

**Electric Vehicle Charging Point Installation**

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

**THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT**

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

**CLIENT OR PRINCIPAL CONTRACTOR DETAILS**

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

SAMPLE

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

  

Risk Rating & Required Action:	
<b>4A</b>	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	No injury	no schedule impact	Deviation caught and corrected on site

  

**Notes on Hierarchy of Controls:**  
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

*aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Governance, Legal Compliance and WHS Duties	<ul style="list-style-type: none"> <li>Lack of clear allocation of WHS duties for the lifecycle of electric vehicle (EV) charging systems (design, installation, operation, maintenance and decommissioning)</li> <li>Failure to identify and comply with WHS Act 2011, WHS Regulations, electrical safety legislation and relevant Australian Standards for EV charging systems</li> <li>Inadequate consultation with workers, health and safety representatives (HSRs), contractors and building owners about EV charging risks</li> <li>No documented WHS management plan addressing EV charging infrastructure, leading to fragmented or ad hoc risk controls</li> <li>Poor management of overlapping duties between PCBU's (host workplace, electrical contractors, EV fleet operators, landlords, body corporates)</li> <li>Failure to integrate EV charging risks into the organisation's existing WHS risk management framework and risk register</li> </ul>	High	<ul style="list-style-type: none"> <li>Establish a formal governance structure (e.g. WHS Steering Committee or nominated Responsible Officer) with defined accountability for EV charging point installation, operation and maintenance in line with WHS Act 2011 duties of PCBU's, officers and workers</li> <li>Undertake a legislative and standards compliance review specific to EV charging, including but not limited to WHS Act 2011 and Regulations, Electrical Safety Act and Regulations (where applicable), AS/NZS 3000 (Wiring Rules), AS/NZS 3008, AS/NZS 4777, IEC/AS standards for EV charging equipment, and relevant building codes</li> <li>Develop and endorse a written EV Charging WHS Management Procedure that sets out minimum design criteria, and conduct risk assessment processes, roles and responsibilities, and consultation requirements</li> <li>Implement a documented process for managing overlapping duties between all relevant PCBU's (e.g. landlord, tenant, electrician, contractor, EV fleet operator) including written agreements covering design approval, access, operation, emergency response and maintenance responsibilities</li> <li>Embed EV charging system risks into the corporate risk register, with defined risk owners, review dates and performance indicators</li> <li>Require officers to exercise due diligence by regularly reviewing EV charging risk reports, audit findings, incident trends and compliance status</li> <li>Establish a consultation and communication plan that requires early engagement with workers, HSRs, contractors and building management before EV charging installations are approved</li> <li>Mandate pre-installation WHS risk assessments for all new or significantly modified charging locations, using a consistent organisational risk matrix</li> <li>Set up a periodic governance review (e.g. annually) of EV charging controls, legislative changes and technological developments, with documented outcomes and action tracking</li> </ul>	Medium
2. Design, Engineering and Technical Standards for Charging Systems	<ul style="list-style-type: none"> <li>Poor system design leading to overloading of existing electrical infrastructure and increased risk of electrical fire or equipment failure</li> <li>Selection of non-compliant or incompatible EV chargers and components that do not meet Australian Standards or site electrical capacity</li> <li>Inadequate earthing, bonding and protection arrangements (RCDs, circuit breakers, surge protection) for charging circuits</li> <li>Insufficient consideration of battery characteristics (high voltage DC, rapid charge cycles, thermal runaway potential) in system design</li> </ul>	High	<ul style="list-style-type: none"> <li>Require all EV charging system designs to be completed or certified by a suitably qualified and experienced engineer or Level 3 designer familiar with EV infrastructure and local distribution network requirements</li> <li>Mandate compliance of all charging equipment and components with relevant Australian and international standards, and require evidence of certification and conformity from suppliers prior to procurement</li> <li>Implement a design review process that includes electrical load analysis, fault level calculations and verification that existing supply, switchboards and protective devices can safely support proposed charging loads</li> <li>Specify minimum requirements for protection devices (RCDs, MCBs, RCBOs, surge protection, earth leakage monitoring) in line with AS/NZS 3000 and manufacturer recommendations for EV chargers</li> <li>Ensure design documentation explicitly addresses EV battery characteristics, including maximum charge rates, voltage levels, thermal management requirements and emergency isolation features</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>Failure to provide adequate separation distances from ignition sources, combustible materials, critical plant or emergency egress routes</li> <li>Omission of redundancy and fault-tolerant design, leading to single-point failures and unsafe conditions during faults</li> <li>Inadequate integration between EV charging equipment and building management systems (BMS), fire detection systems and load management systems</li> </ul>		<ul style="list-style-type: none"> <li>Incorporate spatial layout guidelines that maintain required clearances from combustible materials, ensure adequate ventilation, and avoid locating chargers in confined or poorly ventilated areas where heat and vapours may accumulate</li> <li>Require design integration of EV chargers with building management systems and, where applicable, fire detection and alarm systems to permit monitoring, shutdown and status indication</li> <li>Include load management or smart charging capability in the design (e.g. dynamic load control) to prevent overloading of supply and to manage concurrent peak demand</li> <li>Establish a formal design verification and sign-off process including independent technical review for high-risk or complex installations</li> <li>Maintain a controlled repository of as-built drawings, single-line diagrams and technical specifications for all EV charging installations</li> </ul>	
3. Procurement, Supplier Management and Equipment Selection	<ul style="list-style-type: none"> <li>Procurement of low-quality or non-certified chargers and components to reduce upfront cost, increasing likelihood of electrical faults and fires</li> <li>Lack of due diligence on supplier competence, after-sales support and warranty terms for EV charging infrastructure and associated software</li> <li>Inadequate specification of safety, monitoring and interoperability requirements in procurement documents</li> <li>Use of incompatible charger connectors, communication protocols or software platforms leading to system failures, user confusion and unsafe workarounds</li> <li>Failure to include lifecycle considerations (maintenance, software updates, spare parts availability, end-of-life disposal) in procurement decisions</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Develop a formal procurement policy for EV charging systems that specifies mandatory safety, compliance and performance criteria aligned with Australian standards and WHS obligations</li> <li>Require tenderers and suppliers to provide evidence of product certification, compliance with relevant standards and previous successful installations in comparable environments</li> <li>Embed clear technical and safety specifications in procurement documents, including requirements for fault detection, emergency stop capability, software security standards, remote monitoring and data logging</li> <li>Include criteria for interoperability (connectors, communications protocols, OCPP or equivalent), ensuring compatibility with the organisation's EV fleet and future system expansion</li> <li>Assess suppliers on their technical capability, local service presence, 24/7 support arrangements, spare parts logistics and commitment to timely safety-related recalls or updates</li> <li>Incorporate lifecycle cost and risk assessment (including maintenance, inspections, software licensing and decommissioning) into procurement evaluation methodologies</li> <li>Require contractual clauses obligating suppliers to notify the organisation of safety bulletins, recalls and critical firmware or software patches affecting safe operation</li> <li>Standardise on a limited range of charger models and configurations to simplify training, maintenance, spare parts management and risk control</li> <li>Maintain an approved products list for EV charging equipment and review it periodically based on incident data, performance metrics and regulatory changes</li> </ul>	Low
4. Electrical Safety, Isolation and Energy Management Systems	<ul style="list-style-type: none"> <li>Uncontrolled exposure to live electrical parts during fault conditions, inspection, testing or maintenance activities</li> <li>Inadequate isolation and lockout systems for chargers and associated electrical equipment, leading to inadvertent energisation</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> <li>Poorly coordinated protection and load management resulting in nuisance tripping, equipment damage or unsafe manual override behaviours</li> <li>Lack of real-time monitoring of electrical parameters (current, voltage, temperature) to detect abnormal conditions in charging circuits</li> <li>Risk of arcing, overheating and cable damage due to undersized conductors, loose terminations or poor-quality connections</li> </ul>		[REDACTED]	
5. Location, Layout, Traffic and Public Interface	<ul style="list-style-type: none"> <li>Poor siting of charging points leading to increased risk of vehicle-pedestrian interaction, collisions or obstruction of emergency access routes</li> <li>Insufficient clearance for vehicles to access chargers safely, increasing likelihood of impact damage to chargers and associated electrical infrastructure</li> <li>Inadequate lighting and signage around charging locations, contributing to slips, trips, falls and misconnection of equipment</li> <li>Uncontrolled public access to charging equipment in shared car parks, creating risk of misuse, vandalism or exposure to electrical hazards</li> <li>Locating chargers in areas prone to flooding, water ingress or excessive heat, compromising electrical safety and charger performance</li> </ul>	High	[REDACTED]	Medium

