

Electrical Engineering Technician interview questions

careertips.com.au: common questions and what they're really testing

What to expect

Interviews for electrical engineering technician roles in Australia typically blend technical assessment with scenario and safety questions. Employers want to see that you can work to standards, solve problems methodically, and communicate with trades and engineers on site.

- **Technical knowledge:** Questions on drawings, standards, switchboards, control panels, and testing.
- **Fault-finding scenario:** A hypothetical breakdown where you explain your diagnostic process.
- **Safety and compliance:** Isolation, testing for dead, permits, and working to AS/NZS 3000.
- **Process and documentation:** How you record test results, as-built drawings, and estimates.
- **Behavioural and teamwork:** Past examples of working with electricians, engineers, and site teams.
- **Client and stakeholder communication:** Explaining technical issues to non-technical people.

The interview usually starts with a short introduction and a review of your qualifications and licences. Then you move into technical questions or a walk-through of a drawing or fault scenario. Safety questions are common. You will likely meet a supervisor or engineer, and sometimes a practical test or site walk. The interview closes with your questions and a discussion of next steps.

1. Walk me through how you would prepare a set of electrical drawings for a new control panel, from concept to issue for construction.

Why they ask

This tests your understanding of the design process and your ability to work to standards.

How to structure your answer

Use a step-by-step walk-through: state the inputs, the sequence of tasks, the checks you make, and the output.

Example answer

"First I review the project specifications and any relevant standards, like AS/NZS 3000 and AS/NZS 61439. I confirm the loads and the supply arrangement. Then I create a single-line diagram to show the distribution. Next I lay out the panel, selecting components and sizing cables. I draw the schematic diagrams for control and power circuits. I produce a bill of materials and a cable schedule. Before issuing for construction, I check the drawings against the specifications and have a peer review. Finally I issue the drawings and update them for as-built."

2. You arrive at a site where a PLC-controlled conveyor has stopped. The operator says it tripped and won't reset. How do you approach the fault?

Why they ask

Employers want to see a methodical and safe approach to fault finding under pressure.

How to structure your answer

Use a judgement-under-pressure structure: make safe, gather information, form a hypothesis, test, repair, verify, and document.

Example answer

"I start by making the area safe and isolating the conveyor if needed. I talk to the operator to find out what happened and check for any error codes on the HMI or PLC. I look at the electrical drawings to

understand the circuit. I test the inputs and outputs, starting with the most likely causes like a tripped overload or a failed sensor. Once I find the fault, I repair or replace the component. I then test the conveyor under controlled conditions, confirm it runs correctly, and document the fault and repair in the maintenance log."

3. What does safe isolation mean to you, and how do you apply it on a live electrical site?

Why they ask

Safety is critical in this role, and employers need to know you follow proper isolation procedures.

How to structure your answer

Give a process answer: explain the isolation procedure, testing for dead, tagging, and permits. Then give a brief example of applying it.

Example answer

"Safe isolation means proving the circuit is dead before I touch it. I identify the correct isolation point, switch off and lock out, then test the tester on a known live source, test for dead on the conductors, and re-test the tester. I apply danger tags and, where required, a permit. I also check for any backfeeds from generators or UPS systems. For example, when working on a switchboard, I isolated the incoming supply, proved dead at the terminals, and tagged the breaker before starting work."

4. Tell me about a time you had to work with an electrician or engineer to resolve a disagreement over a design or installation.

Why they ask

This reveals how you handle teamwork and technical conflict.

How to structure your answer

Use STAR: describe the situation, the task, the action you took, and the result.

Example answer

"On a recent project, an electrician and I disagreed about the cable route for a new submain. He wanted to run it overhead, but I thought underground was better for access. I asked to see the site with him and we reviewed the drawings together. I explained my concern about future maintenance and he explained the cost savings of overhead. We agreed to run it underground in a conduit because it reduced long-term risk. The installation passed inspection and the client was happy with the neat result."

5. How do you ensure your test results and as-built drawings are accurate and useful for the next person?

Why they ask

This checks your attention to detail and understanding of documentation.

How to structure your answer

Use a process structure with a quality check: describe how you record, check, and store information.

Example answer

"I record test results as I go, using the standard test sheets for the project. I note the instrument used and the calibration date. For as-built drawings, I mark up the changes on site and then update the CAD model. I check my work against the original drawings and have a colleague review it. I save everything in the project folder with a clear naming convention. That way, the next technician can find the information quickly and trust it."

6. Describe a situation where you had to explain a technical issue to a non-technical client or site manager.

Why they ask

This role often involves client-facing communication, so employers look for clear explanations.

How to structure your answer

Use a STAR structure focused on clarity: situation, approach to explaining, outcome.

Example answer

"A site manager once asked why a new switchboard could not be energised immediately. I explained that we needed to complete the testing and commissioning first to confirm the protection settings were correct. I avoided jargon and used an analogy about checking the brakes before driving a car. He understood and gave us the time we needed. The switchboard was energised safely the next day and he thanked me for explaining it clearly."