework makes underground construction the default for large data centres, with disused mines the preferred location. Where a data centre has to be in a metropolitan area, the same rule applies — it goes underground. Above-ground builds remain possible, but by exception rather than as the standard.

That frees up what sits on top. Picture an innovation precinct directly above the data halls, or the hospitals, schools and research facilities the Government itself says need to be close to compute. Same land, built twice over — the proximity the Government is promising, without communities giving up above-ground land to get it.

Why it works:

- Data centres don't need daylight or fresh air. They need a controlled environment, and rock provides one — a steady 16–19°C year-round, which cuts the energy and water needed for cooling. Only a small operational team

and client meeting space need to sit at surface level, and even those can go below.

- Industry is already moving. BHP is examining new industrial uses for Mt Arthur ahead of its closure in 2030. Fortescue is seeking changes to Western Australian law so it can build and operate data centres in the Pilbara.
- Doing nothing has a price tag. Filling the Upper Hunter's mine voids alone is estimated at \$12–25 billion, far beyond the rehabilitation bonds held against them. Converting even a handful of voids turns a public liability into jobs and income for the regions that did the digging.

The framework also sets out recommendations on siting, cost recovery, community benefit and an independent complaints scheme for affected residents — drawn from what Lane Cove residents are dealing with right now.

Could I have 20 minutes? I'm happy to come to your electorate office or to Parliament House, and I can work around your schedule. If it's easier to start with an adviser, I'm glad to do that.

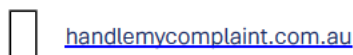
A short article summarising the framework is here: [Dig Deep: The Future of Data Centres in Australia](#)

Kind regards,

Jo Ucukalo

Founder and CEO

Handle My Complaint



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SUBMISSION

Build data centres underground

A net-positive framework for data centres in Australia

Senate Environment and Communications References Committee

Inquiry into artificial intelligence and data centres

Handle My Complaint

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21 September 2026

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About this submission

Australia is towards the start of a data centre buildout that will shape its landscape for the next half-century. The decisions being made now — where these facilities go, how they are built, and what the people living beside them experience — will lock in consequences that cannot be easily reversed.

This submission argues that governments must establish **urgent minimum standards**, while the infrastructure is still largely unbuilt, giving clear governance, a national siting hierarchy, and community-anchored rules for construction and operation.

The question before the Committee is not whether Australia should host data centre infrastructure. It is **how** to make sure they leave the communities that host them better off.

Today's planning rules assume a data centre is an above-ground industrial building. That assumption is wrong.

Data centres are not built for people. They are large data farms, and what they need — a stable temperature, security and isolation — makes them well suited to underground construction. Yet no Australian planning system has a category for an underground data centre, so that option has not yet been properly considered.

This submission proposes a national framework that:

- makes underground construction the default for data centres;
- gives priority to Australia's 80,000 disused mine sites; and
- reserves the land above underground facilities for the public, community and commercial uses governments want near this kind of infrastructure.

TERMS OF REFERENCE ADDRESSED

- **Parts A to F** — impacts on communities, industries, the environment, water and energy.
- **Part G** — related matters, including consumer cost recovery and complaint pathways.
- **Part H** — the effectiveness of existing regulatory frameworks, including the federal government's dealings with global data centre companies.
- **Parts I to K** — three practical options, responses to objections, and conclusion.

KEY TERMS

- **Data centre** — the physical facility, comprising land, buildings, power, cooling, water, fibre and security, that hosts digital workloads.
- **AI infrastructure** — the compute and software used to train, serve and operate AI systems, including accelerators, storage, networking and data pipelines.
- **Siting hierarchy** — the three-tier order of preference this submission proposes: disused mine voids (Tier 1), purpose-built tunnels and caverns (Tier 2), and above-ground construction (Tier 3).
- **PUE (power usage effectiveness)** — total facility energy divided by the energy delivered to the computing equipment. A PUE of 1.10 means 10 percent overhead for cooling and power delivery.
- **WUE (water usage effectiveness)** — litres of water consumed per kilowatt-hour of computing energy.

Handle My Complaint

Handle My Complaint is an Australian community advocacy organisation. We help Australians lodge and escalate claims and complaints against the organisations that affect their lives — energy retailers, telecommunications carriers, insurers, airlines, banks and government bodies — and we build and manage group member infrastructure for class actions.

That work gives us an unusual vantage point on the matters before this Committee. We see, in volume and in detail, what happens to households after a large infrastructure decision has been made and there is nowhere for the people living with it to go. We see what follows when siting rules are unclear, when community benefit is undefined, and when the cost of hosting infrastructure is carried locally while the value flows elsewhere. Part G is written from that casework.

The author

This submission is made by Jo Ucakalo, Founder and Chief Executive of Handle My Complaint. She is a civil engineer, holds a Bachelor of Financial Administration and is a member of the Australian Institute of Company Directors (GAICD).

Her career is the reason this submission argues from engineering rather than about it. It reflects direct experience of how large technical systems are planned, priced, approved and operated.

- **Civil engineering and underground construction.** As a civil engineer she worked on structural assets for Brisbane City Council and managed underground formwork and foundation approvals for London's City Hall — a landmark building on a constrained riverside site.
→ The practical foundation for the engineering case in Part C and the metropolitan construction proposed in Part E.
- **Electricity networks and investment.** At Ergon Energy she delivered a strategic innovation framework for Australia's largest wholly government-owned electricity company, and contributed to Energex's 2015–20 customer engagement regulatory proposal.
→ Working knowledge of how a network business plans, prices and justifies investment — the machinery that now decides who pays for data centre load growth, and the basis for Recommendation 14.
- **Capacity allocation under constraint.** Across transport and logistics — Virgin Australia, Toll Holdings, Maersk, and productivity reviews for Port Waratah Coal Services — she spent a decade on which users get scarce network capacity, in what order, and who carries the cost of the queue.
→ The grid question in Part G, asked in a different industry.
- **Telecommunications regulation.** She contributed to the NBN Complaint Handling Standard and served on the Australian Communications and Media Authority's Consumer Consultative Forum.
→ The National Broadband Network was built with public capital, connectivity now largely determines where data centres locate, and a publicly owned network is shut out of the one market its own infrastructure did most to create. That is Part A and Recommendation 17.
- **Precinct development and planning approvals.** At Charter Hall she was innovation consultant to the consortium bidding for the University of Melbourne's Carlton Connect Initiative — the redevelopment of the former Royal Women's Hospital site into a 52,000 square metre innovation precinct. She saw at close range what it takes to get a large technical development approved on constrained inner-city land: a planning scheme amendment, rezoning from a Public Use Zone to the Capital City Zone, a development plan overlay, height controls renegotiated from 47 metres to a 25–59 metre range,

public exhibition, an independent panel hearing and formal Council adoption, for a precinct that had to fit research, commercial, retail, public space and 450 student beds on 8,358 square metres.

→ The above-ground land trade-off of Part F, done commercially rather than theoretically — and the reason Part E asks for a planning category for underground data centres, because the absence of one is itself the barrier.

- **Standards and regulatory design.** Through Standards Australia she contributed to the revision of AS/NZS 10002 *Complaint Management Guidelines* and sits on the IT-041 Blockchain and Distributed Ledger Technologies Committee.
→ The distinction Part H draws between a published expectation and an enforceable requirement comes from that work, as does the complaints scheme proposed in Part G.
- **Industry support programmes.** She worked with the Queensland Government on the design and delivery of Advance Queensland, a \$180 million industry support package.
→ Direct experience of what conditions a government can attach to support for an emerging sector — which is what Recommendation 3 asks the federal government to do.
- **Start-ups and commercialisation.** She built and commercialised an enterprise complaints management platform, co-hosted SydStart when it was Australia's largest start-up conference, convened Startups in Parliament in 2015 to put founders, investors and members of parliament in one room, and has mentored founders through River City Labs and Queensland University of Technology.

She has more than ten years in public advocacy and more than 700 media appearances on consumer pricing, housing and utilities affordability.

Why this submission

Public debate about data centres in Australia has split into two camps. Industry says the infrastructure is essential and the objections are parochial. Communities say the infrastructure is intolerable where it is being put. Both are right.

The argument is not really about whether Australia should host this infrastructure. It is about *where* — and the answer both camps have overlooked is the **ground beneath them**.

This submission argues that underground construction should be Australia's default, and that the country's 80,000-plus disused mine sites should be preferred ahead of any above-ground location. It also addresses the consumer protection and complaints dimension our organisation is well placed to speak to.

Executive summary

Australia is well placed to host large-scale data centre infrastructure: proximity to Asia-Pacific markets, political stability, land in quantity, renewable energy potential, and two decades of public investment in telecommunications. The National Broadband Network (NBN), subsea cable landings and dense metropolitan fibre give the country a connectivity platform that industry consistently names as the top requirement.

That advantage is at risk. Not because of insufficient investment, but because community resistance is rising. Concerns about energy and water consumption, noise, diesel exhaust, visual bulk, property values, competing for tradespeople and neighbourhood character are intensifying. If the only story communities hear is disruption and cost, the social licence required for rapid deployment will erode faster than any approvals reform can repair.

What Australians are telling us: We are making decisions now which cannot be undone, under a framework that does not yet exist.

IN SHORT

Data centres are being sited as above-ground industrial buildings by default. The harms communities object to — noise, diesel exhaust, water use, visual bulk — do not come from the compute. They come from *where* the facility is built and *how*. Planning can fix that, without slowing the industry down.

How much, how fast

AEMO forecasts Australian data centres drawing 34 terawatt-hours a year by 2036 — roughly what every household in New South Wales and Victoria consumes today, and 13 percent of the electricity supplied to the National Electricity Market, up from 3 percent now. A year earlier, AEMO did not expect that milestone before 2050. Twelve months of observation moved it forward by fourteen years. There are 165 facilities operating and 225 in the pipeline, against 97 a year ago.

What nobody is asking

Every one of those 225 is being sited under a framework that assumes it needs to be constructed above-ground. Planning instruments in every Australian jurisdiction treat a data centre as an industrial building that goes on a piece of land — never **whether the facility needs to be above-ground at all**.

For most of them, it does not. These are not buildings made for people; they are data farms. A secure entry, a lunch room and a meeting room serve client visits and a small operations team — often twenty people or fewer once construction ends. The data halls need a steady temperature and clean air, not daylight. Above-ground buildings fight the outdoor climate. Underground facilities start closer to ideal conditions that already exists five to eight metres down, where Australian ground holds a steady 16 to 19 °C whatever the weather above it is doing.

Underground data centres have operated commercially in Norway, the United States and Sweden. Norway's Lefdal Mine Datacenter, has generated **no local complaints since opening in 2017**. Iron Mountain's underground facility in the United States markets itself as “the ultimate secure location”.

Australia has more of the raw material than any comparable country

More than **80,000 mine sites** across the country sit inactive and unrehabilitated, against roughly 10,000 in Canada. Each is a void that has already been excavated and already been paid for, usually with site access, haul roads and often transmission built for the mine itself.

Rehabilitating a single site can cost hundreds of millions of dollars, routinely more than the bond held against it. In 2021, the **New South Wales state budget included \$108 million over ten years to remediate the state's disused legacy mine sites**. Converting one turns a public liability into an asset that earns, and puts industrial work back into the communities that carried out the extraction.

And it has the workforce

World-leading mining expertise as well as a decade of **metropolitan rail and road tunnelling**, utility corridors has built a capability that transfers directly to underground data centres. Australia does not need to import underground expertise, we already have it.