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			[REDACTED]	
6. Battery, Thermal Runaway and Fire Safety Management	<ul style="list-style-type: none"> <li>• Thermal runaway of EV batteries during charging leading to intense, difficult-to-extinguish fires and toxic smoke production</li> <li>• Inadequate detection and early warning of overheating connectors, cables or chargers</li> <li>• Charging systems installed without appropriate consideration of interaction with existing fire detection, sprinkler or suppression systems</li> <li>• Lack of clear procedures for managing EV battery fires, including post-incident cooling and re-ignition risks</li> <li>• Storage or queuing of multiple EVs in confined areas without adequate separation, increasing fire and propagation risk</li> </ul>	High	[REDACTED]	Medium
7. Software, Cybersecurity and Data Management of Charging Systems	<ul style="list-style-type: none"> <li>• Unauthorized access to charging control systems leading to unsafe alterations of charging parameters, load settings or safety interlocks</li> <li>• Software faults or configuration errors causing overcurrent, overheating or uncoordinated load management</li> <li>• Loss of monitoring data due to system outages, compromising the ability to detect trends, faults or misuse</li> <li>• Reliance on cloud-based control platforms without appropriate resilience, creating risk of chargers defaulting to unsafe operation modes during outages</li> </ul>	Medium	[REDACTED]	Low

