

## Solar Panel Installation Risk Assessment

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

### THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THE 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>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
4A 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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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. Preparation	Inadequate site assessment, Poor weather conditions	3H	<ul style="list-style-type: none"> <li>- Conduct thorough site assessment prior to installation</li> <li>- Monitor weather forecasts and plan work accordingly</li> <li>- Ensure workers are trained in site-specific hazards</li> <li>- Establish emergency communication procedures</li> <li>- Develop a job safety analysis for common tasks</li> <li>- Implement a permit-to-work system</li> <li>- Designate competent person to assess risks</li> <li>- Maintain communication with all team members</li> <li>- Establish clear work zones and restrict access</li> <li>- Ensure proper signage is visible and in place</li> </ul>	2M
2. Delivery of Materials	Manual handling injuries, Material damage	3H	<ul style="list-style-type: none"> <li>- Use mechanical aids for heavy lifting</li> <li>- Train workers on proper manual handling techniques</li> <li>- Conduct regular inspections of materials upon delivery</li> <li>- Ensure appropriate storage space is available</li> <li>- Coordinate delivery times to minimise site congestion</li> <li>- Ensure delivery personnel are aware of site protocols</li> <li>- Develop clear unloading procedures</li> <li>- Use appropriate PPE during unloading</li> <li>- Maintain clear walkways free of obstructions</li> <li>- Implement a schedule to manage delivery times</li> </ul>	2M
3. Roof Access	Falls from height, Inadequate access equipment	4A	<ul style="list-style-type: none"> <li>- Ensure all access equipment is inspected regularly</li> <li>- Use fall protection systems such as harnesses and guardrails</li> <li>- Conduct training in safe roof access and egress</li> <li>- Maintain three points of contact while on ladders</li> <li>- Install temporary edge protection where necessary</li> <li>- Use non-slip footwear</li> <li>- Limit roof access to authorised personnel only</li> <li>- Ensure a spotter is present when accessing roof</li> </ul>	2M

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
			<ul style="list-style-type: none"> <li>- Evaluate weather conditions before access</li> <li>- Provide ladder safety training</li> </ul>	
4. Installation of Mounting System	Incorrect use of tools, Structural damage	3H	<ul style="list-style-type: none"> <li>- Use proper tools and techniques for installation</li> <li>- Ensure structural integrity of mounting system</li> <li>- Follow manufacturer's instructions for installation</li> <li>- Use proper ladder safety techniques</li> <li>- Avoid over-tightening of bolts</li> <li>- Check for proper alignment of mounting system</li> <li>- Use proper lifting techniques</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> </ul>	2M
5. Panel Installation	Electric shock, Dropped panels	4A	<ul style="list-style-type: none"> <li>- De-energize system before installation</li> <li>- Use proper lifting techniques for panels</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> </ul>	2M
6. Electrical Connection	Arc flash, Poor connections	4A	<ul style="list-style-type: none"> <li>- De-energize system before connection</li> <li>- Use proper tools and techniques for connection</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> <li>- Avoid contact with live electrical components</li> <li>- Use proper grounding techniques</li> <li>- Avoid contact with moving parts</li> <li>- Use proper safety harness techniques</li> <li>- Avoid contact with sharp edges</li> <li>- Use proper fall protection techniques</li> <li>- Avoid contact with overhead power lines</li> <li>- Use proper communication techniques</li> <li>- Avoid contact with hot surfaces</li> <li>- Use proper warning techniques</li> <li>- Avoid contact with moving equipment</li> <li>- Use proper safety barriers</li> </ul>	2M

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
7. Final Inspection	Missed defects, Non-compliance with standards	3H		1L
8. Clean-Up and Debris Removal	Trip hazards, Improper disposal of waste	3H		1L
9. Handover to Client	Miscommunication, Incomplete documentation	2M		1L

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
10. Installation Breakdown	Equipment damage, Residual risks from installation	2M		1L
11. Remediation of Disturbed Areas	Environmental damage, Residual sit hazards	3H		1L
12. Project Completion Review	Inaccurate project closure, Poor performance assessment	2M		1L

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
13. Removal of Safety Signage and Barriers	Injury from premature removal, Confusion among workers	2M		1L
14. Conducting Feedback Sessions	Inadequate feedback collection, Misinterpretation of feedback	2M		1L
15. Staff Debrief	Stress or fatigue from debrief, Miscommunication during debrief	2M		1L

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
			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	

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 IF 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 2017

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) Regulations 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>

### 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

### 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>

### 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.