The surface is then free for people

Once the data halls sit underground, the land above them is available for the uses governments say they want near this infrastructure: innovation and research precincts, hospitals, schools, community facilities and housing. **A community gets the economic activity and the public buildings, rather than having to choose between them.**

A policy problem, not an engineering one

The engineering is proven and in commercial operation. What is missing is a planning framework that treats underground construction as the default, and requires a proponent who wants construct above-ground to explain why underground will not do. We ask the Committee to recommend a national siting hierarchy:

- **Tier 1 — disused mine voids.** The preferred location for large facilities, in regional and remote Australia.
- **Tier 2 — purpose-built tunnels and caverns.** The default where a workload genuinely requires a metropolitan location. If it must be in the city, it should be under the city, not beside a primary school.
- **Tier 3 — above-ground construction.** Lawful, but an exception — available only where Tiers 1 and 2 are demonstrably unworkable on that site, and approved on conditions.

Around that hierarchy we propose a **Net-Positive Data Centre Framework** of three measures that work together: legislation creating a strong presumption in favour of underground construction, with public, community or housing uses on the surface; a tax, rebate or value-return scheme tied to electricity, water, internet and community benefit; and enabling NBN Co to sell fibre and interconnection into this market, so a public asset earns from demand its own network helped create.

Every cost this industry does not carry, a household does

Grid augmentation, water system upgrades, network charges, and the price effects of a very large load arriving faster than supply can follow — all lands on consumer bills. An Australian who believes a data centre has raised their power bill, dropped their water pressure or is keeping them awake at night has **no dedicated place to take that complaint**. We ask the Committee to fix this. Part G sets out how.

We set out twenty-four recommendations.

Recommendations

The twenty-four recommendations below form a single package, in eight groups. Each is cross-referenced to the Part of this submission that makes the case for it.

THE FRAMEWORK AT A GLANCE

TIER 1 Disused mine voids Preferred, for large facilities in regional and remote Australia	TIER 2 Tunnels and caverns The default where a city site is genuinely required	TIER 3 Above-ground construction An exception, justified in a published alternatives assessment
SUPPORTED BY enforceable community benefit · full cost recovery · energy and water reporting · a complaints scheme · NBN Co participation · value return · a national register of mine voids		

A. A national siting hierarchy

- Recommendation 1** Establish a national siting hierarchy for data centres above 30 MW: **Tier 1**, disused mine voids (preferred); **Tier 2**, purpose-built underground facilities (the default where a metropolitan location is genuinely required); and **Tier 3**, above-ground construction (an exception requiring justification). *Parts C, D, E*
- Recommendation 2** Require a proponent seeking approval for an above-ground data centre greater than 30 MW to publish an alternatives assessment showing why Tier 1 and Tier 2 options are not feasible. *Parts B, J*
- Recommendation 3** Amend the federal *Expectations of data centres and AI infrastructure developers* to include siting method, and make compliance with the hierarchy a condition of any government support, facilitation, procurement preference or investment agreement. *Part H*

B. Unlocking the mine void inventory

- Recommendation 4** Fund and publish a national register of disused mine voids assessed for data centre suitability — geotechnical stability, hydrology, transmission capacity, fibre and road access — led by Geoscience Australia with the states and territories. *Part D*
- Recommendation 5** Complete native title, cultural heritage assessment and Traditional Owner consultation before any site is listed on the register, so the register accelerates good projects rather than exposing Traditional Owners to a second round of extraction. *Part D*
- Recommendation 6** Amend mine rehabilitation bond arrangements so that a conversion which permanently stabilises and makes safe a disused void attracts bond credit proportionate to the rehabilitation obligation it discharges. *Part D*
- Recommendation 7** Support the convergence of mining and technology infrastructure, enabling resource companies to host data centres within legacy sites, as they already host renewable generation. *Part D*

C. Metropolitan and underground construction

- Recommendation 8** Amend state planning instruments to recognise underground data centres as a defined permitted use with a clear assessment pathway. *Part E*
- Recommendation 9** Direct Infrastructure Australia and state transport agencies to assess co-location of data centre caverns with committed tunnelling projects, so that access, spoil handling, ventilation and plant are shared rather than duplicated. *Part E*
- Recommendation 10** Reserve strategically located surface land released by an underground approval for housing, commercial or community infrastructure, not industrial use. *Part F*

D. Energy, water and environment

Recommendation 11 Mandate public, facility-level energy reporting for data centres above 5 MW — PUE, WUE and total annual consumption — so that efficiency claims made in planning applications can be verified.

Part H

Recommendation 12 Phase out potable water for data centre cooling, permitting residual use only where recycled or rainfall-independent sources are demonstrably unavailable, and extend IPART's water pricing review nationally. *Part C*

Recommendation 13 Require assessment of waste-heat recovery for any facility above 30 MW, surface or subsurface. *Part C*

E. Consumers, cost and complaints

Recommendation 14 Require data centre proponents to bear the full cost of grid and water augmentation attributable to their connection, publish cost-recovery arrangements, and require the Australian Energy Regulator to report annually on the extent to which data centre connection costs have been recovered from other customers. *Part G*

Recommendation 15 Establish a complaints and redress scheme for residents affected by data centre operations — noise, emissions, light, traffic, water pressure and grid-cost pass-through — modelled on existing industry ombudsman schemes, funded by industry levy, with binding determination powers and public reporting. *Part G*

Recommendation 16 Make community benefit obligations enforceable, monitored and publicly reported, rather than voluntary commitments made at approval and unexamined afterwards. *Parts G, H*

F. Fibre connectivity and the public asset

Recommendation 17 Enable NBN Co to provide fibre, dark fibre and interconnection services to data centres on transparent, non-discriminatory terms, so that a public asset earns revenue from this market — and require the Government to state whether it intends NBN Co to participate and, if not, on what advice that decision rests. *Parts A, I*

Recommendation 18 Require disclosure of connectivity arrangements and providers under the national framework, on the same basis as energy and water. *Part H*

G. Sharing the value of operations

Recommendation 19 Design a tax, levy, rebate or contractual value-return scheme so that a share of data centre operational value returns to governments or host communities — through electricity and water contributions, residential bill relief and local infrastructure funds — with annual public reporting. *Parts G, I*

Recommendation 20 Condition every decision conferring priority, accelerated assessment or grid access on a published, enforceable Community Benefit Agreement. *Part G*

Recommendation 21 Require employment claims in applications to distinguish construction from operational roles, with annual public reporting against operational employment commitments. *Part G*

H. Legislating the preference

Recommendation 22 Develop **urgent minimum standards** that require, or create a strong presumption, that new large-scale data centres be constructed underground or in an equivalent low-impact form, with above-ground land reserved for public, community or housing uses consistent with government co-location priorities.

Parts F, I

Recommendation 23 Give strong preference to underground and adaptive-reuse projects that use Australia's existing underground infrastructure and mining workforce. *Part I*

For the Committee

Recommendation 24 Examine the United States community benefit models cited in this submission, and consider the Lane Cove corridor as a demonstration site for underground-plus-public-surface model. *Parts B, G*

PART A

Australia's competitive position

IN SHORT

Australia's connectivity, land and energy make it an attractive place to build. What now decides competitiveness is how quickly a jurisdiction can secure consent that lasts — and that depends on where the facilities go.

A.1 Two decades of telecommunications investment

Australia enters the data centre build-out with structural advantages few jurisdictions can match. Two decades of public investment in telecommunications — above all the National Broadband Network (NBN) — have produced a national fibre platform. Dense metropolitan fibre, multiple subsea cable landings and sovereign network infrastructure give Australia scalable, low-latency capacity in a region where many competitors are constrained by geography, density or regulation. Industry analysis consistently identifies proximity to fibre and interconnection as a primary location factor, and Australia already has that infrastructure at national scale.

Yet the publicly owned network that did most to create this advantage is not a participant in the market it created. NBN Co does not sell fibre and interconnection to data centres on any clear, stated basis, and the Government has not said whether it intends it to. Part I returns to this.

A.2 Competitiveness now depends on community consent

Competitiveness is no longer defined only by fibre, power prices and land. It is defined by **speed to consent** and **durable social licence**. Where global operators can choose among several jurisdictions, the ability to secure fast, stable community acceptance is as much a competitive differentiator as connectivity or energy cost.

Australia's particular advantage is that it can host large-scale infrastructure without consuming the above-ground amenity that makes places liveable. Abundant land, strong renewable energy potential and world-class underground engineering allow it to locate large facilities outside dense urban cores — or, critically, beneath them. A framework that demonstrably shares value with host communities shortens approval timelines and strengthens the investment case for operators prepared to partner rather than extract.

RECOMMENDATIONS IN THIS PART

Rec 17 NBN Co in the data centre connectivity market

PART B

The scale of what is being forecast

IN SHORT

Forecast demand has jumped fourteen years in a single year of forecasting. The facilities are landing in established suburbs, beside homes and schools. And every objection communities raise traces back to one decision: **building data centres above-ground.**

Australia is not experiencing incremental growth in data centre development. It is experiencing a structural shift in the scale, speed and physical footprint of the infrastructure being proposed. The facilities before planning authorities today are orders of magnitude larger than those built five years ago, and they are being concentrated in suburbs that were never planned to host industrial loads of this size.

B.1 The load

AEMO's August 2026 forecasts show Australian data centres consuming 34 terawatt-hours a year by 2036 — 13 percent of National Electricity Market supply, up from 3 percent today. To put 34 TWh in context, every household in New South Wales and Victoria combined consumes about 38 TWh today.

How fast the forecast changed matters as much as the number itself. In 2025, AEMO did not expect data centres to reach 34 TWh until after 2050. A year later, it expects them to get there by 2036. Over the same year, the number of proposed facilities rose from 97 to 225.

When a forecast moves fourteen years in twelve months, it is not a safe basis for decisions that will last fifty. It means the industry is arriving faster than governments can adjust their rules — and that is exactly when construction mistakes get made that cannot be undone.

FIGURE 1 · THE SCALE OF WHAT IS BEING SITED

By 2036, Australian data centres will draw almost as much power as every home in NSW and Victoria

AEMO's 2026 forecast brought this milestone forward by more than a decade. Its 2025 outlook did not expect 34 TWh of data centre demand until some time after 2050. This is the load the Committee is deciding where to put.



Source: Australian Energy Market Operator forecasts as reported by J. Evans, 'Forecasts reveal effect of data centre rush on electricity grid', ABC News, 25 August 2026. Figure: Handle My Complaint.

Figure 1. AEMO's 2026 forecast of data centre electricity demand, against total household consumption in New South Wales and Victoria today.

B.2 Data centre locations

The facilities are not being distributed evenly. They cluster where power and fibre already exist, which in Australia means **established suburbs**.

Macquarie Park, Ryde. Five data centres operate and six more are proposed. Ryde Council warns the precinct is "dangerously nearing saturation point" and risks becoming a "residential dormitory and data centre wasteland". The Mayor has said councils have effectively been cut out of the planning process.

Kemps Creek, Western Sydney. AirTrunk's SYD4 proposal at Mamre Road would be Australia's first data centre above one gigawatt — 1.2 GW across 52 hectares, at a cost of more than \$5 billion. Its plant schedule shows what a "data centre" actually means at this scale.

