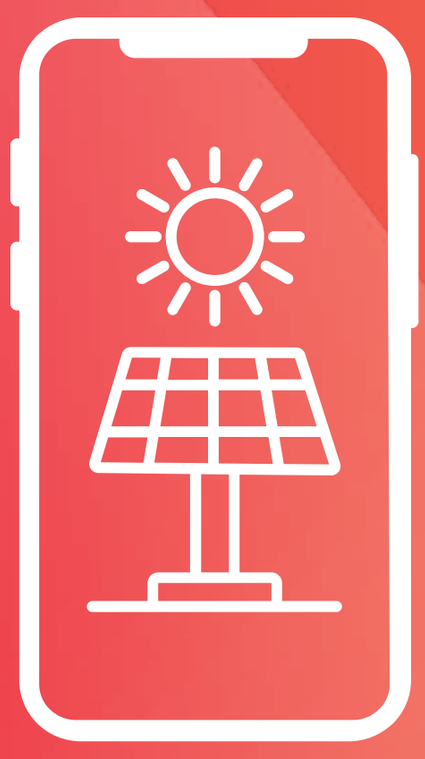


Pocket Guide

Large-Scale Solar Farm Construction

Pocket Guide to Large-Scale Solar Farm Construction

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1. About This Guide

Construction is one of the highest-risk industries, with workers injured and killed each year. As the **Large-Scale Solar Construction Industry** continues to grow across Australia, it brings its own risks and requires a different approach to managing safety.

The most common causes of serious injury or death in the large-scale solar construction industry are:

- **Contact with powerlines and electricity**
- **Mobile Plant**
- **Heat Stress**
- **Driving**
- **Manual Handling**

This pocket guide provides an introduction to the large-scale solar farm construction industry. As a newcomer to the industry, the aim of this pocket guide is to outline:

- What to expect working on a large-scale solar farm
- How to prepare best, before you start.
- The common risks, hazards and safety controls you need to be aware of to stay safe (refer to section 6).

This pocket guide is not designed for domestic solar installation or small-scale solar projects.



Who This Guide Is For

Whether you are new to large-scale solar construction, transferring from another industry, or joining from overseas, this guide will help you understand the basics of working safely in a solar farm environment.

This guide is designed for:

New starters entering the large-scale solar construction industry for the first time

Workers transferring from other industries
(e.g. civil construction, electrical, mining, agriculture, etc.)

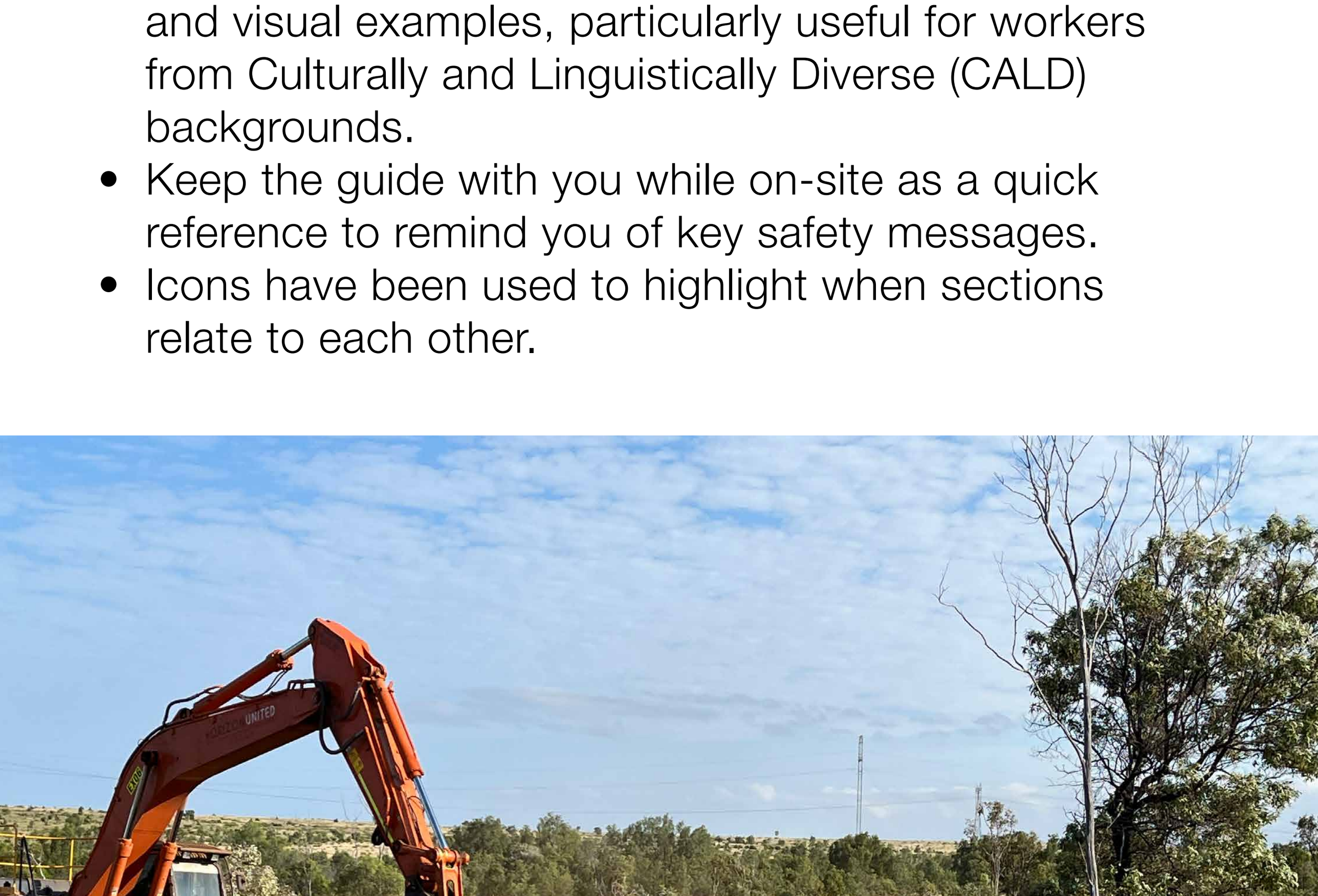
Backpackers and seasonal workers

Contractors and subcontractors new to large-scale solar work

How To Use This Guide

This guide can be used across large-scale solar construction projects throughout Australia. It is designed to give an overview of hazards, risks, and control measures related to the large-scale solar construction industry and is not a replacement for site-specific requirements. Always follow the instructions, procedures, and signage at your site. To use this guide:

- Read through each section before you apply to start work in the industry and/or have gained a role in the industry for the first time.
- Use the links (online only) for videos, diagrams, and visual examples, particularly useful for workers from Culturally and Linguistically Diverse (CALD) backgrounds.
- Keep the guide with you while on-site as a quick reference to remind you of key safety messages.
- Icons have been used to highlight when sections relate to each other.



2. Solar Farm Construction Basics

Purpose: This section provides a simple overview of the major phases of constructing a solar farm, to help workers understand the lifecycle and how their tasks fit into the broader project.

Why This Section Matters: Helps workers understand what's happening on site and where safety risks may exist during different stages of the build.

