

**Electrical Fit-Off, Lighting and Accessories 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:	



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. WHS Governance, Roles and Legal Compliance	<ul style="list-style-type: none"> <li>Lack of clearly defined WHS responsibilities for electrical supervisors, project managers and principal contractors</li> <li>Inadequate understanding of duties under WHS Act 2011 and WHS Regulations (electrical work, construction work, high risk work)</li> <li>Failure to appoint competent persons to manage electrical fit-off and lighting installation risks</li> <li>Insufficient consultation, cooperation and coordination between PCBUs on multi-contractor sites</li> <li>No formal process for monitoring compliance with AS/NZS 3000 (Wiring Rules) and related Australian Standards</li> <li>Poor governance over changes to scope, design or methods that affect electrical and lighting risks</li> </ul>	4A	<ul style="list-style-type: none"> <li>Establish a WHS governance framework that clearly allocates responsibilities for electrical safety, lighting installations and fit-off works across management, supervision and workers</li> <li>Maintain and regularly review a documented WHS Management System (WHSMS) aligned with WHS Act 2011, WHS Regulations and relevant Codes of Practice for construction and electrical work</li> <li>Appoint a competent electrical supervisor with authority to stop unsafe work, approve methods and verify compliance with standards and project procedures</li> <li>Implement formal consultation arrangements between PCBUs, including coordination meetings, pre-start briefings and documented interfaces for electrical, mechanical and building trades</li> <li>Maintain a legal and standards register of all applicable legislation, regulations, Codes of Practice and AS/NZS standards (including AS/NZS 3000, AS/NZS 3012, AS/NZS 60598, AS/NZS 61439) with scheduled review dates</li> <li>Require management sign-off for any design or scope change that alters electrical loading, lighting location, automation interfaces or control systems, supported by updated risk assessments</li> <li>Conduct periodic WHS and compliance audits focusing on electrical fit-off governance, with corrective actions tracked to close-out</li> </ul>	3H
2. Electrical Design, Load Assessment and Coordination	<ul style="list-style-type: none"> <li>Inadequate load calculations for lighting circuits, ceiling fans, exhaust fans, UV lights, power points and indicator lights leading to overloading</li> <li>Poor coordination between architectural, mechanical, automation and electrical designs causing clashes or unsafe arrangements</li> <li>Failure to consider heat dissipation and ventilation requirements for LED drivers, transformers and power supplies</li> <li>Insufficient design provisions for future socket additions, additional power points and automation upgrades</li> <li>Lack of discrimination and protection coordination between circuit breakers, RCDs and control devices</li> <li>Incorrect selection of equipment ratings for damp, external or high-temperature locations</li> </ul>	4A	<ul style="list-style-type: none"> <li>Require all electrical and lighting designs to be completed or verified by a suitably qualified and competent designer in accordance with AS/NZS 3000 and relevant Australian Standards</li> <li>Implement a documented design review and verification process for all lighting and accessory installations, including power point additions, new circuits, LED modules and automation interfaces</li> <li>Use standardised design tools and load calculation templates for assessing circuit loading, voltage drop, diversity factors and protection requirements</li> <li>Mandate interdisciplinary design coordination meetings (electrical, mechanical, architectural, automation) to resolve clashes around windows, doors, exhaust vents and ceiling services prior to installation</li> <li>Specify equipment with appropriate IP rating, temperature rating and UV resistance for exterior lights, exhaust vents, windows and damp areas, as per manufacturer instructions and standards</li> <li>Incorporate maintenance access, isolation points and safe replacement strategies into design for lights at height, UV fixtures, ceiling fans and integrated automation components</li> <li>Require independent design review or peer check for complex automation integration, dimming systems, emergency lighting and electronic control programming</li> </ul>	2M