WHAT ONE GIGAWATT LOOKS LIKE — AIRTRUNK SYD4, KEMPS CREEK

1.2 GW	across 52 hectares, at a cost above \$5 billion
846	diesel backup generators
728–936	cooling units
18 million L	of stored diesel
22.4 million L	of water a year
6	four-storey buildings, with lithium-ion battery storage

The adjacent Mamre Anglican School has raised concerns about air quality, noise, proximity and emergency access. Catholic Schools Parramatta Diocese asked that diesel testing occur outside school hours. Penrith City Council objected on the basis that the site is not suitable for development of that scale. In April 2026 the NSW EPA advised that the Environmental Impact Statement did not provide required information, and sought further data on air quality, noise, greenhouse gas emissions and waste storage.

A campus of this kind is not a building. It is an industrial precinct, and it can appear quickly.

Lane Cove West, Sydney. The third concentration, and the one the Committee will visit, is considered in detail in B.4.

B.3 What the objections are actually about

It is convenient to characterise community opposition as NIMBYism. It is more accurate, and more useful, to read it as a series of **specific, physical complaints** that share a **single cause**.

- 1. Noise** — the fans needed to keep compute from overheating.
- 2. Diesel exhaust** — backup generators at ground level, tested frequently.
- 3. Visual bulk** — enormous, windowless buildings out of scale with homes.
- 4. Water** — evaporative cooling drawing significant volumes.
- 5. Power bills** — large loads connecting to constrained networks, with the costs passed through.

Every one of these arises from the same decision: the facility was built above-ground, next to the people objecting. None is a consequence of the compute itself.

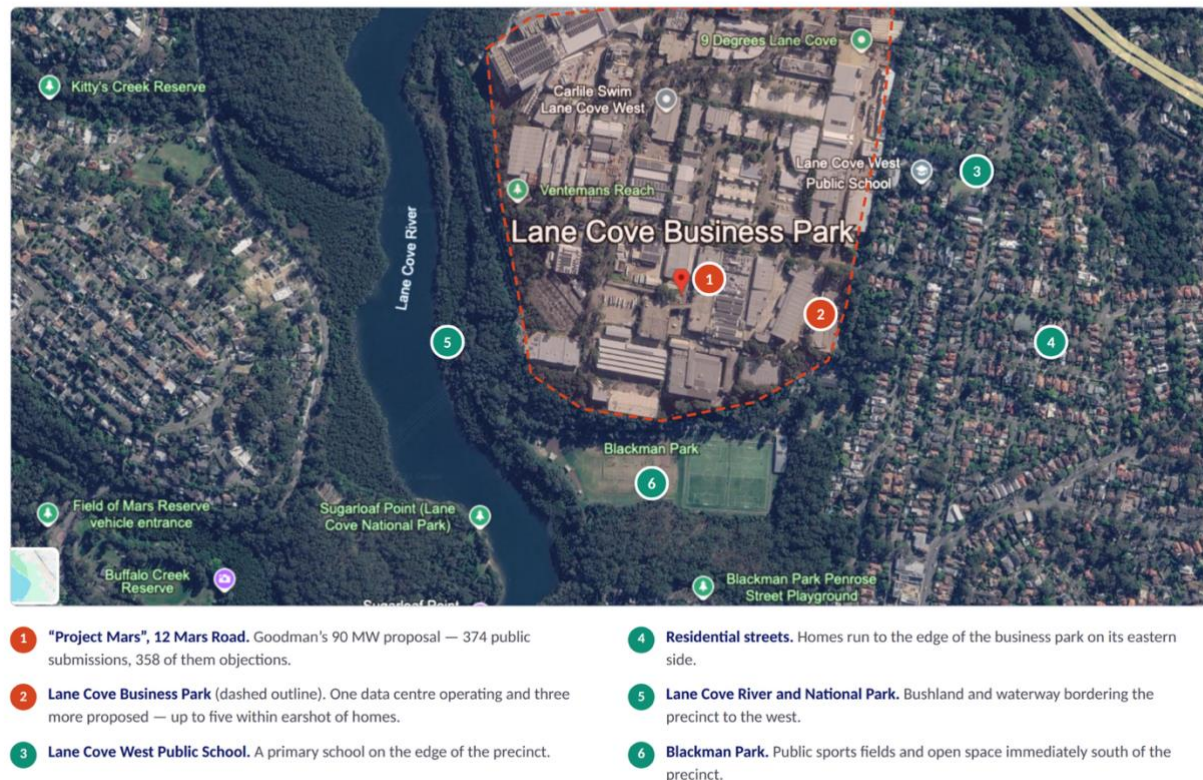
This is the central observation of this submission. **The community harms of data centres are overwhelmingly harms of siting and construction method, not of the technology.** They can be solved with an instrument governments already hold — **planning** — rather than by stopping an industry that no Australian government intends to stop, and that this submission does not propose to stop.

B.4 Case study: Lane Cove

FIGURE 2 · LANE COVE WEST, FROM ABOVE

A data centre precinct inside Australia's most liveable community

Lane Cove Business Park sits between the Lane Cove River, Lane Cove National Park, a primary school and residential streets. One data centre already operates here and three more are proposed, including Goodman's 90 MW "Project Mars". Under current rules, each is assessed as an above-ground industrial building.



Sources: Satellite imagery: Google Maps, accessed September 2026 — [insert the exact imagery attribution shown at the bottom of the Google Maps window]. Proposal details: "Project Mars: Lane Cove data centre faces backlash", The Post, 2 September 2026; V. Pengilly, ABC News, 26 July 2026. Precinct outline approximate. Annotations: Handle My Complaint.

Lane Cove, on Sydney's Lower North Shore, was named Australia's most liveable community in the 2025 Australian Liveability Census, with a Place Experience score of 80 out of 100 against a national average of 66. It sits about nine kilometres from the Sydney CBD, bordering the Lane Cove River and Lane Cove National Park, and residents rate its natural environment, safety, amenities, local businesses and neighbourhood character at the top of the national scale.

It is also a **digital and energy infrastructure node of national significance**. It was among the **first nbn Business Fibre Zones** in metropolitan Sydney. Its electrical infrastructure has deep roots: the **Lane Cove High Power Testing Station** was for decades the **only facility in the southern hemisphere** capable of high-current certification testing to ASTA standards, until Ausgrid closed it on 30 June 2021. The grid capacity and fibre that made Lane Cove an infrastructure node are the same things now drawing data centres to it, and it has become one of Sydney's most concentrated data centre locations.

That concentration has produced real tension. Goodman Group's 90 MW "Project Mars" proposal at 12 Mars Road attracted 374 public submissions, 358 of them objections. One data centre already operates in

the area and three more are proposed, so that up to five could run within earshot of homes, a school and the river. One resident told the ABC that a proposed facility would sit 160 metres from a primary school, and asked what the exhaust would mean for the children in it.

Under the present system, the community's only available move is objection. Lane Cove Council has no determinative role; the decision rests with the State. Residents are not asking for the compute to go away. They are asking for it not to be a few hundred metres from a primary school, above ground, with generators.

Under the siting hierarchy proposed here, the question at Lane Cove would be different:

Does this workload require a North Shore location — and if so, what is the underground option on or near this site?

Sydney has rock at depth. The answer might still be that no viable subsurface option exists, but that answer would have to be produced, published and tested, rather than never asked. That is what Recommendation 2 does. It does not ban anything.

The choice facing policy makers at Lane Cove is a choice they will face wherever fibre, power and demand converge near homes. They can keep adding above-ground industrial buildings, and risk the liveability that residents and the national census have recognised. Or they can put the data halls underground, keep the small human-facing functions at the surface where needed, and use the rest of the land for the housing, schools, health, innovation and green space that a river-and-park suburb nine kilometres from the city should continue to offer. Lane Cove's setting, its fibre status and its liveability ranking make it a natural demonstration site for the second choice.

The Committee is holding a public hearing in Lane Cove on 22 September 2026.

RECOMMENDATIONS IN THIS PART

- Rec 2**

Published alternatives assessment for above-ground proposals
- Rec 24**

Lane Cove as a demonstration site

PART C

Why underground

IN SHORT

A data centre is two things: a small workplace and a very large machine room. Only the first lends itself to above-ground infrastructure. Putting the second underground cuts cooling energy, water use, noise, exhaust and visual bulk at source, and makes the facility harder to damage or attack. It is already done commercially, and Australia already converts mine voids to other uses.

C.1 Not a building made for people

A data centre has two physical components, and they have almost nothing in common.

The first is a **human workplace**: a high-security entry, a reception, a lunch room, a meeting room for client visits and space for a small operations team — often twenty people or fewer once construction ends. These functions are small, and they can sit above or below ground.

The second is the **data hall**: racks, cooling plant, power systems, batteries and switchgear. It is by far the larger of the two, and it does not need fresh air, natural light or street frontage. It needs a controlled temperature, stable humidity, security and power.

Planning treats the whole facility as if it were the first kind of building. It is overwhelmingly the second. An above-ground data centre spends its working life fighting the outdoor climate; an underground one starts close to the conditions it needs.

C.2 Cooling, and what the ground does to it

Cooling is the single largest controllable energy cost in a data centre, and in Australia, with its temperature range, it is a harder problem than in most of the markets where the industry's design conventions were formed.

Professor Ian Johnston of the University of Melbourne describes the relevant physics plainly in the *Proceedings of the Royal Society of Victoria*:

“Below a depth of around 5 to 8 metres below the surface, the ground displays a temperature which is effectively constant and a degree or two above the weighted mean annual air temperature at that particular location. In Melbourne, the ground temperature at this depth is around 18°C.”

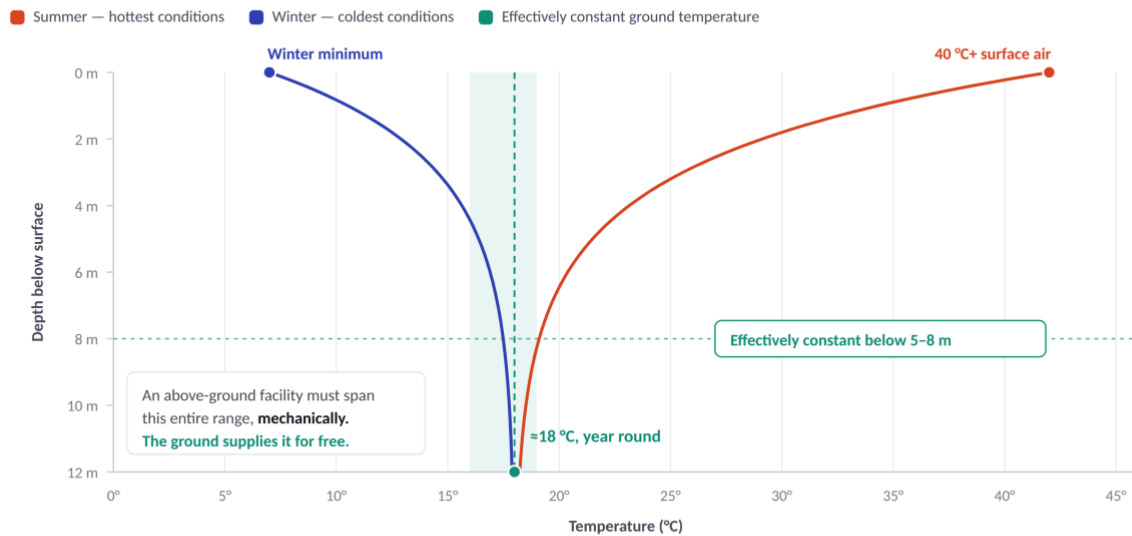
— Professor Ian Johnston, *Proceedings of the Royal Society of Victoria*, 2014

Across the Australian range relevant to data centres, that constant is usually 16 to 19 °C.