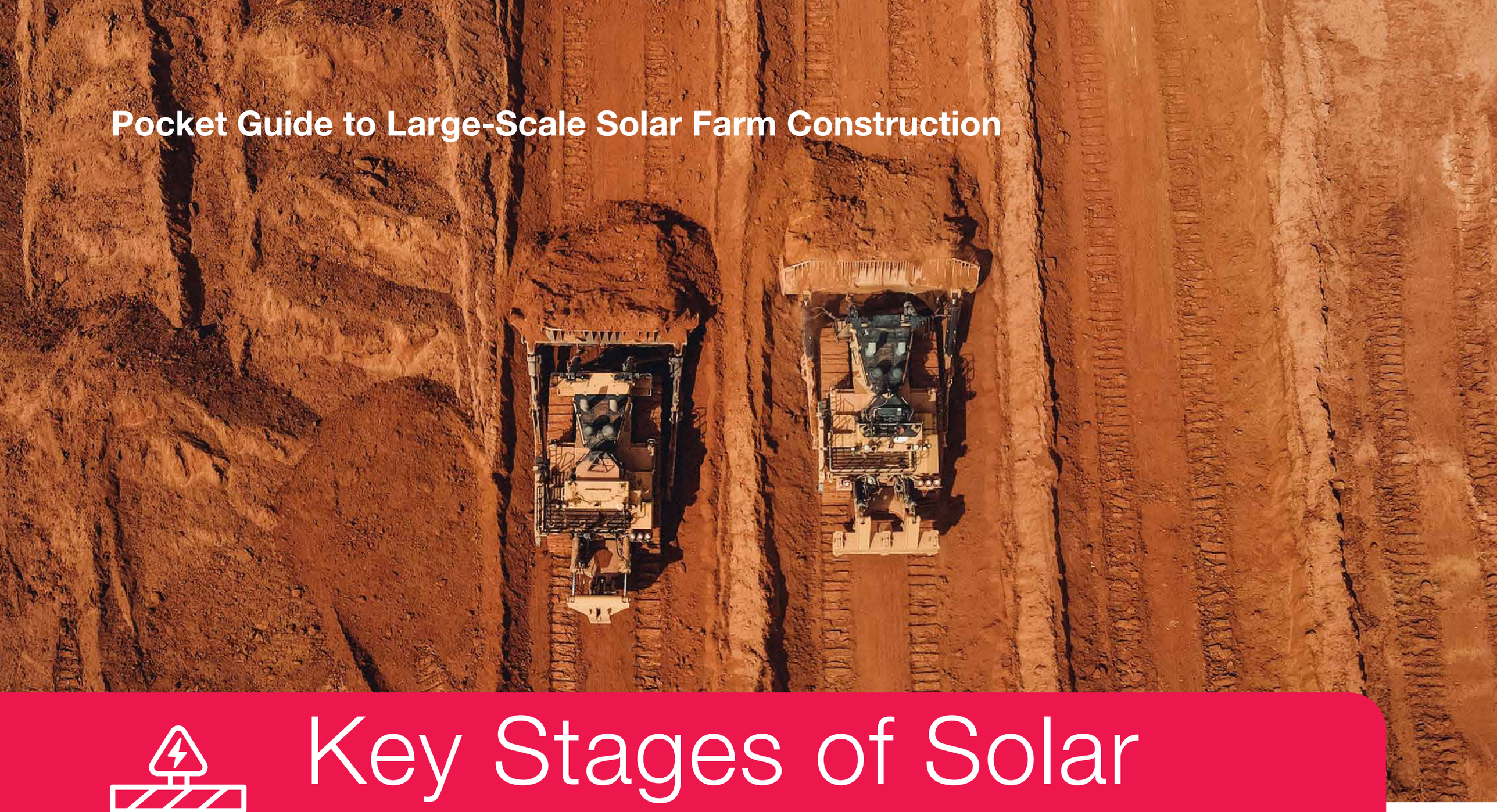
A solar farm is a large-scale site where thousands of solar panels convert sunlight into electricity. A typical site includes:

Solar arrays (rows of solar panels mounted on metal frames)

Inverters and transformers that convert and distribute power

Substations and Battery Energy Storage Systems (BESS) for grid connection

Access roads, drainage, and fencing



Key Stages of Solar Farm Construction

Plan the Job

- Check the site: land shape, soil, shade, vehicle access, and power grid connection.
- Assess environmental and cultural heritage impacts.
- Plan the layout: panels, inverters, cables, and substations.
- Get permits and approvals from local council and authorities.

Set Up the Site

- Main Roles for this stage (refer to section 5):

Labourers & Trade Assistants

Qualified Trades People

Mobile Plant Operators

- Set up site offices, worker break areas, and storage areas.
- Clear trees, scrub/bush, and level the ground.
- Build access tracks and put up site fencing.
- Add drains and erosion control to manage water and dirt.



Civil Works

- Main Roles for this stage (refer to section 5):

Labourers & Trade Assistants

Qualified Trades People

Mobile Plant Operators

Drillers / Pilling Crew

- Site establishment and clearing.
- Vegetation clearing, topsoil stripping and stockpiling.
- Establishment of storage areas and site compound of amenities.
- Earthworks, land grading. access roads and internal tracks.
- Drainage and stormwater management.
- Cable trenching and ducting, Trenching for underground services.
- Installation of conduits, ducts and pits.

Mechanical & Structural Installation

- Main Roles for this stage (refer to section 5):



Labourers & Trade Assistants



Qualified Trades People

- Use of powered mobile plant to drive steel piles.
- Install steel tubing onto piles and connect PV solar panel racking system.
- Place PV solar panels on frame.

Electrical Works

- Main Roles for this stage (refer to section 5):



Electricians & Trade Assistants



Qualified Trades People

- Connect the DC cables between the solar panels and the inverters.
- Connect the inverters to the transformers and grid connection points.
- Install grounding (earthing), lightning protection, and other safety devices.
- Test electrical systems.

Testing the System (Commissioning)

- Main Roles for this stage (refer to section 5):



Qualified Trades People

- Conduct full system checks and performance testing
- Confirm it meets safety and electrical standards
- Get final approval from the power network operator to connect to the grid. Obtain grid-connection approval from the network operator

Wrap-up & Go Live

- Main Roles for this stage (refer to section 5):



Labourers & Trade Assistants



Qualified Trades People

- Finish final site clean-up and inspections
- Hand over site plans and all project documents
- Train operations and maintenance (O&M) staff
- Switch the project to full-time running mode



3. Site Working Environment / Wellbeing

Purpose: This section explains the different site setups workers may encounter, helping them prepare for travel, accommodation, and day-to-day expectations.

Why This Section Matters: Helps workers prepare for remote sites and shared living, understand daily expectations, and look after their safety and wellbeing while on site and in camp.