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	<ul style="list-style-type: none"> <li>Design not accounting for maintenance access to light fittings at height, ceiling fans and control gear</li> </ul>			
3. Procurement, Equipment Selection and Supply Chain Management	<ul style="list-style-type: none"> <li>Procurement of non-compliant or counterfeit electrical equipment, LED modules, UV lights and control gear</li> <li>Use of incompatible components (drivers, transformers, dimmers, automation interfaces) leading to overheating or malfunction</li> <li>Inadequate verification of supplier certifications and approvals for luminaires and accessories</li> <li>No system for managing product changes or substitutions once designs are approved</li> <li>Insufficient stock traceability for recalled or defective batches of fittings, power points or control modules</li> <li>Failure to supply installation manuals and programming guides from manufacturers</li> </ul>	3H	<ul style="list-style-type: none"> <li>Establish a procurement procedure requiring all electrical and lighting equipment to be certified, approved for use in Australia and compliant with relevant standards (e.g. RCM marked, AS/NZS approvals)</li> <li>Maintain an approved product list for lighting, power points, indication lights, UV fittings and automation hardware, verified by a qualified electrician/engineer or supervisor</li> <li>Require compatibility checks between selected luminaires, LED modules, drivers, dimmers and automation systems, supported by manufacturer documentation</li> <li>Implement a formal product substitution approval process requiring engineering review, WHS impact assessment and updated documentation before alternatives are used on site</li> <li>Maintain a traceable inventory system (batch numbers, serial numbers, supplier details) to enable rapid identification and removal of recalled or defective products</li> <li>Ensure all purchased products are supplied with current manufacturer data sheets, installation instructions, programming manuals and safety information accessible to workers</li> <li>Periodically audit key suppliers for compliance with quality and safety requirements</li> </ul>	2M
4. Contractor Management, Licensing and Competency	<ul style="list-style-type: none"> <li>Engagement of unlicensed or inadequately supervised electrical workers to install lighting, power point sockets and controls</li> <li>Insufficient competency in programming electronic controls and automation systems, leading to unsafe operation</li> <li>No structured induction for subcontractors regarding electrical safety expectations and site rules</li> <li>Inadequate verification of high-risk work qualifications for work at height related to lighting and ceiling fan installation</li> <li>Poor oversight of labour-hire and temporary workers during fit-off periods</li> </ul>	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> <li>Failure to ensure test and tag or inspection competencies for portable equipment used in fit-off</li> </ul>		[REDACTED]	
5. Planning of Power, Circuits and Isolation Arrangements	<ul style="list-style-type: none"> <li>Inadequate planning of new and existing circuits leading to inadvertent energisation during installation</li> <li>Poorly documented isolation points for lighting circuits, ceiling fans, exhaust fans and power points</li> <li>Multiple trades working on shared circuits without clear lockout/tagout arrangements</li> <li>Uncontrolled addition of sockets and power points resulting in circuit overloading or nuisance tripping</li> <li>Lack of planning for staged energisation during progressive fit-off floors or zones</li> </ul>	4A	[REDACTED]	2M
6. Installation in Ceiling Voids, Roof Spaces and At Height	<ul style="list-style-type: none"> <li>Systemic lack of controls for work at height when installing ceiling fans, UV units and exhaust fan connections</li> <li>Inadequate selection and management of access equipment (ladders, scaffolds, EWP) for lighting fit-off</li> <li>Poor planning for safe access into ceiling voids and roof spaces for cabling, junction boxes and fittings</li> <li>Insufficient ceiling design coordination leading to congested spaces with services clashes and difficult access</li> <li>Failure to manage dropped object risks when installing lights and accessories above work areas</li> <li>Inadequate fall-through protection when working near fragile or exposed ceiling materials</li> </ul>	4A	[REDACTED]	2M