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	<ul style="list-style-type: none"> <li>Poor management of user access credentials and administrative privileges for charging management software</li> </ul>		[REDACTED]	
8. Worker Competency, Training and Information	<ul style="list-style-type: none"> <li>Workers and contractors lacking understanding of EV-specific electrical and battery risks, leading to unsafe behaviours around charging equipment</li> <li>Inadequate training for staff responsible for oversight, inspection, or basic troubleshooting of chargers</li> <li>Failure to provide clear instructions and signage for safe use of charging points, including shut-down and emergency procedures</li> <li>Over-reliance on informal on-the-job learning without verification of competency</li> </ul>	Medium	[REDACTED]	Low
9. Contractor, Installer and Third-Party Management	<ul style="list-style-type: none"> <li>Inconsistent safety standards and practices among different electrical contractors and installers working on EV charging infrastructure</li> <li>Insufficient verification of contractor competence and licensing for EV charging installations and commissioning</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>Poor coordination between contractors and site management, leading to unplanned outages, live work or exposure of workers and public to hazards</li> <li>Inadequate oversight of subcontractors and specialist vendors engaged by primary contractors</li> </ul>		[REDACTED]	
10. Operations, User Management and Access Control	<ul style="list-style-type: none"> <li>Uncontrolled use of chargers by untrained workers or public users leading to unsafe practices (e.g. damaged cables, incorrect connectors, bypassing interlocks)</li> <li>Conflict between operational priorities (vehicle availability) and safety requirements (fault reporting, isolation and repair)</li> <li>Lack of system to manage and prioritise access to chargers, potentially encouraging rushed or unsafe behaviours</li> <li>Failure to promptly remove from service faulty or damaged chargers, cables or connectors</li> </ul>	Medium	[REDACTED]	Low
11. Inspection, Maintenance and Asset Lifecycle Management	<ul style="list-style-type: none"> <li>Degradation of charging equipment, cables and connectors over time leading to increased risk of electric shock, arcing or fire</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>Lack of systematic inspection and maintenance program for chargers and associated electrical infrastructure</li> <li>Failure to act on identified defects, near misses or manufacturer safety bulletins in a timely manner</li> <li>Unmanaged changes, upgrades or additions to charging infrastructure resulting in undocumented risks and non-compliance</li> </ul>		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
12. Emergency Preparedness, Response and Incident Management	<ul style="list-style-type: none"> <li>Delayed or ineffective response to EV-related electrical faults, battery incidents or fires due to unclear procedures or lack of training</li> <li>Inadequate integration of EV charging scenarios into site emergency plans, drills and communication systems</li> <li>Lack of readily accessible emergency stop devices, isolation points or information for first responders</li> <li>Poor post-incident investigation of EV charging events, leading to repeated systemic failures</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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			[REDACTED]	
13. Health, Environment and Community Impact	<ul style="list-style-type: none"> <li>• Exposure of workers and building occupants to smoke and toxic gases from EV battery or electrical fires</li> <li>• Noise, light spill or electromagnetic interference from chargers affecting nearby workers or neighbours</li> <li>• Environmental contamination from damaged batteries, electrolyte leaks or firefighting water run-off</li> <li>• Negative community or stakeholder reaction to poorly managed EV charging installations (visual impact, access issues, perceived safety risks)</li> </ul>	Medium	[REDACTED]	Low
14. Monitoring, Audit and Continuous Improvement	<ul style="list-style-type: none"> <li>• Failure to detect emerging risks, recurring faults or non-compliance related to EV charging systems</li> <li>• Inadequate measurement of safety performance, leading to complacency and erosion of control effectiveness</li> <li>• Lack of structured review following technological changes, regulatory updates or significant incidents</li> <li>• Fragmented ownership of improvement actions resulting in incomplete implementation</li> </ul>	Medium	[REDACTED]	Low

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			[REDACTED]	
			[REDACTED]	
			[REDACTED]	

SAMPLE

**EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES**

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

**LEGISLATIVE REFERENCES**

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

**Queensland & Australian Capital Territory**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2011  
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>  
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>  
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>  
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

**Victoria**

Occupational Health and Safety Act 2004  
 Occupational Health and Safety Regulations 2017  
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>  
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

**New South Wales**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2025  
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>  
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

**Western Australia**

Work Health and Safety Act 2020  
 Work Health and Safety Regulations 2022  
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>  
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

**Northern Territory**

Work Health and Safety (National Uniform Legislation) Act 2011  
 Work Health and Safety (National Uniform Legislation) Regulation 2011  
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>  
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

**Safe Work Australia Links**

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>  
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

**South Australia**

Work Health and Safety Act 2012 (SA)  
 Work Health and Safety Regulations 2012 (SA)  
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>  
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

**Model Codes of Practice**

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

**Tasmania**

Work Health and Safety Act 2012  
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012  
 Work Health and Safety Regulations 2012  
 Work Health and Safety (Transitional) Regulations 2012  
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>  
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.