Types of Sites

Solar Farms are generally constructed in regional areas. Some sites are close to a town while others are more remote:

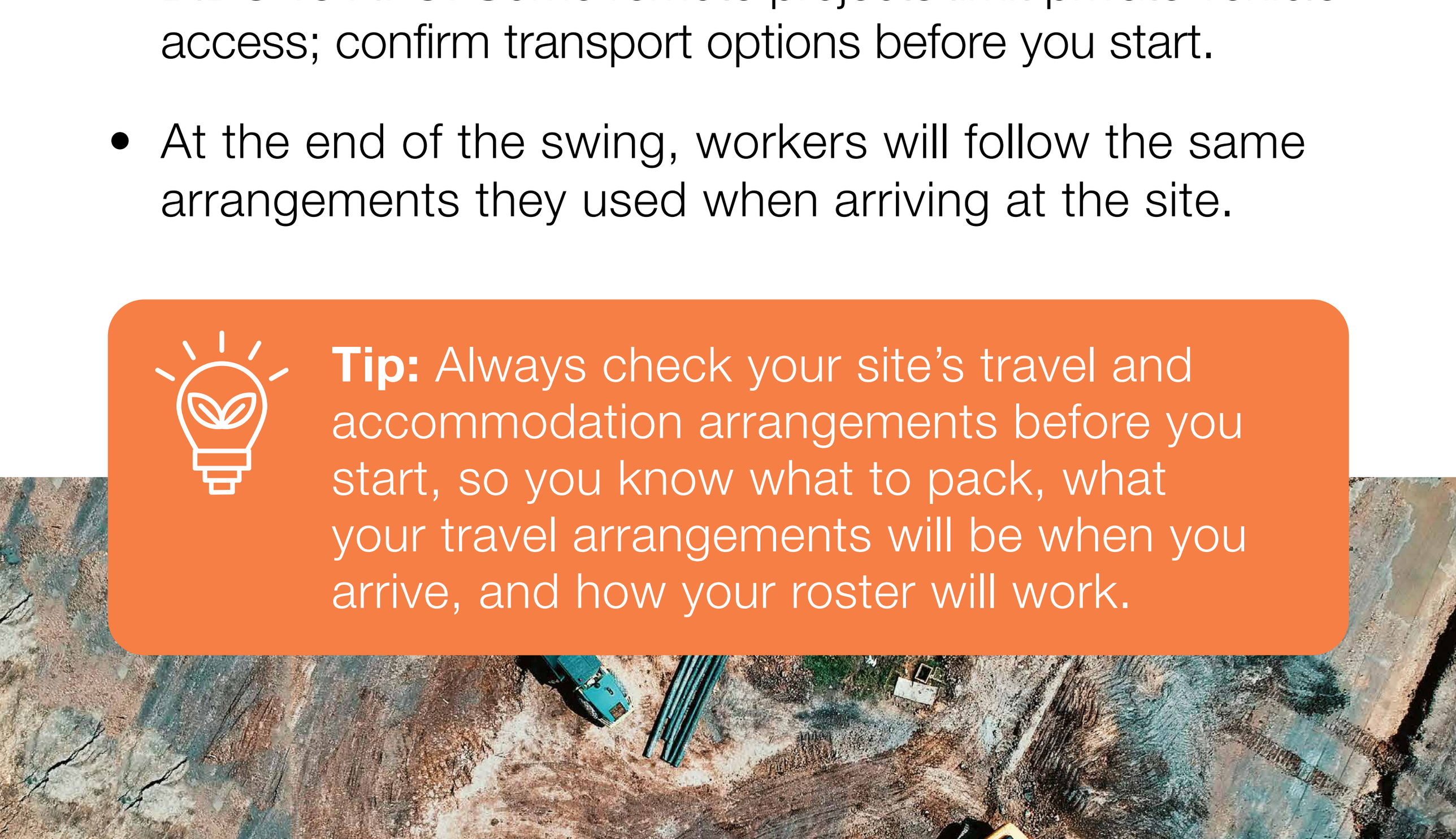
Town-based or regional projects:

- These sites are near a regional town or centre.
- Workers usually stay in local accommodation or their own housing and drive to and from the site each day.
- Accommodation may be provided by your employer, or you may have to organise this yourself. Always check with your employer when applying for work.
- Some remote projects limit private vehicle access; confirm transport options before you accept a role.

Remote projects:

- Isolated sites requiring longer travel and/or on-site accommodation.
- These sites are located far from major towns in regional Australia.
- Workers usually stay on-site during their rostered swing (refer to glossary)
- Some projects may use fly-in-fly-out (FIFO) arrangements, drive-in-drive-out (DIDO) arrangements, or a mixture of both, depending on location and access to airports and roads.
- DIDO vs FIFO: Some remote projects limit private vehicle access; confirm transport options before you start.
- At the end of the swing, workers will follow the same arrangements they used when arriving at the site.

Tip: Always check your site's travel and accommodation arrangements before you start, so you know what to pack, what your travel arrangements will be when you arrive, and how your roster will work.



Camp Living

Camps are designed to provide the essentials for safe and comfortable living while away from home. Understanding what to expect and how to prepare can make camp life easier and safer. Camps can range from basic dongas to fully serviced villages with dining halls, gyms, and laundry facilities.

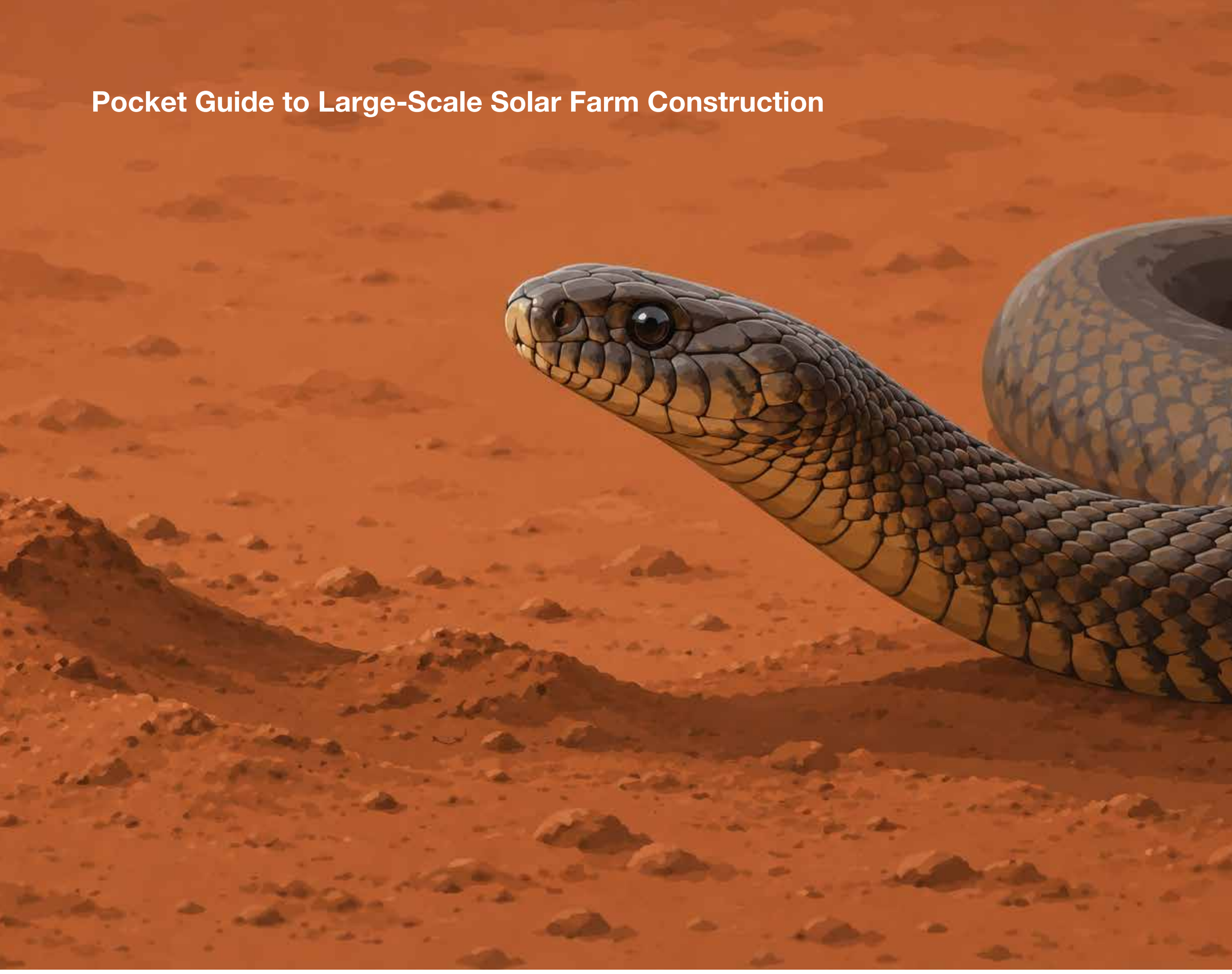
Before starting, confirm:

- Accommodation type and facilities (laundry, meals, internet, recreation).
- Room inclusions (linen, cleaning services, air conditioning).
- What you need to bring (toiletries, work gear, snacks, personal items).
- Travel arrangements and baggage limits.
- Site access requirements (photo ID, induction, PPE, medicals).