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7. Management of Live Work and De-Energised Work Principles	<ul style="list-style-type: none"> <li>• Systemic tolerance of live work during final fit-off of lighting, sockets and power points</li> <li>• Inadequate enforcement of the principle to work de-energised wherever practicable</li> <li>• No clear criteria or authorisation process for when live testing is required</li> <li>• Insufficient insulated tools, test instruments and PPE for mandatory verification testing</li> <li>• Inconsistent use of test-before-touch practices across work crews</li> </ul>	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M
8. Integration of Automation, Electronic Controls and Programming	<ul style="list-style-type: none"> <li>• Improper configuration of automation systems controlling lighting, exhausts and UV units resulting in unsafe operating states</li> <li>• Software or firmware errors in programmable logic controllers, gateways or smart systems</li> <li>• Lack of cybersecurity controls on networked lighting and building management systems</li> <li>• Inadequate version control and documentation of programmed settings and changes</li> <li>• Insufficient training for technicians on safe programming and fault-finding practices</li> <li>• Unintended interactions between manual overrides, sensors, timers and emergency lighting functions</li> </ul>	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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9. UV, LED and Photobiological Hazards Management	<ul style="list-style-type: none"> <li>Exposure of workers or occupants to harmful UV radiation from UV light installations used for disinfection or special applications</li> <li>Glare, flicker or blue-light hazards from high-intensity LED fittings, indicator lights or display systems</li> <li>Thermal build-up from poorly ventilated LED drivers, transformers and control gear causing fire or burn risks</li> <li>Inadequate labelling and warning information for UV sources and high-intensity luminaires</li> <li>Lack of consideration for sensitive populations (e.g. photosensitive individuals) in lighting design and control</li> </ul>	3H	[REDACTED]	2M
10. Work Environment, Storage Areas and Temporary Lighting	<ul style="list-style-type: none"> <li>Insufficient temporary lighting during fit-off in ceilings, plant rooms and storage areas leading to slips, trips and falls</li> <li>Inadequate control of noise/keeping in areas where fitting LED modules and electrical accessories are started</li> <li>Blocked access to electrical boards, isolation devices and exits due to stacked lights and materials</li> <li>Poor planning for power supply to temporary lighting, leading to overuse of extension leads and power boards</li> <li>Inadequate consideration of heat sources and fire loads in storage of electrical fittings, packaging and cable drums</li> </ul>	3H	[REDACTED]	2M
11. Testing, Inspection, Verification and Handover	<ul style="list-style-type: none"> <li>Systemic failure to complete required testing of lighting circuits, power points, exhaust connections and automation interfaces before energisation</li> </ul>	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>Inadequate records of test results, certificates of compliance and defect lists</li> <li>Inconsistent inspection standards between contractors and principal contractor</li> <li>Failure to verify correct operation of safety features such as RCDs, emergency lighting and interlocks</li> <li>Handover occurring with unresolved electrical defects or undocumented temporary arrangements</li> </ul>		[REDACTED]	
12. Documentation, Labelling, Drawings and Change Control	<ul style="list-style-type: none"> <li>Out-of-date drawings and schedules not reflecting installed lighting layouts, power points and circuit arrangement</li> <li>Missing or incorrect labelling of circuit isolators, switches and socket outlets</li> <li>No formal process to manage variations or changes in lighting type, locations or control strategies</li> <li>Poor retention of manuals, warrant and programming information for future maintenance</li> <li>Confusion for maintenance personnel due to incomplete as-built records, particularly for automation and control wiring</li> </ul>	3H	[REDACTED]	1L
13. Fatigue, Work Scheduling and Supervision During Fit-Off	<ul style="list-style-type: none"> <li>Compressed timeframes during final fit-off leading to extended hours and fatigue among electricians and apprentices</li> <li>Inadequate supervision during peak installation periods, particularly for</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>high-risk activities such as work at height and ceiling void work</li> <li>Night or weekend shifts for lighting adjustments in occupied buildings without tailored risk controls</li> <li>Rushing testing, labelling and documentation due to program pressures</li> <li>Reduced hazard awareness in low-light or congested conditions during late-stage works</li> </ul>		[REDACTED]	
14. Interface with Other Trades, Occupants and Public Safety	<ul style="list-style-type: none"> <li>Uncoordinated work between electricians, ceiling installers, painters and mechanical contractors leading to interference and damage to electrical installations</li> <li>Exposure of other workers or building occupants to live parts or incomplete light fittings and power points</li> <li>Working above or adjacent to members of the public when installing exterior lighting or facade fittings</li> <li>Inadvertent energisation of circuits that other trades are still working on due to poor communication</li> <li>Damage to wiring or fittings from follow-on trades relocating windows, doors or exhaust ductwork and electrical rough-in</li> </ul>	3H	[REDACTED]	2M
15. Emergency Preparedness, Incident Response and Reporting	<ul style="list-style-type: none"> <li>Lack of emergency planning specific to electrical incidents during lighting and accessory installation</li> <li>Delayed response to electric shock, arc flash or fire due to unclear procedures</li> <li>Under-reporting of near misses and minor incidents related to electrical fit-off activities</li> <li>Inadequate availability or maintenance of fire protection equipment near electrical work areas</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>No systematic investigation of electrical incidents to identify root causes and systemic failures</li> </ul>		[REDACTED]	
16. Ongoing Review, Consultation and Continuous Improvement	<ul style="list-style-type: none"> <li>Controls for electrical fit-off and lighting installations becoming outdated as technology and practices change</li> <li>Lack of worker consultation leading to impractical or ignored procedures</li> <li>Failure to identify repeating patterns of incidents or non-conformances</li> <li>No structured review of WHS performance specific to electrical and lighting works</li> <li>Limited integration of lessons learned from previous projects into new ones</li> </ul>	3H	[REDACTED]	1L

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.