

Data Centres

Enabling a Connected Digital World

In August 2026, CCA held workshops with councils and industry to discuss data centre development. Through working with key stakeholders, we learned that there is a need for plain language information that explains how data centres work. This flyer seeks to fill in the information gap that was identified.

What is a data centre?

- A building or campus housing computer servers that store, process and move information.
- Every facility has four parts: i) servers, ii) round-the-clock power, iii) cooling, and iv) fibre connectivity.
- Cooling is where most water use - and most energy beyond the servers themselves - comes from.
- "Data centre" is a broad category, not a single thing. Type and scale are the first questions to ask.

Scale varies enormously

Type	Size	Land Footprint
Edge	1 - 10 MW	Under 1 ha
Enterprise	5 - 50 MW	1 - 5 ha
Colocation	10 - 100+ MW	1-5 ha
Hyperscale	100+ MW	50 - 150+ ha
AI Factory	40 - 400+ MW	20 - 150 ha

A 5 MW facility can be an innocuous neighbour. A 200 MW campus is regional infrastructure with heavy grid, water and workforce implications. "Types" is descriptive only.

Additional Information

- AEMO and Oxford Economics estimate only ~15% of Australia's announced pipeline of 66GW are likely to be built.
- Much of the remainder is land banking - securing options over land and grid capacity without a committed project - speculation, or duplicate connection requests.
- Grid connection takes roughly 12-18 months with the average project affording around \$500,000 in fees to secure connection.
- Announced (project in concept phase), Contracted (end customer commitment, with project likely to be designed or have project approval) and Under Construction (data centre soon to be in operation) all denote different stages of the project lifecycle.

What varies most between projects?

Factor	Typical Range	Drivers
	100 MW = 150,000 homes/year	Size & efficiency
	<10 to 2,000 ML/year	Cooling technology
	20 - 30 ongoing staff per 100 MW	Facility type

Energy. Efficiency is measured as PUE - total facility power divided by server power. Well-sited modern facilities reach 1.2-1.4, and a cool climate lowers it further. There is currently no mandatory efficiency standard in Australia.

Water. Cooling design, not facility size, drives water use. Published operator figures applied to the same 100 MW facility differ by more than 200 times. Closed-loop and direct-to-chip systems use the least.

Jobs. Two separate waves that should not be added together. Construction is significant but temporary - roughly 0.7-2.0 workers per MW across an 18-36 month build. Ongoing operations are modest. The roles involved are in national shortage (particularly electricians and cybersecurity).

Why Northwest Tasmania?

Operators look for firm renewable power, available grid capacity, a cool climate, fibre, land and water. Several of those line up here:

- Tasmania reached 100% net renewable electricity and has legislated a 200% target by 2040.
- A cooler climate directly lowers the energy spent on cooling.
- Marinus Link and subsea cables would add substantial Bass Strait fibre capacity.
- Latency from Burnie to Melbourne is 10 milliseconds, inside workload range.

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Aspects associated with Data Centre development

- Trade & technical pathways (E.g electrician & cooling technicians)
- Fibre densification allows lowered business connectivity cost
- Waste heat reused by aquaculture, glasshouses or industry (Standard in Europe)
- Integrated regional AI frameworks into day by day work
- Co-investment in water and energy infrastructure, alongside facility
- Community benefit schemes

The Rules Are Still Being Written

- The Commonwealth's March 2026 National Data Centre Expectations ask new facilities to bring new power, cover their network costs and operate flexibly, applying to loads of 30 MW and above.
- AEMC access standards for large inverter-based loads of 30 MW and above are due for final determination on 29 October 2026.
- Draft Tasmanian Expectations for Data Centres and AI Infrastructure Developers is underway.
- There is no specific "data centre" use class in the Tasmanian Planning Scheme. Proposals are assessed under existing use classes, and recent Tasmanian approvals have been classified differently depending on function.
- No mandatory PUE or water-efficiency standard currently applies in Australia.

Who Decides What?

Responsibility for a data centre proposal is split across several bodies. No single one considers the whole picture.

- **Councils:** planning authority under the Tasmanian Planning Scheme where not deemed a major project.
- **TasWater:** water and sewerage connections, assessed case by case, with growth funded through headworks charges.
- **TasNetworks, AEMO and the AEMC:** grid connection, technical access standards and national market rules.
- **The Tasmanian Government:** state policy and the Statement of Expectations. State-level assessment pathways can also apply to very large and complex projects.
- **The Commonwealth:** national expectations, industrial policy and standards being developed for large facilities.

What Remains Unknown?

- There is limited Australian research on regional flow-on effect and there are currently no expectations or minimum contributions via community benefits or government royalties.
- There is currently no requirement for a facility to report its energy or water efficiency after construction has occurred.
- How much of the announced national pipeline actually proceeds will not be clear for several years.

Key Questions To Keep In Mind

- What type and size is it? and is the demand contracted or speculative?
- Where does the power come from, and is it from new generation?
- Are network upgrades required?
- What cooling technique is proposed, and what is the water source?
- How many ongoing jobs, over what period, and what share is to be expected locally?
- What community benefit is offered, and is it binding?
- Can operators offer compute resources to local community and industry moving forward?
- How will the facility design manage local impacts such as lighting and amenity? Will it contribute to public spaces?

Useful Terminology

- **MW and MWh:** MW is capacity at a moment; MWh is energy used over time.
- **PUE:** total facility power divided by IT equipment power. Lower=more efficient.
- **WUE:** water used divided by IT equipment power. Given as litres/kilowatt hour (L/kWh).
- **Colocation:** a data centre facility renting rack space to many different customers.
- **Hyperscale:** a single large operator running its own campus, generally 100 MW or more.
- **Training and inference:** the two stages of an AI model's life. Training is the one-off process of building a model by processing very large volumes of data. Inference is what happens each time someone uses the finished model to get an answer.
- **Headworks charge:** an upfront contribution toward water, sewer and electricity network capacity, paid by the developer.