FIGURE 3 · THE COOLING PROBLEM, AND WHAT THE GROUND DOES TO IT

Below five to eight metres, the temperature stops moving

Australian surface air temperature swings through tens of degrees across a year. Ground temperature damps that swing out with depth, settling within a degree or two of the local mean annual air temperature and holding there — the thermal condition a data centre otherwise has to manufacture.



Source: I. Johnston, 'Geothermal energy: shallow sources', *Proceedings of the Royal Society of Victoria* 126(2), 2014, pp. 25–26 — ground temperature becomes effectively constant below roughly 5–8 m, sitting a degree or two above the weighted mean annual air temperature (about 18 °C in Melbourne; higher further north, lower further south). Curve shape is schematic, illustrating the damping described in that paper. Figure: Handle My Complaint.

Figure 3. Australian ground temperature against depth. Below roughly five to eight metres the annual swing disappears and the temperature holds at 16–19 °C.

Above ground, the same locations swing from single figures in winter to above 40 °C in inland summer. An above-ground facility must hold its server inlet temperature inside a narrow band across that entire range, using chillers, air handlers and, in some designs, evaporative cooling that consumes potable water. Every degree of difference is manufactured continuously, with energy.

An underground facility requires less cooling as **the rock supplies it**. The surrounding mass acts as a heat sink already close to the target temperature — passively, permanently, and without energy, water or maintenance. It is the same principle used in underground hydro plants and storage caverns, where the geology becomes part of the thermal-management system rather than a constraint on it. And it is not a marginal gain: it is the difference between Lefdal's 1.08 to 1.15 PUE and the design assumptions of a Western Sydney surface campus requiring up to 936 cooling units.

C.3 The 40 percent that never becomes a token

At The AI Summit Australia in Melbourne, NVIDIA presented its analysis of energy conversion in large AI facilities. Its framing of the global AI infrastructure race is **tokens per watt**: the winner is whoever converts the most available energy into useful computational output at the lowest cost.

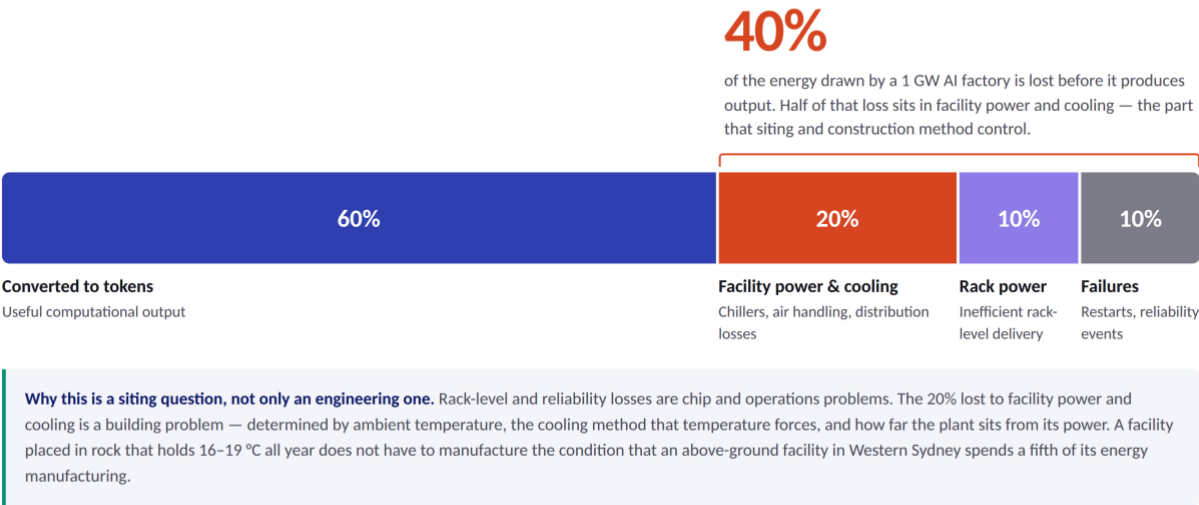
On NVIDIA's accounting, a one-gigawatt AI factory loses approximately 40 percent of the energy it consumes before that energy produces any output:

- 20 percent — facility power and cooling inefficiency
- 10 percent — inefficient rack power delivery
- 10 percent — failures, restarts and reliability events

FIGURE 4 · WHERE THE ENERGY GOES

In a one-gigawatt AI factory, about 40% of the energy never becomes a token

NVIDIA's framing of the AI infrastructure race is tokens per watt: the winner is whoever converts the most electricity into useful output. On its own accounting, the largest single slice of the loss is the building — facility power and cooling.



Source: NVIDIA presentation on AI factory energy consumption and tokens per watt, The AI Summit Australia, Melbourne, 2026. Component breakdown as presented: 20% facility power and cooling inefficiency, 10% inefficient rack power, 10% failures, restarts and reliability. Figure: Handle My Complaint.

Figure 4. Energy conversion in a one-gigawatt AI factory, on NVIDIA's own accounting. The largest single loss — facility power and cooling — is the one determined by siting and construction method.

The largest of those losses, facility power and cooling, is a **building problem**. It is determined by ambient temperature, cooling method, and the distance between plant and power source — that is, by where and how the facility is built. Which makes it, in part, a planning problem.

If NVIDIA's framing is right — and it is the framing the industry itself is promoting — then a national siting policy that systematically places facilities in a 16 to 19 °C environment is not an environmental concession. It is a competitiveness strategy. **Australia's claim to a role in global data centre infrastructure rests on energy resources and stable institutions. A structural advantage in cost per token would strengthen it considerably.**

C.4 Water

Sydney Water projects that data centres could account for up to 25 percent of the city's drinking water use by 2035, up from less than 1 percent of Greater Sydney's demand today. A single proposed expansion has been reported as using the daily equivalent of 1.5 Olympic swimming pools — enough water for 18,000 people. AirTrunk's Kemps Creek proposal specifies 22.4 million litres a year.

Evaporative cooling works well in hot, dry air, which describes much of inland Australia in summer, but it works by consuming water. A facility that is not fighting 40 °C ambient conditions needs far less of it. That is why Lefdal's water usage effectiveness is close to zero: its cooling circulates water rather than consuming it.

The NSW Data Centre Guidelines released in August 2026 require 100 percent recycled water, or a committed transition to rainfall-independent supply, for facilities seeking the expedited pathway, with full offset of interim potable use. This is a genuine improvement and we support it. But it addresses the source of the water rather than the demand for it. Recommendation 12 asks that potable cooling be phased out.

Recommendation 13 asks that waste-heat recovery be assessed, because heat dissipated into rock or into a district heating system is heat not dissipated into air using water.

C.5 Noise, visual impact and emissions

FIGURE 5 · THE SAME COMPUTE, TWO WAYS TO BUILD IT

A 52-hectare above-ground facility, or the ground that is already excavated



Sources: Plant schedule, site area, water and diesel figures for SYD4 (Mamre Road, Kemps Creek) from the State Significant Development application as reported by ACS Information Age, April 2026. Ground temperature from I. Johnston, ‘Geothermal energy: shallow sources’, Proceedings of the Royal Society of Victoria 126(2), 2014. Schematic; not to scale. Figure: Handle My Complaint.

Figure 5. The same compute, two ways to build it: a 52-hectare above-ground facility, against a facility placed in ground that has already been excavated. Schematic; not to scale.

When a data hall is placed underground, the objections set out in B.3 largely fall away — not through mitigation after the fact, but because of how the facility is built.

ON THE SURFACE	UNDERGROUND
Noise — fans and cooling plant radiate into surrounding streets	Contained within rock
Diesel exhaust — generators tested at grade, beside homes and schools	An engineered ventilation problem, not an ambient air-quality problem
Visual bulk — windowless buildings out of scale with homes	A portal, a ventilation structure and a switchyard
Cooling — chillers fight a 0–45 °C ambient range	Starts at 16–19 °C, year round
Water — evaporative cooling consumes potable supply	Close to zero consumption is achievable
Security — a fence, cameras and a guard post	Rock, and a small number of controlled portals
Land — tens of hectares taken from other uses	The surface is released for people (Part F)

C.6 Security and resilience

Data centres are critical infrastructure. They fall within the *Security of Critical Infrastructure Act 2018* regime, and the federal government's interest in their physical resilience is increasing.

An above-ground data centre is defended by a fence, a camera network and a guard post. An underground facility is defended by rock, with entry through a small number of controlled portals. Iron Mountain describes its underground Pennsylvania facility as protected by a vehicle inspection station, metal detectors, multi-factor entry, and the natural protection of 220 feet of limestone against tornadoes, hurricanes, earthquakes and flooding.

Australia's natural hazards are just as serious at ground level. Extreme heat, bushfire, flood and storm are all becoming more frequent, and all are surface phenomena. A facility holding the nation's health records, financial systems or defence-adjacent compute is more resilient beneath metres of rock than behind a fence in a flood-exposed industrial precinct. Where Australia is negotiating arrangements for sovereign compute hosted on Australian soil, the physical security of the site is a national security consideration, not only a commercial matter for the operator.

C.7 It already works

Australia would not be pioneering this. Underground and former-mine data centres have operated commercially for years.

Lefdal Mine Datacenter, Norway

Built inside a former olivine mine at Nordfjordeid, 60 metres below sea level and 700 metres inside a mountain.

- 120,000 m² across multiple levels; 80 MW operating, 120 MW in phase two, 200 MW planned
- Guaranteed PUE of 1.15, achieved 1.08–1.15; water usage effectiveness close to zero
- Cooled with 8 °C water from a 500-metre-deep fjord; powered entirely by hydro and wind

Operating since 2017, it has generated no local complaints — because there is nothing to see.

Iron Mountain WPA-1, Pennsylvania

220 feet (67 metres) below ground in a former limestone mine.

- 315-acre campus with 330,000 square feet of colocation space
- Geothermal cooling drawing on a 35-acre underground lake; a US Department of Energy Better Buildings Showcase Project
- Certified to ISO 9001, 27001, 50001, 14001 and 22301, FedRAMP, NIST 800-53, PCI-DSS and HIPAA

It meets the highest US government and healthcare data security standards while sitting in a hole in the ground.

Others include Bahnhof's Pionen facility in Stockholm, a Cold War bunker 100 feet down in granite; the SubTropolis Technology Center in Kansas City, in a limestone mine complex; Cavern Technologies in Kansas, in limestone caves 125 feet down; and Intacture in Trento, Italy, inside an active Alpine mine where it shares space with ongoing extraction. Their operators report the same construction advantages: an existing outer shell, fewer weather delays and lower structural costs.

Australia already repurposes mine voids — just not for this. The Kidston Pumped Storage Hydro Project in Far North Queensland converts a disused gold mine into 250 MW of long-duration storage. Green Gravity is developing gravitational energy storage in disused mine shafts. The engineering, regulatory and commercial pathway for turning an Australian mine void into energy infrastructure has been proven. What has not yet been done is to turn one into a data centre.

C.8 Why the planning system has missed the underground opportunity

Planning instruments in every Australian jurisdiction treat a data centre as an industrial building that goes on land. Proponents must answer which piece of land, and never whether the facility needs to be above-ground at all. That is a category error. A data centre is less an industrial building than an industrial load, and its physical form is far more flexible than the planning system assumes.

The consequence is that underground construction is not an engineering challenge in Australia. It is a policy choice that nobody has yet been asked to make. The country has the workforce, the mining capability, the geotechnical expertise, the mine void inventory and the planning authority. What it lacks is a siting hierarchy that makes underground the default and above-ground the exception. Parts D and E set out the two tiers of that hierarchy.