Due to the remote location of camps, below is an example of some personal items you may wish to take to the site:

- Medication: 2- 4 weeks supply of personal scripts and other medications such as Panadol, Nurofen, Antihistamines (hay fever), Imodium, etc.
- Blister packs.
- Chafe cream.
- Personal toiletries: shampoo, conditioner, soap, deodorant, etc.

Tip: Camp living often brings together people from diverse cultures in close quarters. It’s important to respect each other, follow camp rules, and work together to create a positive environment.

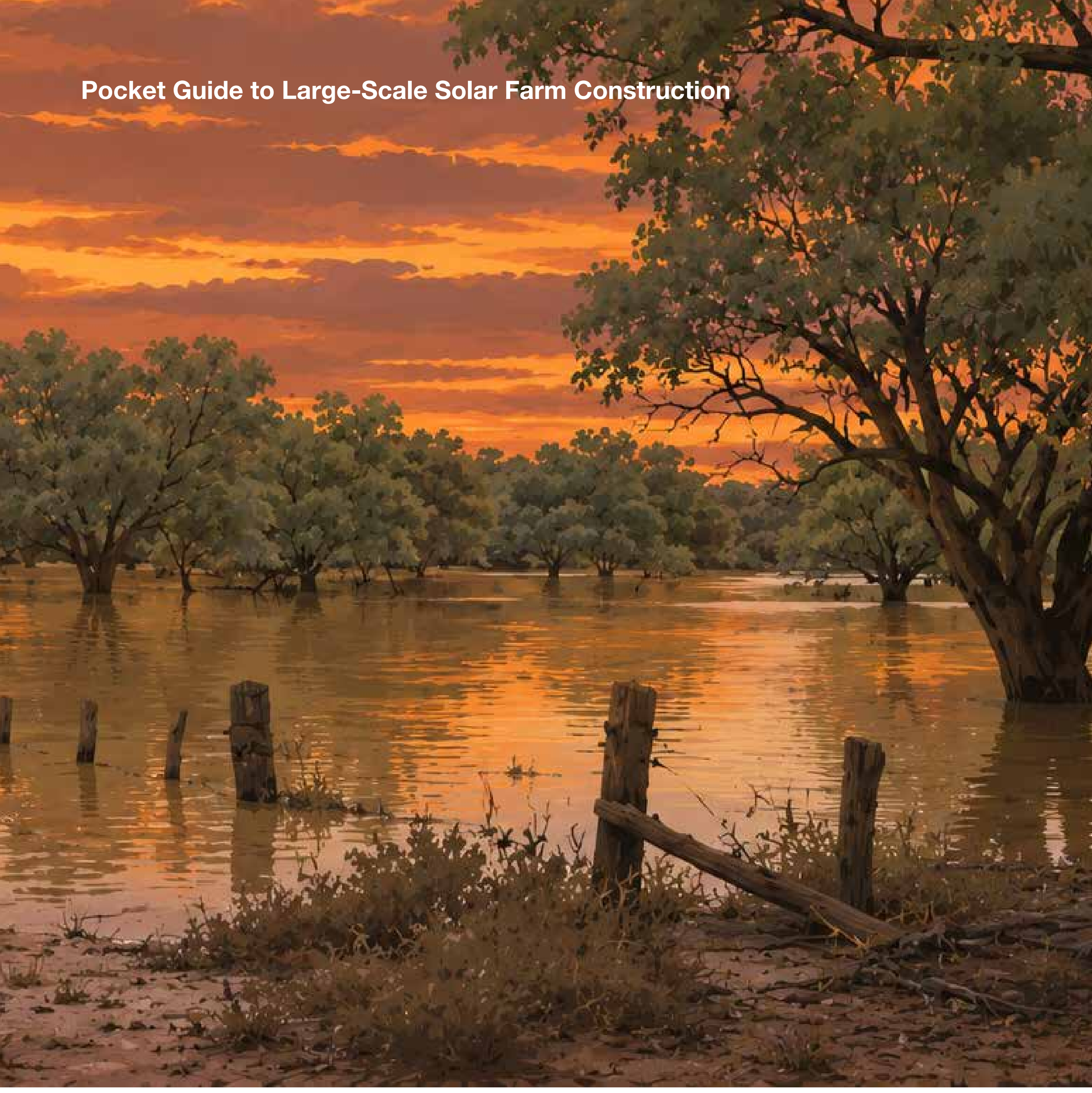


Regional Australia Conditions

Working in regional and remote areas means adapting to the local environment:

Flora and fauna: snakes, spiders, insects, and protected wildlife.

- Many solar farms are located in areas with native wildlife, including snakes, spiders, ants, kangaroos, insects, etc.
- Be alert when walking through long grass or moving stored materials; always use gloves and wear boots.
- Some wildlife and vegetation are protected under environmental legislation, so avoid disturbing local habitats.
- Follow site procedures for reporting wildlife sightings or incidents.
- The presence of culturally significant Aboriginal landmarks, flora, and heritage sites in regional Australia requires respectful consideration.



Weather: heat, strong winds, storms, dust, flooding and cyclones.

- Expect a wide range of weather, from extreme heat and UV exposure to strong winds, dust storms, heavy rain, and cold temperatures in the winter.
- Weather can change quickly, especially in inland and coastal regions, so always secure materials and check forecasts before starting outdoor work.
- Sun protection is essential: wear long sleeves, sunscreen, and a hat, and stay hydrated throughout the day.
- High winds and storms can affect lifting, working at heights, and driving conditions. Follow stop-work or stand-down instructions when issued.
- Severe weather may also impact living arrangements on site and travel at the end of a swing.



Limited amenities: longer travel times to shops or medical care.

- Regional and remote projects often mean longer travel times to shops, fuel, and medical services.
- Workers may need to be self-sufficient, carrying essentials like water, snacks, and basic first-aid supplies when travelling to and from the site.
- Medical emergencies can take longer to respond to, so always know where first-aid kits and emergency contacts are located.
- Respect the local community and environment, small towns often rely on these projects and expect workers to represent the company professionally.

Tip: Always follow local site rules for environmental protection, wildlife management, and heat-stress prevention.

4. Onboarding Essentials

Purpose: This section helps workers understand key questions to ask before accepting a role or starting on a job, including living arrangements, rosters, expectations, and fitness-for-work requirements.

