

Trades and the transition

The build-out runs on trades — what's familiar, what's added and where the licences matter

The key idea: familiar trades, raised stakes

Digital infrastructure isn't staffed by mysterious new professions. It runs on Australia's existing trades (electrical, refrigeration and mechanical, communications cabling, civil) working in environments where the stakes are higher: systems that can never lose power, cooling that can never stop and penalties for failure measured in millions per hour. The trade is the foundation; the **critical-environment discipline** is what's added on top.

The trades in demand

Electricians everywhere: switchboards, UPS systems, generators, solar and battery installations, with high-voltage and DC competencies increasingly valuable as facilities evolve. **Refrigeration/mechanical**: the cooling plant is a data centre's beating heart and liquid cooling is adding new systems to master. **Cablers**: structured data cabling and fibre. Cabling work in Australia legally requires **ACMA registration**, a worked example of a licence that gates real work. **Civil and comms crews**: the cables, conduits and towers this whole series of series describes.

What "critical environment" adds

Working live-adjacent in facilities that cannot be switched off changes how work is done: permit systems, method statements, change windows, redundancy awareness (knowing which of two systems you're touching) and documentation discipline. None of it is beyond a good tradesperson, but it must be learned and employers pay for people who've proven it. That gap between base trade and critical-environment readiness is exactly what structured credentials address (sheet 05).

For regions: the licence map is the opportunity map

Licensed trades are regulated state by state and licences take years, which means a region can see demand coming and start early. Where a major facility is proposed, the apprenticeships that will serve it should start **before construction does**. That's a concrete ask for councils and communities in benefit negotiations: funded apprentice places, now.

What good practice looks like

- Proponents state which trades and licences their build and operations will need, with numbers.
- Apprenticeship and upskilling places funded ahead of construction.
- Critical-environment training offered to local tradespeople, not just imported crews.
- Licence and registration requirements (electrical, cabling) stated plainly in job pipelines.

Questions to ask

Which trades will this project need, in what numbers, at which stages? How many local apprentices and upskilled tradespeople are funded, starting when? What critical-environment training comes with it?

Want to know more? State licensing bodies cover electrical trades; the ACMA covers cabling registration; training.gov.au lists the qualifications behind each trade. This sheet is general information, not careers or training advice; check the named sources for current detail.