RECOMMENDATIONS IN THIS PART

- Rec 1** National siting hierarchy
- Rec 12** Phase out potable water cooling
- Rec 13** Waste-heat recovery assessment

PART D

The preferred option: Australia's 80,000 disused mine voids

IN SHORT

Australia holds more pre-excavated underground space than any comparable country. Even if only one site in a hundred is suitable, that is 800 candidates for a national pipeline of 225 facilities. Converting them discharges rehabilitation liabilities, uses infrastructure already built for the mines, and returns industrial work to regional towns. This is Tier 1.

D.1 The inventory

More than **80,000 mine sites** across Australia are inactive and unrehabilitated. The figure originates in a 2020 study by Monash University's Resources Trinity Group and has been repeated across the sector since. Canada, a country of comparable geology and mining history, has approximately 10,000.

FIGURE 6 · THE INVENTORY AUSTRALIA ALREADY OWNS

80,000 holes in the ground, and a decade of continuous megaproject tunnelling

The two inputs an underground data centre programme needs — excavated void and the capability to excavate more — Australia already holds in unusual quantity. Neither was created for this purpose. Together, they give Australia a world-leading opportunity in the data centre boom.

INACTIVE AND UNREHABILITATED MINE SITES



Bars to scale. Australian figure from a 2020 Monash University Resources Trinity Group study; Canadian figure "at least 10,000".

Excavated void, already paid for

Concentrated in the Hunter Valley, Kalgoorlie, Broken Hill and the Latrobe Valley — places with existing site access, haul roads and, in many cases, transmission built for the mine itself.

- Rehabilitation of a single mine can run to **hundreds of millions of dollars**, routinely exceeding the security bond held against it
- Australian precedents for repurposing already exist: **Kidston** pumped hydro in a former gold pit; **Green Gravity's** shaft-based storage
- Overseas, the same conversion is routine: **Lefdal** (Norway, olivine mine, 200 MW planned, PUE 1.08–1.15), **Iron Mountain WPA-1** (Pennsylvania, limestone mine, 220 ft down)

Capability to excavate more

A decade of continuous megaproject tunnelling has built a workforce, a machine fleet and a supply chain.

- **Sydney Metro** — Australia's largest public transport project, tunnelling continuously since 2014
- **WestConnex** and the **Western Harbour Tunnel**, Sydney
- **North East Link** and **Metro Tunnel**, Melbourne
- **Cross River Rail**, Brisbane

Sources: C. Coutinho, 'Mine the gap: Australia's 80,000 disused mines', *The Australian Mining Review*, 3 September 2024; D. Whittle, A. Miller and T. Werner, 'Cleaning up Australia's 80,000 disused mines is a huge job — but the payoffs can outweigh the costs', *The Conversation* (Monash University), citing a 2020 Monash Resources Trinity Group study and the Canadian comparison, Lefdal Mine Datacenter published specifications; Iron Mountain WPA-1 published specifications. Figure: Handle My Complaint.

Figure 6. The two inputs an underground data centre programme needs — excavated void, and the capability to excavate more.

The sites are concentrated in the Hunter Valley, Kalgoorlie, Broken Hill, the Latrobe Valley and equivalent districts in every state. They are not uniform. Many are small, shallow, flooded, unstable or otherwise unsuitable. Nobody currently knows how many of the 80,000 are viable, because nobody has yet looked with this use in mind. That is why Recommendation 4 asks for a systematic national assessment.

But the argument does not require most of them to be suitable. Australia's entire forecast 2036 data centre fleet could be accommodated in a very small number of large voids. If one percent of disused mines prove viable, there are 800 candidate sites for a pipeline of 225 facilities.

D.2 Why a disused mine is the right starting point

The excavation is done. The dominant cost objection to underground construction is the cost of digging. In a disused mine, that cost was incurred decades ago, by someone else, for another purpose. What remains is fit-out.

The thermal environment is free. At the depths typical of mine workings, the host rock is a functionally heat sink holding 16 to 19 °C, the condition an above-ground facility spends a large share of its energy manufacturing (Part C).

The infrastructure is largely there. Mines need heavy site access, haul roads, portals and declines, ventilation shafts, water management and substantial electrical supply. In many cases transmission was built to the mine. And the retirement of coal-fired generation in the Hunter and Latrobe Valleys is leaving behind exactly the grid connection capacity a large data centre needs, in exactly the regions where the voids are.

The communities already know industry. Mining districts are not residential suburbs discovering an industrial neighbour for the first time. Many regional towns are actively seeking the long-term employment a data centre would bring.

D.3 Turning a liability into an asset

Rehabilitating a single mine can cost hundreds of millions of dollars, and the obligation frequently exceeds the security bond held against the site. The shortfall becomes a long-term liability for governments and a permanent scar for the community.

New South Wales shows the scale of the gap. In 2021 the state held about \$3.3 billion in rehabilitation bonds across every mine in NSW. The Australia Institute estimated that filling the Upper Hunter's mine voids alone would cost \$12–25 billion. At the Russell Vale colliery near Wollongong, the bond was \$12.3 million against an estimated rehabilitation cost of \$215 million. For mines abandoned before modern bonds existed, taxpayers pay directly. The 2021 NSW Budget set aside \$108 million over ten years to remediate legacy mine sites, and the 2024–25 Budget added \$13.6 million over four years for mine rehabilitation.

Other states carry the same liability:

- **Queensland** committed \$70.6 million over four years from 2023–24 simply to monitor, manage and secure its abandoned mine sites.
- **Western Australia** pools the risk in its Mining Rehabilitation Fund, which operators pay into. The fund held about \$320.8 million at 30 June 2024 and paid out \$25.5 million that year. WA's abandoned mines inventory lists more than 30,000 shafts within 10 km of a town or 1 km of a major road.
- **Victoria's** Auditor-General found in 2020 that the \$813 million in bonds the state held could be \$361 million short of the real rehabilitation cost. It also found that 578 mines and quarries had no bond at all, and that there were about 19,000 locations in Victoria with evidence of historic mining.

Converting a void into a data centre reverses that equation. The void is stabilised and made safe, the rehabilitation obligation is discharged, the land becomes productive again, and the region gains an industrial employer. Recommendation 6 asks that bond arrangements recognise this, so that a conversion which permanently stabilises a void earns bond credit proportionate to the obligation it discharges.

It is one of the few infrastructure choices in which the cheapest option is also the safest, the most secure and the most acceptable to the community.

D.4 The mining companies are already moving

Australian resource companies have already shown they will extend from extraction into energy infrastructure — most visibly in renewable generation and green hydrogen alongside core operations. The logic that supports that move supports this one more strongly. A mining company already holds the void, the site access, the power infrastructure, the water management systems, the ventilation engineering, the underground safety systems and a workforce accustomed to operating in them. Every one of these is a prerequisite for an underground data centre, and a barrier to entry for a conventional developer.

The Case Studies below show two things. Major Australian miners already see data centres as a logical extension of their energy, land and engineering assets. And a clear national framework is needed before that happens at scale: if mining land and infrastructure are repurposed for data centres, the community benefit, connectivity and integrity conditions proposed in this submission should attach to those projects exactly as they would to any other.

Australia's advantage in data centre infrastructure is unlikely to come from cheaper capital or better chips than the United States. It could come from being the only developed economy with tens of thousands of pre-excavated, thermally stable sites — many already served by roads and transmission — and an industry that already knows how to operate in them. Recommendation 7 asks the Committee to examine this convergence directly.

CASE STUDY

Fortescue in the Pilbara: a miner moving into data centres

Own and operate Data centres run by the miner itself, not just power sold to others	Multi-gigawatt Scenarios reported near Port Hedland, involving global AI companies	Mining Act Reform sought so tenements can host data centres on a faster approvals path
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Western Australia shows the convergence is already under way. Fortescue is exploring owning and operating data centres in the Pilbara, powered by its own renewable network. Reporting in July 2026 described internal discussion of facilities at significant scale, including multi-gigawatt scenarios near Port Hedland involving global companies.

The approvals route matters as much as the scale. Western Australia’s *Mining Act* limits infrastructure on mining tenements to “mining-related purposes”, but offers a faster pathway than the *Land Administration Act* that ordinary data centre proponents must use. Fortescue is pressing for the Act to be changed so that its tenements can host data centres.

Source: N. Evans and J. Stensholt, ‘Fortescue pushes to change WA mining law for audacious data centre pivot’, *The Australian*, 29–30 July 2026.

CASE STUDY

The Hunter Valley: mine voids as the next data centre site

Hundreds of metres

Depth of some Hunter voids, several degrees cooler at the bottom

Mt Arthur, 2030

BHP closure, with new industrial uses for the land under consideration

\$10 billion

Data centre and two-gigawatt battery reported for Muswellbrook

The Hunter Valley is already being discussed. In June 2026 the *Newcastle Herald* reported that Simon Currie, co-founder of the clean energy advisory firm Energy Estate, sees the Hunter’s mining voids as a potential home for the next generation of data centres. Some are hundreds of metres deep, and the temperature at the bottom can be several degrees cooler than at the surface, reducing the water needed for cooling. “Most of them are close to the grid and it’s a lot cooler and stable down there so you don’t need as much water,” he said.

Mine closure planning is turning to the same question. Mr Currie reports that some mining companies are considering hosting data centres as part of their closure plans. BHP, which is scheduled to close its Mt Arthur coal mine in 2030, says it is working with government, industry and the community on how the land and existing infrastructure could support new industries and energy projects once mining ends. Separately, an international technology and infrastructure consortium has been reported to be preparing plans for a \$10 billion data centre and two-gigawatt battery at Muswellbrook, in the Upper Hunter.

“We need to bring the data to the power, not the other way around.”

Simon Currie, Energy Estate — this submission’s argument in a sentence

Source: M. Kelly, ‘Why the Hunter’s mining voids could become home to future data centres’, *Newcastle Herald*, 5 June 2026.

D.5 Traditional Owners first

Many disused mines were worked before native title was recognised in Australian law, and without the consent now expected of any new project. A national register of suitable voids must not become a map for a second round of extraction. Recommendation 5 asks that native title status, cultural heritage assessment and Traditional Owners consultation be completed before any site is listed, so that the register accelerates projects that have that support, rather than inviting proposals that do not.

RECOMMENDATIONS IN THIS PART

- Rec 1 National siting hierarchy — Tier 1
- Rec 4 National register of mine voids
- Rec 5 Native title and heritage before listing
- Rec 6 Rehabilitation bond credit
- Rec 7 Mining and data centre convergence

PART E

Underground in metropolitan areas

IN SHORT

Some workloads in data centres genuinely need a city. They should go under the city, not beside a school in it. Australia has just spent a decade proving it can build at that scale beneath its capitals. This is Tier 2.

E.1 Where a city site is genuinely required

Not every data centre can go to Kalgoorlie. Some workloads are latency-sensitive, some customers require physical proximity, and some operators need to sit inside an existing interconnection ecosystem. Simon Croft, Chief Executive of Industry and Policy at the Housing Industry Association, has made the same point: many data centres need access to major power supplies, telecommunications networks and customers, which naturally draws them toward cities.

We accept that. **Tier 2 exists because of it.**

Croft and the HIA have also called on governments to manage this expansion carefully so that it does not compromise urban liveability, and the evidence of what happens when it is not managed is already visible — in Lane Cove, Macquarie Park, Cremorne, Port Melbourne, Yarraville, Ultimo and Alexandria, residents are living with industrial impacts they never expected. Where a data centre genuinely requires a metropolitan location, our position is not that it should be refused. It is that it should go *under* the city rather than beside a primary school in it.