Why This Section Matters: Helps workers arrive on site prepared, understand what's expected before starting work, and avoid confusion, stress, or safety issues during their first days on the job.

Important Questions to Ask/Consider

New starters may often feel stressed or upset if they're missing key details about the site. Considering and asking questions upfront helps you plan ahead, avoid surprises, and arrive fully prepared, especially as a beginner on large solar farm projects.

Site and Work Conditions

- Where is the site located, and how do I get there?
- What type of site is it, regional or remote?
- What are the expected working hours and roster (e.g. 2:1, Monday–Friday)?
- What kind of weather or environmental conditions should I prepare for?
- How do I get home if I want to leave?
- Am I physically fit for the job?
    - Do I have any injuries or health issues that may affect my performance?

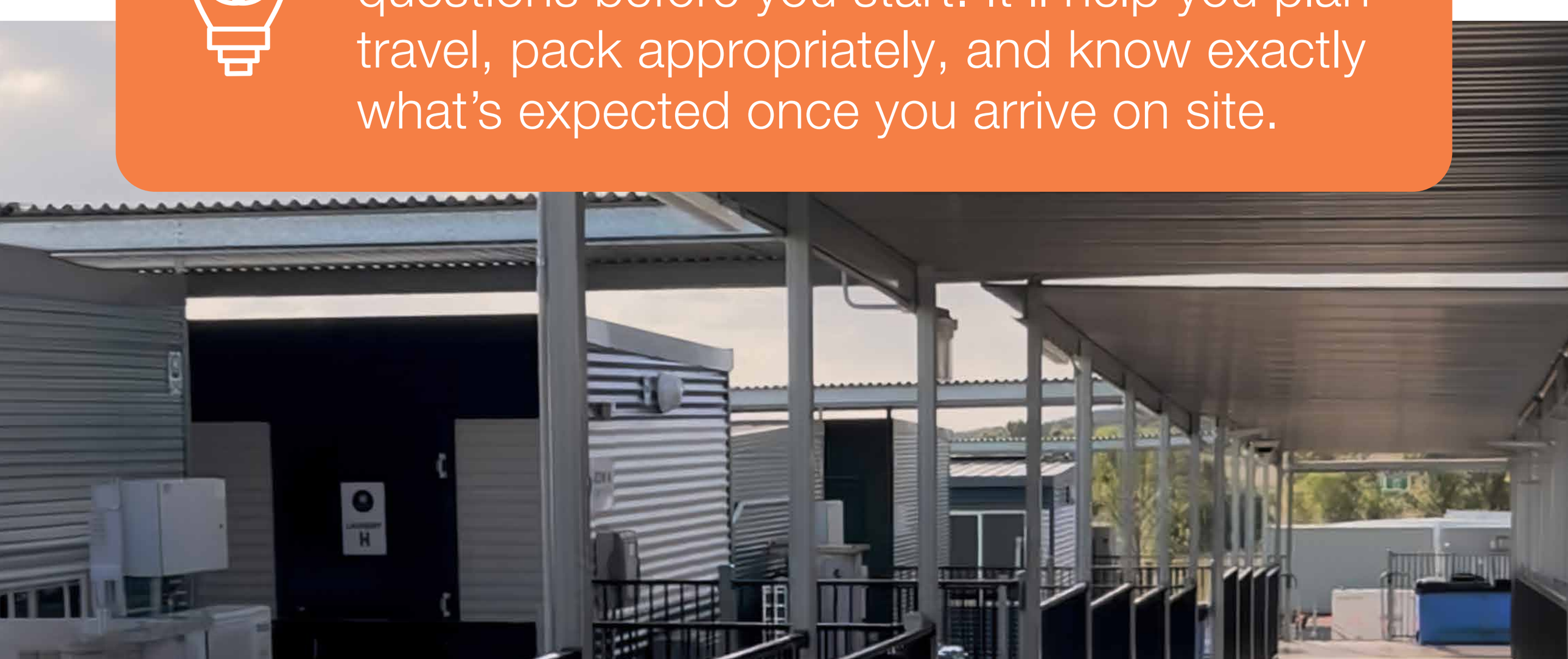
Living Arrangements / Wellbeing

- Is accommodation provided, or do I need to arrange my own?
- What facilities are available (laundry, meals, gym, phone reception, internet)?
- If it's a remote site, what are the rooms like, and are they shared or private?
- What travel is required to and from the site (drive, bus, flight)?
- Do I have any dietary requirements I need to make the site aware of?

Workplace Expectations

- What PPE or tools do I need to bring?
- What PPE or tools are supplied?
- What are the site's safety and behavioural standards?
- Are there specific induction or medical requirements before mobilisation?
- Who do I contact for onboarding information or if I have issues during deployment?

Tip: Write down the answers to these questions before you start. It'll help you plan travel, pack appropriately, and know exactly what's expected once you arrive on site.





5. Typical Roles & Responsibilities

Purpose: This section outlines the main roles on a solar farm construction project, what each role does, and the licences or competencies required, helping workers understand who does what and how to stay safe around others.

Why this Matters: Helps newcomers to the industry understand the different roles, so people only do work they are trained for and can work safely around others on site.

Large-scale solar farm construction brings together people from many trades and backgrounds, from general labourers to electricians, plumbers, plant operators, and supervisors.

Understanding the main roles, your responsibilities, and competency requirements helps keep everyone safe and ensures work runs smoothly.



Labourers and Trade Assistants

General Role:

- Support general site tasks such as manual handling, tubing, swaging, and tool use (grinders, cutters, booming guns, etc.).
- May assist with panel installation, cable pulling, and basic housekeeping.
- Must always follow supervisor directions and stay clear of mobile plant and restricted zones.
- Trade Assistant: Support your specific trade team (electricians, mechanics, riggers, etc.) with tasks like material prep, equipment setup, tool management, and quality checks.
- Main stages for role (Refer to section 2):
  - Set up the Site
  - Civil Works
  - Mechanical & Structural Installation
  - Electrical Works
  - Testing the System (Commissioning)
  - Wrap-up & Go Live

Before You Start Checklist - Tick these off so you're ready and safe from day one:

- [ ] Photo ID & right-to-work documents
- [ ] General Construction Induction Card
- [ ] Site induction training completed
- [ ] Fit for work (medically okay, rested, hydrated, no medications affecting safety)
- [ ] Basic PPE ready (hard hat, steel-cap boots, gloves, long sleeves/pants, safety glasses)
- [ ] Know safe lifting rules and exclusion zone signs
- [ ] Know your supervisor's name and your buddy (work partner)
- [ ] Read and understand the Safe Work Method Statement (SWMS) or Job Safety Analysis (JSA) - ask questions if anything's unclear
- [ ] Know how to safely use your tools (get training if needed)

Tip: Stay alert, lift smart (bend knees, not back), and ask before touching new tools. Be the eyes/ears for your team - call out hazards early. Safety beats speed every time.

Qualified Trades People (All Trades)

General Role:

- Use your trade skills to install, connect, repair, or maintain equipment like wiring, pipes, machinery, or structures specific to your qualification.
- Work in high-risk areas only with proper permits and supervision.
- Follow site rules for hazardous tasks (e.g. grinding, welding, working near live power) and get approvals first.
- Main stages for role (Refer to section 2):
  - Set up the Site
  - Civil Works
  - Mechanical & Structural Installation
  - Electrical Works
  - Testing the System (Commissioning)
  - Wrap-up & Go Live

Before You Start Checklist - Tick these off so you're ready and safe from day one:

- ☐ General Construction Induction Card
- ☐ Trade licence/qualification current
- ☐ Site induction and permit training completed
- ☐ Trade appropriate PPE ready
- ☐ Know procedures for hazardous tasks in your area
- ☐ Read and understand SWMS / JSA – ask if anything's unclear

Tip: Confirm your skills match the job. Share your experience to help the team work safer and faster.