E.2 The capability already exists

Australia has spent more than a decade in continuous megaproject tunnelling. The boom has required the design, excavation and fit-out of tens of kilometres of tunnels and stations beneath live cities, harbours and rivers. Among them:

- **Sydney Metro West** — a world-first lining erector machine for mined service tunnels
- **Melbourne Metro Tunnel** — cathedral-scale underground stations beneath a dense CBD
- **Western Harbour Tunnel** — the largest tunnel boring machines in the southern hemisphere, 15.7 metres in diameter and assembled underground

The same period has delivered WestConnex in Sydney, North East Link in Melbourne and Cross River Rail in Brisbane.

That work has built a workforce, a machine fleet, a geotechnical consulting sector and a supply chain of a depth few comparable economies possess. Australian engineers and contractors routinely deliver complex underground works to international standards of precision, safety and quality. None of it appeared overnight. It rests on generations of mining expertise — shaft sinking, declines, ground support, ventilation and controlled environments kilometres below the surface — carried across into civil and urban tunnelling.

A metropolitan data centre uses the same engineering. It can be built as a mined cavern, a bored tunnel, a cut-and-cover structure, or a hybrid with surface access points — the forms already used for metro stations, underground substations, road and rail tunnels and water infrastructure caverns. Cooling, ventilation,

access and emergency egress are well-understood design problems, and Australia has solved them repeatedly. It does not need to import underground expertise. We already have it.

An underground data centre programme would give continuity of demand to a national capability that Australia has spent decades and many billions of dollars building.

E.3 Building alongside the tunnels

It would also be cheaper to build alongside that work than apart from it. When a tunnel is being driven, the expensive parts — access, spoil handling, ventilation, mobilised plant and specialist labour — are already in place. The marginal cost of excavating a cavern beside a tunnel already under construction is a fraction of the cost of a standalone excavation.

That saving is only available if someone looks for it at the right moment, and the moment is early: once a tunnel is being driven, it is too late to add a cavern cheaply. The Western Harbour Tunnel, whose boring machines began work in June 2026, is an example; the programmes that follow it are the real opportunity. Recommendation 9 asks that co-location be assessed as a matter of course whenever a major tunnelling project is committed, rather than left to proponents to consider only when it suits them.

E.4 A planning category for underground data centres

A proponent who wanted to build the Australian equivalent of Lefdal would find no clear assessment pathway. There is no defined permitted use for an underground data centre in any state planning instrument, and the absence of a category is itself a disincentive: faced with an uncertain underground approval and a well-trodden above-ground one, a rational developer chooses above-ground.

The author's experience on the Carlton Connect Initiative illustrates what the planning system can do when it has to. That precinct required a planning scheme amendment, rezoning, a development plan overlay, renegotiated height controls, public exhibition, an independent panel hearing and Council adoption — a demanding process, but a known one. Recommendation 8 asks that the same certainty be built for underground data centres: a defined use with a defined pathway, so that the better option is also the easier one to get approved.

RECOMMENDATIONS IN THIS PART

- Rec 1** National siting hierarchy — Tier 2
- Rec 8** Planning category for underground data centres
- Rec 9** Co-location with committed tunnelling

PART F

What above-ground is for

IN SHORT

Uses that need daylight, street frontage, people and community access should get priority above-ground. Uses that need none of those should go underground. A data centre needs none of them; a house, a school, a hospital and a park need all of them. Housing and development industry bodies are already warning that data centres are competing for the above-ground land Australia needs for homes.

F.1 The competition for land

Above-ground land in Australian cities is one of the country's scarcest public resources. It is where governments want hospitals, schools, innovation precincts, research facilities, commercial activity, housing and community infrastructure. A single 50 to 100 MW above-ground data centre can occupy land that could otherwise hold hundreds of homes, a school, a medical centre, a university research building or a mixed-use precinct.

Industry bodies are already saying so. Simon Croft of the Housing Industry Association has described data centre demand increasingly targeting the same land governments have identified for future housing and mixed-use communities. His example is the acquisition of land at Lovely Banks, near Geelong, capable of supporting thousands of homes. He has also warned that metropolitan data centres can drive suburban sprawl: if land and infrastructure inside established urban areas go to data centres rather than housing, residential development is pushed further from jobs, transport and services.

Oscar Stanley, National President of the Urban Development Institute of Australia, frames the issue the same way. Australia needs both data centres and housing, but only coordinated land-use and infrastructure planning can ensure that data centre growth does not come at the expense of households. Planning systems, he argues, should establish a clear hierarchy of uses on strategic landholdings, particularly where public investment has been significant.

We agree, and this submission proposes exactly such a hierarchy:

Uses that require daylight, street frontage, human occupation and community access get priority for above-ground. Uses that require none of those things go underground.

A data centre requires none of them. A house, a school, a hospital and a park require all of them.

F.2 The opportunity above

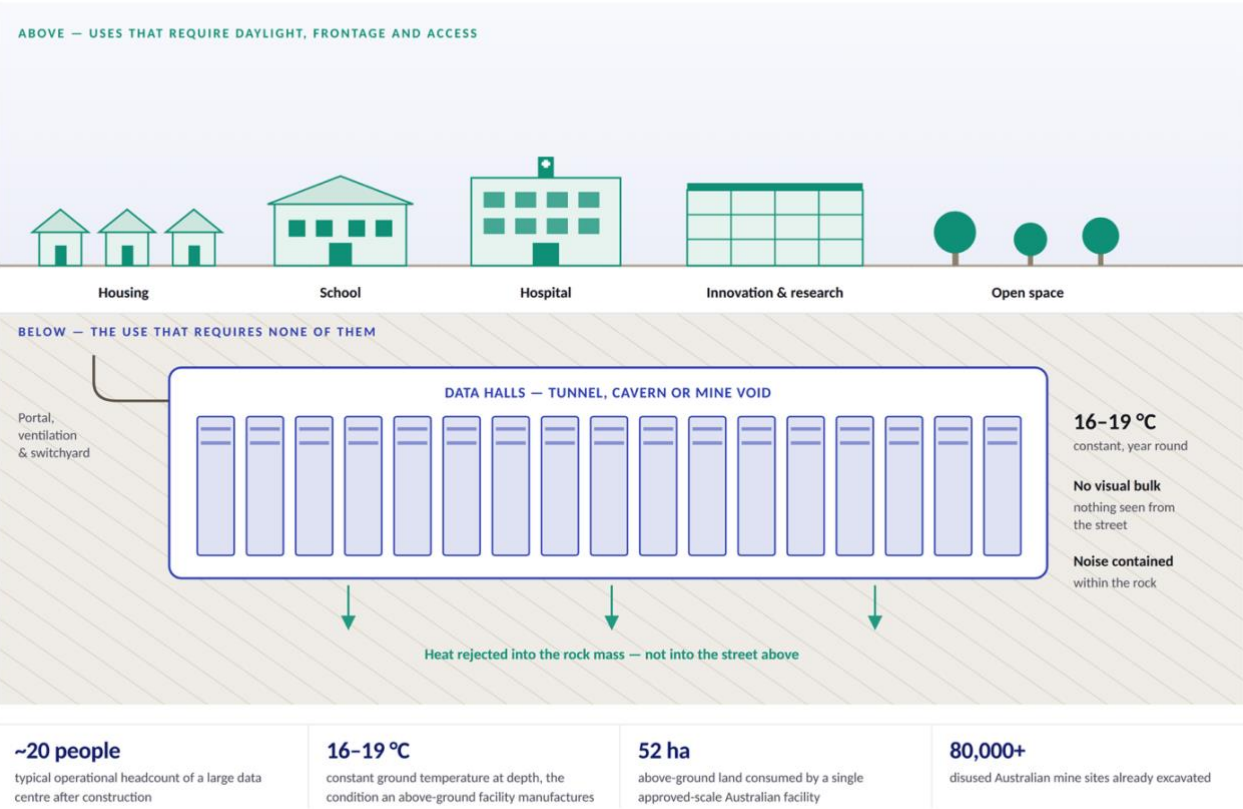
Governments have repeatedly said that data centres should sit near users and near innovation ecosystems. As things stand, communities experience them as industrial neighbours: large boxes that consume power and water, create disturbance and return little. **An underground model delivers the proximity governments want without the surface industrialisation that drives community resistance.**

Imagine a precinct where the compute powering research, digital health, advanced manufacturing and sovereign cloud services sits beneath the ground. Above it: an innovation and research campus linked to universities and hospitals; medium-density housing within walking distance of jobs and services; a primary school and community facilities; green roofs, public open space and active transport links. The machines that need neither light nor air occupy the controlled environment below. The people who need light, air, parks and proximity occupy the surface.

FIGURE 7 · PEOPLE ABOVE, DATA CENTRES BELOW

The uses that need daylight go above ground. The use that does not goes underground.

A data centre needs stable temperature, physical security and isolation from neighbours. A hospital, a school, a park and a home need light, air, frontage and access. Only one of those lists describes excavated ground — and at present it is the other one that gets built above ground.



Sources: Ground temperature from I. Johnston, 'Geothermal energy: shallow sources', Proceedings of the Royal Society of Victoria 126(2), 2014. Site area from the SYD4 State Significant Development application (Mamre Road, Kemps Creek) as reported by ACS Information Age, April 2026. Mine site count from The Australian Mining Review (2024) and Monash University Resources Trinity Group (2020). Schematic; not to scale, and not a proposal for any identified site. Figure: Handle My Complaint.

Figure 7. People above, data centres below — the above-ground uses that need daylight, frontage and access, over the one use that needs none of them.

This is not a trade-off between technology infrastructure and liveability. It is the integration of both. When capacity sits under an innovation precinct rather than beside a residential street, the precinct becomes a magnet rather than a deterrent. Housing above or alongside puts workers and families inside the ecosystem rather than commuting into it, and schools and community facilities complete a 15-minute neighbourhood that is also a digital infrastructure node.

F.3 Making above-ground land work hard

Large precincts — innovation districts, university expansions, hospital redevelopments — constantly face the problem of fitting several high-value uses onto limited land. The Carlton Connect Initiative (see *The author*) had to fit research, commercial, retail, public space and student accommodation onto 8,358 square metres, and needed a full planning scheme amendment to do it. That is the level of effort it takes to make above-ground land work hard.

Placing the data centres underground removes the need to negotiate surface amenity away. It lets governments keep land for the uses that return the greatest public value. Two recommendations secure that outcome: Recommendation 10, that land released by an underground approval be reserved for housing, commercial or community infrastructure rather than returned to industrial use; and Recommendation 22, that the legislation expected in early 2027 create a strong presumption in favour of underground construction with public uses above-ground.

RECOMMENDATIONS IN THIS PART

- Rec 10** Released surface land reserved for public use
- Rec 22** Legislate the underground presumption

PART G

Who pays, and who benefits

IN SHORT

Every cost this industry does not carry, a household does. Today the cost of connecting very large loads can be recovered from everyone on the network, residents have nowhere to take a complaint, and community benefit is voluntary. Each of these can be fixed with tools Australia already uses in other industries.

G.1 The costs fall on households unless policy prevents it

Data centres connect to the same networks households pay for. When a large new load connects to the grid, substations must be upgraded, feeders reinforced, transformers replaced and transmission capacity expanded. When it connects to a municipal water system, pumping stations, trunk mains, pressure zones and often treatment capacity must follow. If the proponent does not pay the full cost of that augmentation, the residual is recovered from everyone already connected — through network tariffs and water bills.