Mobile Plant Operators

General Role:

- Safely operate heavy machines such as telehandlers, excavators, cranes, graders, dozers, piling rigs, EWPs (cherry pickers), and cable-laying gear.
- Stick to approved zones, do pre-start checks daily, keep safe distances, and follow site traffic rules.
- Report faults or hazards right away—your eyes on the ground keep everyone safe.
- Main stages for role (Refer to section 2):
  - Set up the Site
  - Civil Works
  - Mechanical & Structural Installation
  - Testing the System (Commissioning)

Before You Start Checklist - Tick these off so you're ready and safe from day one:

- [ ] General Construction Induction Card
- [ ] Relevant licence (e.g., HR, crane, EWP)
- [ ] Appropriate training and experience for equipment
- [ ] Site-specific Traffic Management Induction
- [ ] Read and understand SWMS/JSA - ask if anything's unclear

Tip: Your machine is your responsibility - pre-starts save lives. Speak up about spotter needs or blind spots.

Supervisors and Leading Hands

General Role:

- Oversee work crews and ensure safe systems of work are followed.
- Confirm workers are competent, inducted, and fit for work before starting each shift.
- Coordinate with other work fronts to manage traffic, mobile plant, and exclusion zones.
- Serve as the primary influence on new starters, shaping how they behave and maintain safety standards on site.
- Main stages for role (Refer to section 2):
  - Set up the Site
  - Civil Works
  - Mechanical & Structural Installation
  - Electrical Works
  - Testing the System (Commissioning)
  - Wrap-up & Go Live

Before You Start Checklist – Supervisors and Leading Hands:

- [ ] General Construction Induction Card
- [ ] Supervisor / Leadership training (internal or external)
- [ ] Current First Aid / CPR
- [ ] Site-specific traffic management and exclusion zone induction
- [ ] Read and understand SWMS/JSA for your crew's tasks

Tip: Lead by example - stop unsafe work instantly. Praise good safety to build team habits.

Drillers / Piling Crew

Role:

- Operate drill rigs to bore holes and install piles to correct depth and alignment.
- Work as part of a ground crew to guide piles, clear work areas, handle tools, and check pile positions.
- Maintain exclusion zones around the drilling area to keep others clear.
- Communicate constantly with spotters, rig operators, surveyors, and supervisors.
- Report changes in soil conditions, underground obstacles, or equipment issues immediately.
- Typical Licencing/Competencies needed before starting: General Construction Induction Card, VOC for drill rig operation (operator only), High-risk work licences.
  - Main stages for role (Refer to section 2):
  - Set up the Site
  - Civil Works
  - Mechanical & Structural Installation

Before You Start Checklist – Drillers/Piling Crew:

- [ ] General Construction Induction Card
- [ ] Appropriate training and experience for the role/equipment.
- [ ] Relevant licences
- [ ] Ensure you fully understand and acknowledge the SWMS, JSA, or other relevant task documentation. Seek clarification on any points you find unclear before commencing work.



6. Hazard Identification & Controls

Purpose: This section provides simple fact sheets on the major hazards found on solar farm construction sites, explaining how injuries occur, and the key controls workers must follow to stay safe.

Why this Matters: Helps workers recognise dangers quickly and talk about safety in a clear and consistent way, by focusing on the highest-risk hazards.

What is a Hazard?

A hazard is anything that can cause harm on site, for example:

- Electricity
- Mobile plant
- Heat
- Manual handling
- Weather
- Wildlife
- Working near trenches, edges, or heavy equipment

What is a Risk?

A risk is the chance that someone could be hurt by a hazard and how serious that harm could be.

- Example: Heat is a hazard; heat stress on a 40°C Day is the risk.



What is a Control Measure?

A control is an action, rule, or piece of equipment that reduces the risk of injury.

Controls include:

- Exclusion zones
- Spotters
- PPE
- Safe work procedures
- Permits (electrical, hot work, confined space)

How to Read the Hazard Fact Sheets

- Each fact sheet in this section includes:
- What the hazard is
- How people get hurt
- Real examples from solar farms
- Simple controls to follow



Hazard Fact Sheet – Manual Handling (Hazardous Manual Tasks)

What is the Hazard?

Manual handling involves lifting, carrying, pushing, pulling, or holding objects. On solar farms, this often includes panels, tubing, racking components, or cables that vary in size and weight (up to 130 kg).

Types of Injuries / Health Effects

- Back, shoulder, and neck strains
- Sprains and muscle tears
- Long-term repetitive strain injuries
- Cuts or bruises from awkward handling

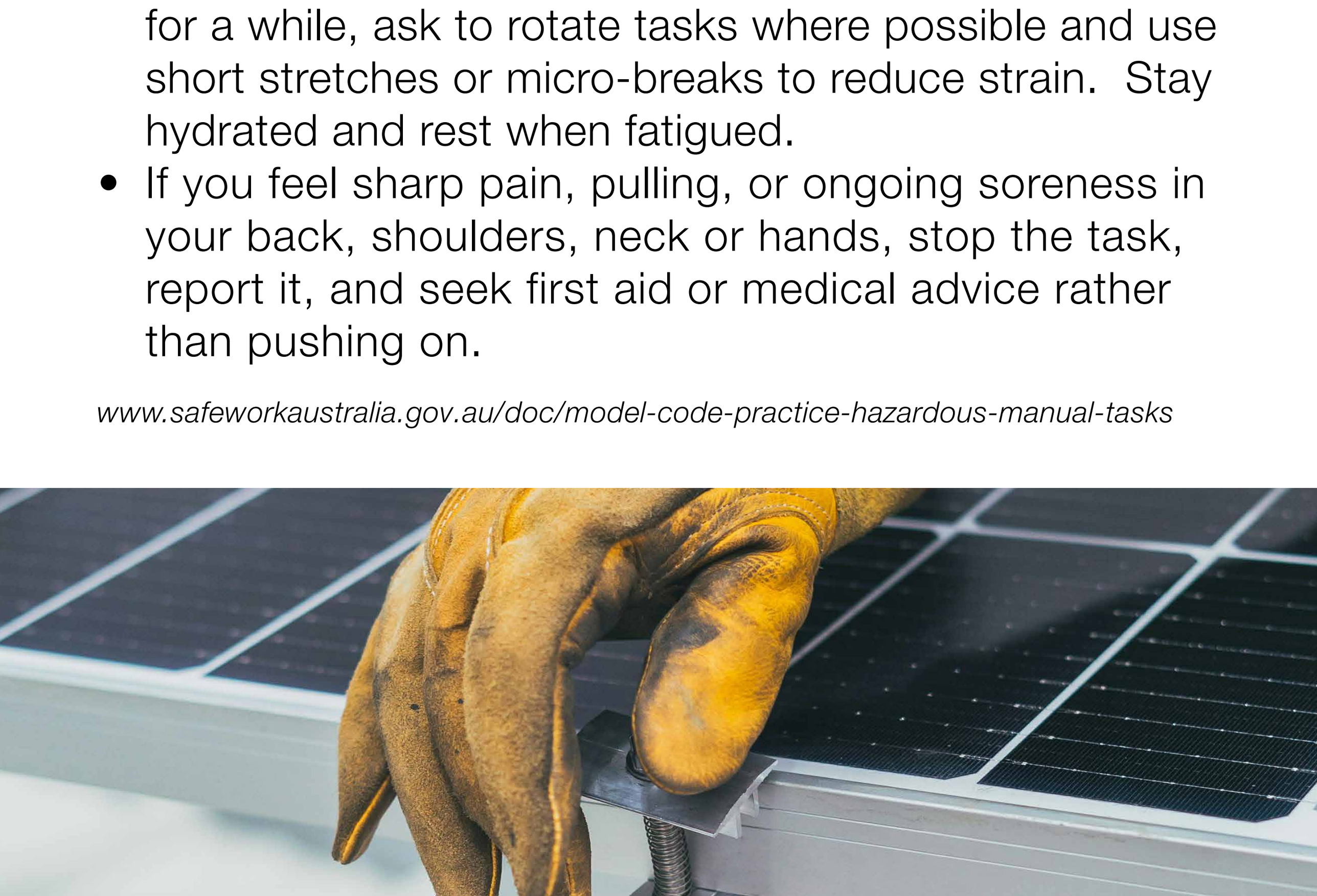
Causes / Scenarios

- Lifting panels or tubes without mechanical aid or help
- Working in awkward positions (e.g. bending, twisting, reaching)
- Repetitive actions during racking or cable pulling
- Fatigue from heat, long shifts, or dehydration
- Poor housekeeping causing slips or awkward footing

Control Measures

- Use mechanical aids (telehandlers, trolleys, lifting frames) whenever possible.
- Plan each lift, check weight, path, and footing before moving the load.
- Keep an eye out for mud, ruts, cables, off-cuts and open trenches, and take a moment to move trip hazards or ask for housekeeping support before carrying a load through.
- Wear gloves that give you grip without being too bulky and choose footwear with good ankle support and tread to help on uneven or sloping ground.
- Use team lifts for heavy or awkward items.
- If you have been doing the same lifting or pulling task for a while, ask to rotate tasks where possible and use short stretches or micro-breaks to reduce strain. Stay hydrated and rest when fatigued.
- If you feel sharp pain, pulling, or ongoing soreness in your back, shoulders, neck or hands, stop the task, report it, and seek first aid or medical advice rather than pushing on.

www.safeworkaustralia.gov.au/doc/model-code-practice-hazardous-manual-tasks



Safe Work Australia – Hazardous Manual Tasks Code of Practice



Case Example:

Shoulder Strain During Panelling:
A contractor reported a sore left shoulder after repetitive panelling activities. The discomfort was attributed to repeated lifting and possibly poor technique.

Key Lessons Learned:

- Repetitive manual tasks can lead to cumulative strain injuries.
- Early reporting and intervention can prevent more serious injuries.



Hazard Fact Sheet – Mobile Plant

What is the Hazard?

Mobile plant includes any equipment that moves, such as telehandlers, cranes, graders, piling rigs, trucks, excavators, and dumpers..

High volumes of vehicle movement and limited visibility create major risks for pedestrians and operators.

Types of Injuries / Health Effects

- Fatalities from collisions or rollovers
- Crush injuries
- Fractures or amputations

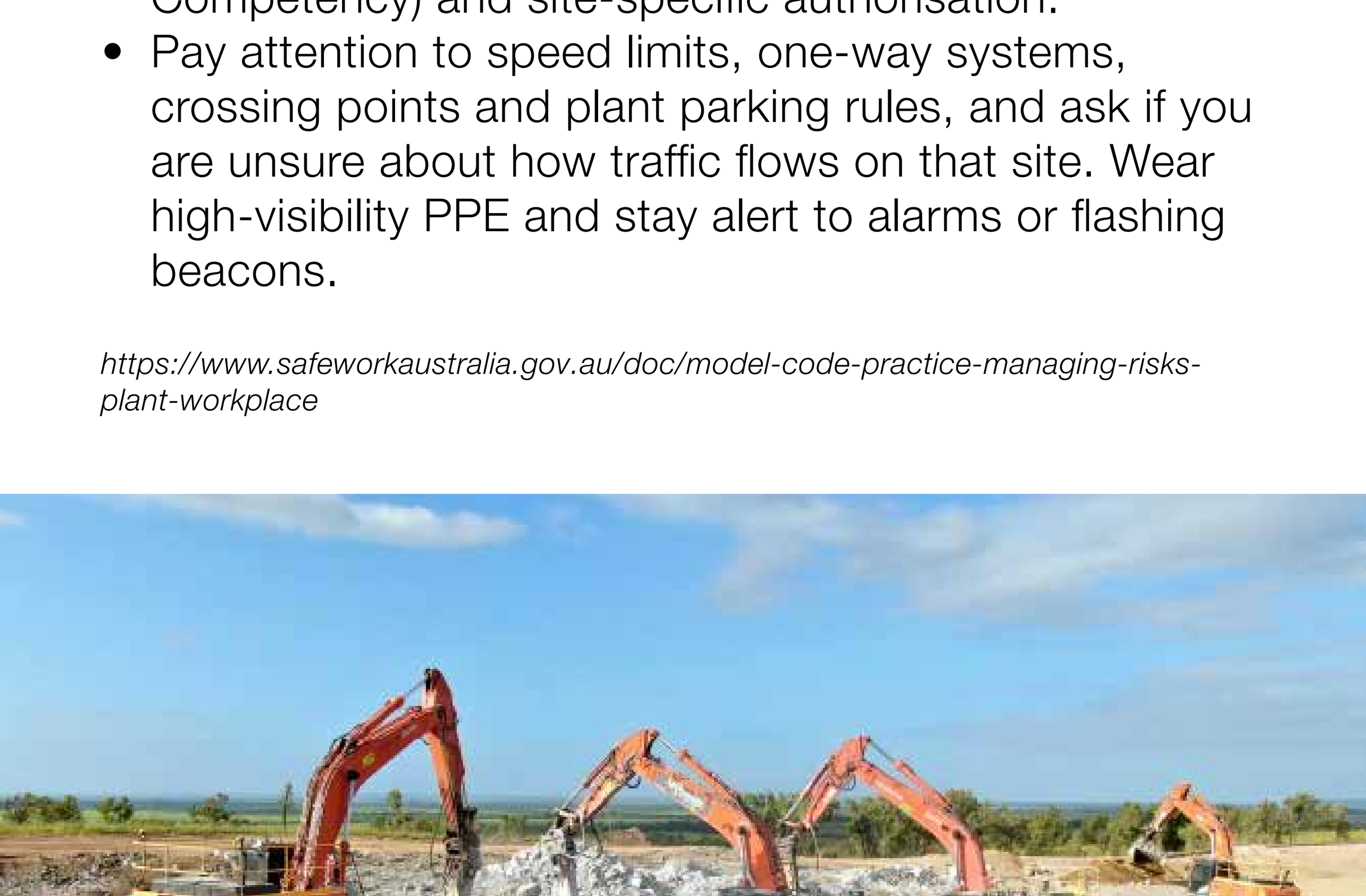
Causes / Scenarios

- Entering exclusion zones or blind spots
- Lack of spotters when reversing or slewing
- Fatigue or distraction while operating plant
- Pedestrians walking near heavy equipment
- Poor communication between work groups

Control Measures

- Learn and follow the site's exclusion zones and haul routes and never walk or stand in an operator's blind spot or under a suspended load.
- Before crossing near moving plant, stop, make eye/radio contact with the operator and/or spotter wait for a signal, and only then move through the area.
- Do not use phones, headphones or earbuds when walking or working around mobile plant, and listen for reversing beepers, radios and spotter instructions.
- Stay out of exclusion zones unless authorised.
- Use spotters when visibility is restricted.
- Operators must have a VOC (Verification of Competency) and site-specific authorisation.
- Pay attention to speed limits, one-way systems, crossing points and plant parking rules, and ask if you are unsure about how traffic flows on that site. Wear high-visibility PPE and stay alert to alarms or flashing beacons.

https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-risks-plant-workplace



Safe Work Australia – Managing Risks of Plant in the Workplace



Case Example:

Loss of Control on Muddy Ground (Earthmoving Plant Near Miss)

Earthmoving plant operated on rain-softened, slippery ground, leading to sliding, near-rollovers, and loss of control under production pressure.