This is the ordinary machinery of every regulated network business. It was designed for incremental load growth, not for 50 to 1,200 MW industrial loads arriving in clusters. The result is predictable: residential bills rise, small businesses absorb the increases, and communities end up subsidising private operators. Residents who notice their water pressure dropping have no way of knowing whether a nearby data centre is the cause. Communities hosting these facilities therefore carry a double burden — the physical impact of the facility, and the financial impact of network upgrades they did not choose.

New South Wales has begun to respond. Its Electricity Infrastructure Investment Amendment Bill 2026 and the IPART review of water pricing are both attempts to allocate augmentation costs to the loads that cause them. They are a state solution to a national problem. The same issue arises in Victoria, Queensland, South Australia and Western Australia, under different regulatory arrangements and with no consistent treatment.

Recommendation 14 asks for two things: that proponents bear the full attributable cost of their connection, and that the Australian Energy Regulator report each year on how much data centre connection cost has in fact been recovered from other customers.

G.2 Australians affected by a data centre have nowhere to go

Almost every industry that affects households at scale has an independent, free complaints scheme.

IF ...	YOU CAN GO TO ...
Your energy retailer overcharges you	Your state energy and water ombudsman
Your telco fails you	The Telecommunications Industry Ombudsman
Your bank or insurer mistreats you	The Australian Financial Complaints Authority
Aircraft noise keeps you awake	The Aircraft Noise Ombudsman
A data centre's generators keep you awake	Nowhere

Each of those schemes is industry-funded, free to the consumer, and able to make binding determinations. If a data centre a few hundred metres from your home runs its generators during testing and you cannot sleep, your options are to complain to the operator, to a council that had no role in approving it, or to a state agency that did. There is no scheme, no binding determination, no free pathway and no aggregated public record.

That matters beyond individual redress, because a complaints scheme generates data. Within a year it would show which facilities generate complaints, about what, and how many. Currently, the impact of an operating data centre is asserted in an Environmental Impact Statement before construction and not measured afterwards, which means future approval decision is made with no better evidence than the last.

Recommendation 15 asks for a complaints scheme modelled on existing ombudsman arrangements: industry-funded by levy, covering noise, emissions, light, traffic, water pressure and grid-cost pass-through, with binding determination powers and public reporting.

It is worth being clear about one thing. This recommendation is largely unnecessary for Tier 1 facilities, and considerably less necessary for Tier 2. A facility in a mine void 400 kilometres from the nearest suburb does not generate noise complaints. The strongest argument for the siting hierarchy is that it prevents complaints, rather than requiring an authority to handle them.

G.3 Sharing the value

Data centres generate significant operational value. Under current settings, almost all of it flows to privately-owned operators while host communities carry the physical and financial impact. A net-positive framework returns a share of it. Recommendation 19 asks for a tax, levy, rebate or contractual value-return scheme, with the proceeds directed to electricity and water bill relief, local infrastructure funds and community benefit programmes, and reported publicly each year.

Three further safeguards make the benefit real. Recommendation 20 asks that any decision conferring priority, accelerated assessment or grid access be conditional on a published, enforceable Community Benefit Agreement. Recommendation 21 asks that employment claims distinguish construction jobs from ongoing operational roles, because a facility run by twenty people should not be approved on the strength of the workforce that built it. And Recommendation 16 asks that community benefit commitments made at approval be enforceable, monitored and reported, rather than made once and never examined again.

G.4 What the United States shows

Structured community benefit already works at scale in the United States.

Community benefit in practice — United States

Richland Parish, Louisiana (Meta) Meta reports teacher bonuses of up to US\$50,000, US\$1.6 billion in contracts to Louisiana businesses, more than US\$1 billion in local infrastructure and a US\$5 million scholarship fund— in a community of about 20,000 people.

Ellendale, North Dakota Households anticipate electricity bill reductions of roughly US\$250 a year once data centre project is fully built.

Georgia and Michigan Georgia's regulator froze Georgia Power's base rates until at least 2028 while bringing in new rules for large users such as data centres. Michigan's regulator has required that data centre connections not be subsidised by other customers.

None of this requires new policy invention in Australia. The equivalent tools are long-term power purchase or connection agreements conditioned on community benefit contributions; development consents that require enforceable Community Benefit Agreements; grid connection priority reserved for projects meeting higher community benefit thresholds; and employment reporting that separates construction from operation. They are standard instruments. They have simply not yet been applied to data centres.

G.5 Social licence comes from design, not messaging

The Minister for Resources, Madeleine King, has put the risk plainly:

“If these data centres do not have social licence and community acceptance, Australia could experience a very short-term boom where nobody is really happy.”

— The Hon Madeleine King MP, Minister for Resources

We agree, and we would add this. Social licence is not a communications exercise. It is what happens when the thing being built does not impose costs on people who receive none of the benefit.

A facility in a repurposed mine void — employing local people, discharging a rehabilitation liability the state was carrying, invisible from every street and audible from none — has social licence structurally. A facility that places 846 diesel generators on 52 hectares beside a school, or a windowless hall a few hundred metres from a primary school on the Lower North Shore, does not, and no amount of community consultation will manufacture it.

RECOMMENDATIONS IN THIS PART

Rec 14	Full cost recovery, with AER reporting
Rec 15	Data centre complaints scheme
Rec 16	Enforceable community benefit
Rec 19	Value-return scheme
Rec 20	Community Benefit Agreements as a condition of priority
Rec 21	Construction versus operational employment
Rec 24	Examine US community benefit models

PART H

The regulatory framework

IN SHORT

Current settings rely on expectations, guidelines and voluntary commitments. They regulate a facility once it has been proposed; nothing regulates the decision that produced it. A net-positive framework moves from expectation to requirement.

Australia's regulatory settings were built for a world in which data centres were small, scattered and largely invisible. Today's facilities — 50 MW, 90 MW, 300 MW, 1.2 GW — are orders of magnitude larger, and so are their impacts. Yet the framework still relies on instruments that create no obligation, provide no redress and do not ensure that value is shared.

TODAY: EXPECTATION	PROPOSED: REQUIREMENT
Voluntary	Mandatory
Unenforceable, with no penalties	Enforceable, and backed by penalties
Unreported after approval	Reported and independently auditable
No redress for residents	A complaints scheme with binding determinations
Silent on siting method	A siting hierarchy, with alternatives assessed and published

H.1 What exists

The federal government has published *Expectations of data centres and AI infrastructure developers*. They are what their title says: expectations — voluntary, unenforced, and silent on siting method.

New South Wales released its *Data Centre Policy Framework and Guidelines* on 17 August 2026, the first comprehensive state policy of its kind, for a jurisdiction with more than 60 facilities operating or under construction and 20 State Significant Development projects worth \$51.4 billion in the pipeline. It rests on three pillars: performance standards across six principles, with a 75-day assessment commitment for compliant proposals; the Electricity Infrastructure Investment Amendment Bill 2026, enabling large-load access schemes for facilities above 5 MW; and an IPART review of water pricing. Its premise is faster approvals in exchange for developers internalising infrastructure, energy and community costs — or, in the NSW Treasurer's words, data centre builders paying their fair share so that households do not.

Other states are signalling in the same direction.

Western Australia's position is that Western Australians must benefit from any data centre investment, and that facilities must be appropriately located, use resources responsibly and deliver tangible community benefit.

South Australia has said that large data centres bring material energy, water and land-use impacts requiring careful management, and that it will continue to advocate for a clear national framework.

H.2 What is missing

The decision that produces the facility. Every instrument above takes a proposal as given — a building, of a stated size, on a stated piece of land — and then conditions it. Efficiency standards, water offsets, community benefit and cost recovery are all applied after the fundamental question has been settled. Environmental assessment routinely requires an analysis of alternatives, yet nothing in Australian law or policy expresses any preference between a mine void in the Hunter, a cavern under Sydney and a slab in Lane Cove. All three are simply development applications. The siting hierarchy supplies the alternatives analysis that is missing, and Recommendation 2 requires it to be published.

Any check after approval. Planning approvals assess noise, air quality, water use, traffic, design and construction method. Once a facility is built, there is no systematic mechanism to verify whether its operating performance matches what was approved. Noise, water use, diesel testing, emissions and grid impact can all exceed what was assessed without consequence. Recommendation 11 asks for mandatory public reporting of PUE, WUE and total consumption.

Enforceable benefit. Community benefit is voluntary and unmonitored. As the Climate Council's senior researcher Genevieve Henderson has observed of the NSW framework, protecting households from higher bills and more climate pollution cannot rely on voluntary industry action; it must be mandatory. Recommendation 16 applies that principle.

Local government. State Significant Development pathways and the new 75-day commitment both operate above councils. Ryde's Mayor has said councils were effectively cut out; Lane Cove Council has no determinative role over a proposal that drew 358 objections in its own area. Whatever the merits of centralised assessment for speed, it removes the only tier of government with a direct accountability relationship to affected residents — which is why an independent complaints scheme (Recommendation 15) matters more.

H.3 The federal government's dealings with data centre companies

The global companies building in Australia operate elsewhere under enforceable obligations, mandatory reporting, compliance audits and penalties for breach. Australia's reliance on expectations and voluntary commitments is out of step with that practice. It weakens the country's negotiating position and leaves communities exposed.

Where the federal government confers support, facilitation, procurement preference or an investment agreement, it holds real leverage. Recommendation 3 asks that siting method become a term of those arrangements. Recommendation 18 asks that connectivity arrangements be disclosed on the same basis as energy and water. And where arrangements involve sovereign compute on Australian soil, the physical security of the site (Part C.6) should be a condition, not an afterthought.

H.4 What a national framework must do

Consolidated, the framework this submission proposes has eight elements, each tied to a recommendation:

- 1. A siting hierarchy** — underground as the default, above-ground as the exception (Recommendations 1, 22).
- 2. Published alternatives assessments** — for any above-ground proposal greater than 30 MW (Recommendation 2).
- 3. Operational reporting** — PUE, WUE, total consumption and diesel testing (Recommendation 11).

- 4. **Full cost recovery** — proponents pay for the grid and water augmentation they cause (Recommendation 14).
- 5. **Enforceable community benefit** — agreements that are monitored and publicly reported (Recommendations 16, 20).
- 6. **A complaints scheme** — industry-funded, with binding determinations (Recommendation 15).
- 7. **Connectivity disclosure and NBN Co participation** (Recommendations 17, 18).
- 8. **Value return** — a tax, levy, rebate or contractual scheme (Recommendation 19).

RECOMMENDATIONS IN THIS PART

Rec 3	Siting method in the federal Expectations
Rec 11	Facility-level energy reporting
Rec 16	Enforceable community benefit
Rec 18	Connectivity disclosure

PART I

Three practical options for a net-positive outcome

Australia can make data centre development net-positive through three options. Each can be pursued on its own; together they form a coherent national framework. Each relies on existing engineering capability, established regulatory machinery and proven international models.

I.1 Build underground by default

The first and most important option is to change the default. Above-ground construction should no longer be assumed; the siting hierarchy set out in Parts D and E should replace that assumption.

The legislation expected in early 2027 is the vehicle. It should require, or create a strong presumption in favour of, underground or equivalent low-impact construction for new large-scale data centres; reserve above-ground land for public, commercial, community or housing uses; and name the surface uses it has in mind — hospitals, schools, innovation hubs, research precincts, community facilities and homes (Recommendation 22). Preferential assessment pathways should recognise projects that use Australia's existing underground infrastructure and mining workforce (Recommendation 23).

This directly supports the Government's stated aim of placing data centres near users and innovation ecosystems. An underground model delivers that proximity without industrialising above-ground land. The default becomes public value above, data centres below.

I.2 Share operational value with communities

Under current settings, the value data centres generate flows almost entirely to privately-owned operators while communities carry the impact. A value-return mechanism — a tax, levy, rebate or contractual scheme — would direct a share of it to electricity and water bill relief, local infrastructure funds, community programmes, precinct development and environmental mitigation (Recommendation 19). It aligns incentives, strengthens social licence, and gives host communities a reason to welcome the next facility rather than fight it.

I.3 Use public assets to strengthen national capability

Australia has invested billions in public telecommunications infrastructure. Enabling NBN Co to provide fibre, dark fibre and interconnection to data centres on transparent, non-discriminatory terms would let a public asset earn revenue from the market it did most to create, add competition, strengthen resilience, and support regional data centre development near the mine voids of Tier 1 (Recommendation 17). We ask the Committee to recommend that the Government state clearly whether it intends NBN Co to participate in this market and, if not, on what advice that decision rests.

Underground construction reduces the harm. Value return makes it fair.

NBN Co participation turns public investment into public return. Together they make data centres something communities welcome rather than tolerate.

RECOMMENDATIONS IN THIS PART

- Rec 17** NBN Co in the data centre connectivity market
- Rec 19** Value-return scheme
- Rec 22** Legislate the underground presumption
- Rec 23** Preference for underground and adaptive reuse

PART J

Objections to this proposal

To assist the Committee, we set out the principal objections to underground construction, and our responses.

J.1 "It costs more"

For a purpose-built metropolitan cavern, yes — in capital terms. A cavern costs more to excavate than a slab costs to pour.

The honest framing is that a Tier 2 facility trades higher capital cost for lower operating energy cost, higher resilience, and the removal of externalities that above-ground facilities impose on people who did not consent to them and are not compensated for them. The comparison currently made is capital cost against capital cost, ignoring the energy saved by a 16 to 19 °C thermal environment for the life of the facility, the resilience value, and the costs the above-ground option transfers to its neighbours. The current framework never requires that trade to be evaluated, because it never requires the alternative to be assessed. That is the specific defect Recommendation 2 addresses.

For Tier 1, the capital argument substantially reverses. The excavation cost was sunk by a prior operator, and conversion may discharge a rehabilitation liability currently sitting unfunded on a state balance sheet.

J.2 "Retrofitting a mine is complex"

It is. Ventilation, humidity control, water management, ground support and emergency egress in a converted void are non-trivial engineering problems. They are also the exact disciplines in which Australian mining engineering leads the world, and they have been solved commercially at Lefdal, Iron Mountain and elsewhere. Recommendation 4 exists because suitability must be assessed site by site, not assumed.

J.3 "Humidity and ventilation are harder underground"

True, and this is the most substantive technical objection. Operating facilities manage it. It is a design cost to be weighed against a structural cooling advantage, not a disqualifier.

J.4 "You cannot scale vertically"

Also true. Underground facilities expand laterally, along drives and levels, rather than upward. Lefdal's 120,000 square metres across multiple levels suggests the constraint binds at a scale well beyond most Australian proposals.

J.5 "Latency requires proximity"

For some workloads it does. That is what Tier 2 is for — and Tier 2 is underground too (Part E).

J.6 "The mines are in the wrong places"

Some are. Others are in the Hunter and Latrobe Valleys, where retiring coal generation is leaving behind precisely the transmission capacity a gigawatt-scale facility requires. Recommendation 4 asks that this be established with evidence rather than assumed either way. In the Hunter, closure planning at mines such as BHP's Mt Arthur is already considering new industrial uses for the land and infrastructure left behind (Part D.4).

J.7 "It will compete for the same trades"

This is a genuine issue. Simon Croft of the Housing Industry Association has pointed out that data centres and housing increasingly draw on the same limited resources: land, power and infrastructure capacity in the cities, and skilled workers, utility capacity and electrical trades in the regions. He cites reports of electricians and apprentices being drawn from residential construction into major data centre and infrastructure projects, and concludes that Australia needs more homes, more digital infrastructure and more energy investment, but cannot achieve them without better coordination of planning, infrastructure delivery and workforce development.

Moving facilities underground does not reduce their demand for electricians; during construction it may increase it. Two responses follow. First, Tier 1 facilities draw on regional industrial workforces rather than the metropolitan trades needed for housing, so they redistribute the pressure rather than add to it. Second, workforce constraint is an argument for sequencing and training investment, not for accepting a permanent land-use outcome that is worse. Australia will live with the location of these facilities for fifty years. The apprentice pipeline can be addressed in five.

J.8 "Industry will go elsewhere"

The Chief Executive of Data Centres Australia has made the point that capital is mobile. It is — but it is currently arriving in Australia faster than the grid can connect it, which is the behaviour of capital that wants something Australia has. A country with 80,000 pre-excavated sites and a world-class tunnelling industry is not in a weak bargaining position. And the mobility argument should be weighed against the Resources Minister's warning (Part G.5): without social licence, the likeliest outcome is a short boom in which nobody is happy.

RECOMMENDATIONS IN THIS PART

- | | |
|--------------|--|
| Rec 2 | Published alternatives assessment for above-ground proposals |
| Rec 4 | National register of mine voids |

PART K

Conclusion

Australia's telecommunications investment over the past twenty years, together with its proximity to Asia and its political and geographic stability, positions the country to host significant data centre infrastructure. That opportunity will be realised at scale only if communities see tangible, ongoing benefit, not only cost and disruption.

Data centres make money. The policy task is to design the rules so that a fair share of that value stays in the places that host the load. Australia already has the tunnels, the mining workforce and the engineering capability to put data centres underground, freeing the surface for the hospitals, schools, innovation hubs and housing that governments say they want. A facility run by twenty people does not need surface light and air; the machines prefer a controlled environment.

Australia is in the early phase of a build-out that will fix the location of a very large body of industrial infrastructure for the next half-century. The decisions are being made now, one State Significant Development at a time, under frameworks that ask searching questions about the building and no question at all about whether it should be a building.

The country that mastered deep-level mining, and has spent a decade driving tunnels beneath its own cities, is building its most thermally demanding, most security-sensitive and most land-hungry new infrastructure in sheds beside schools.

It has 80,000 alternatives sitting empty.

Industry is already heading this way. In the Hunter, closure planning at mines such as BHP's Mt Arthur is looking at new industrial uses for the land and infrastructure left behind. Industry advisers point to voids hundreds of metres deep, cooler at the bottom and close to the grid. In the Pilbara, Fortescue is seeking changes to Western Australia's *Mining Act* so that its tenements can host data centres. The question is no longer whether mining land will be used for data centres, but whether it happens under a national framework or project by project, with community benefit left to chance.

Leaving the voids empty has a cost too. Rehabilitation bonds fall well short of what it would take to make these sites safe. The Upper Hunter's voids alone would cost an estimated \$12–25 billion to fill, and state governments in New South Wales, Queensland, Western Australia and Victoria are already spending public money on mines their operators left behind. A void converted into a data centre is a liability discharged, not deferred.

The Committee's report is the opportunity to build a net-positive framework into the approvals pipeline now, while the legislation is still being designed. We ask the Committee to recommend that:

- the underground becomes the default;
- disused mine voids become the preferred option;
- metropolitan facilities go under cities rather than beside their schools; and
- a proponent who wants to be above-ground be required — for the first time — to explain why.

FIGURE 8 · THE SITING HIERARCHY HANDLE MY COMPLAINT PROPOSES

Make underground construction the default, and make above-ground facilities earn their exception

A hierarchy of preference, not a ban. Each tier is available; a proponent moving down a tier carries the burden of showing why the tier above it will not work on that site. Today the order is inverted — above-ground is assumed.

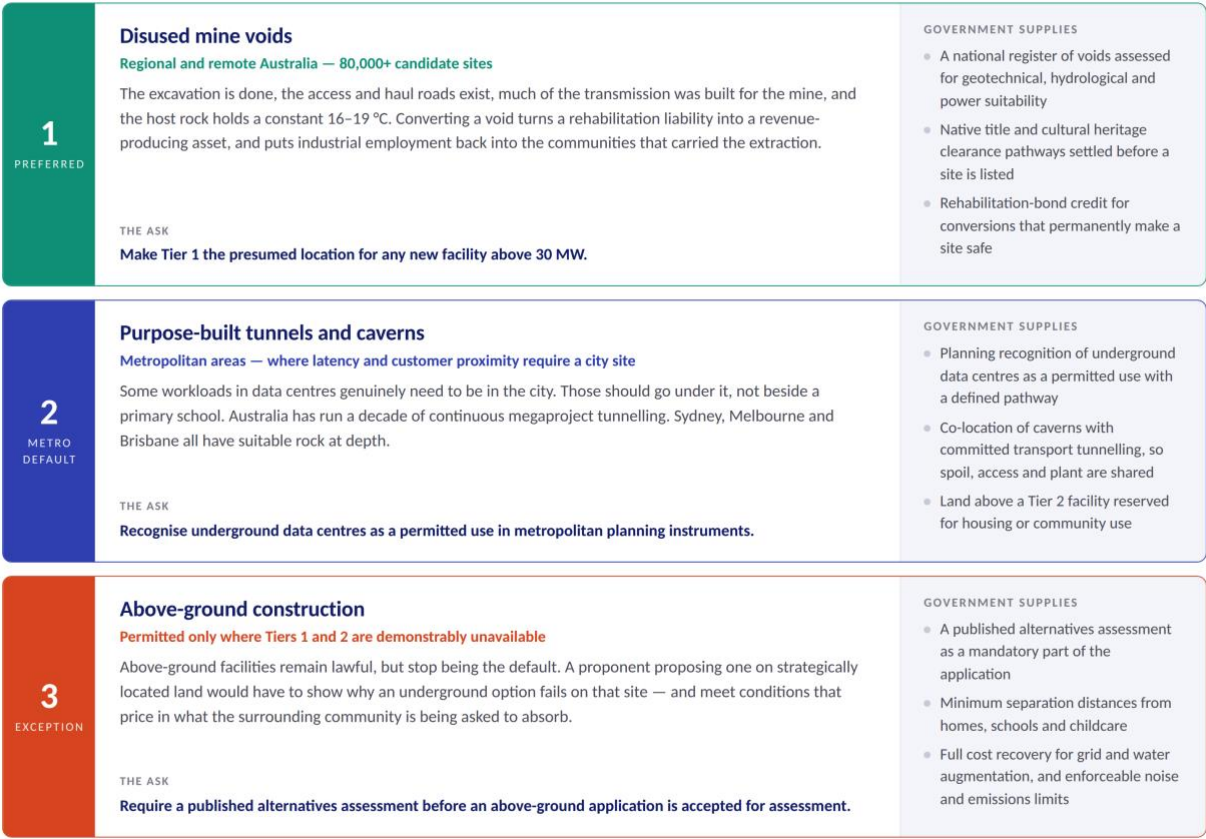


Figure: Handle My Complaint. Mine site count from The Australian Mining Review (2024) and Monash University Resources Trinity Group (2020); ground temperature from L. Johnston (2014).

Figure 8. The siting hierarchy Handle My Complaint asks the Committee to recommend.

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Handle My Complaint consents to this submission being published in full by the Committee.

We would welcome the opportunity to appear before the Committee.

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