Key Lessons Learned:

- Be extra careful after rain. Soft, muddy ground can make heavy machines slide unexpectedly.
- If the ground feels unsafe or too slippery, speak up and wait for guidance before continuing work.
- Stick to the safest paths on site and avoid areas that look boggy, uneven, or rutted.



Hazard Fact Sheet – Electrical Safety

What is the Hazard?

Electrical hazards occur when people are exposed to live electricity, to damaged electrical equipment, or when working near electrical parts that are still energised.

During commissioning, some parts of a solar farm operate at high voltage. Solar panels can continue to produce electricity in daylight, meaning some electrical parts may remain live even after the system has been shut down.

Types of Injuries / Health Effects

- Electric shock or electrocution
- Burns or arc flash injuries
- Secondary injuries (falls, muscle spasms)

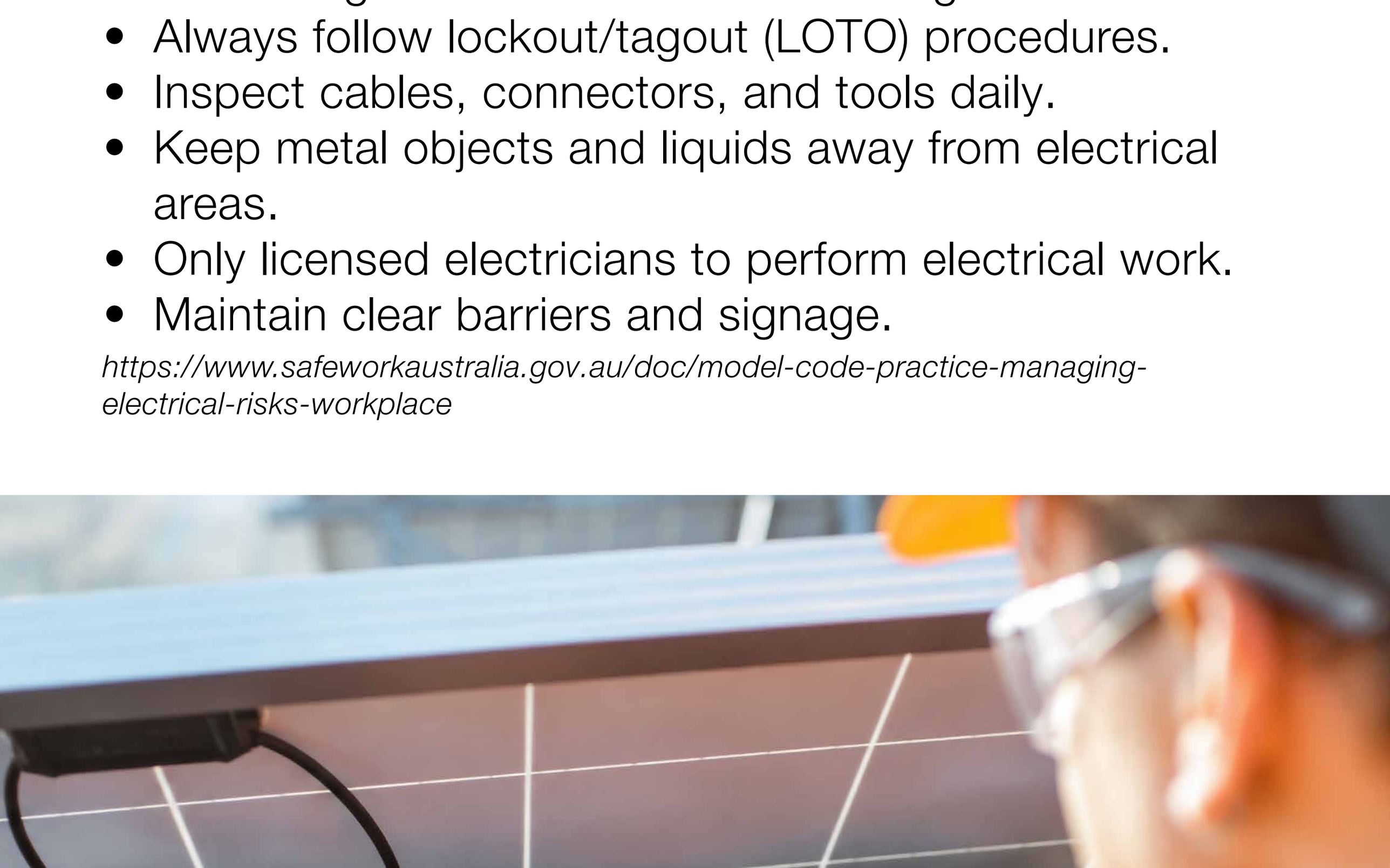
Causes / Scenarios

- Contact with overhead or underground services
- Entering live commissioning zones without a permit (often marked by green flags)
- Damaged or exposed cables during trenching or connection work
- Not testing the circuit for voltage before touch
- Use of non-insulated tools.

Control Measures

- Do not enter live zones without a valid permit.
- Never assume cables, inverters, Power Station Units (PSUs) or switchboards are de-energised and keep clear of equipment you are not trained or authorised to work on.
- Learn what the different colours and signs mean on your site (e.g. green flags for commissioning zones) and do not cross tape, barricades or locked gates without permission and a clear task.
- If you are not a licensed electrician, do not open covers, test, connect, disconnect or “have a look” inside electrical equipment or junction boxes, even if something seems loose or not working.
- Always follow lockout/tagout (LOTO) procedures.
- Inspect cables, connectors, and tools daily.
- Keep metal objects and liquids away from electrical areas.
- Only licensed electricians to perform electrical work.
- Maintain clear barriers and signage.

https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-electrical-risks-workplace



Safe Work Australia – Managing Electrical Risks in the Workplace



Case Example:

Electric Shock and Minor Burns

An operative entered an energised inverter station during commissioning without authorisation, assuming it was isolated. They contacted live terminals, resulting in an electric shock and minor burns. Key issues include:

- No LOTO verification
- Poor access control
- Unclear handover to commissioning

Key Lessons Learned:

- Be cautious around water after rain, wet areas can hide serious electrical dangers.
- Only people who are properly trained should handle high-voltage cables. If it’s not your job, don’t touch it.
- If something about the area feels unsafe or different from usual, pause and let your supervisor know before continuing.



Hazard Fact Sheet – Driving and Traffic Hazards

What is the Hazard?

Driving on and around solar farms involves risks from fatigue, long travel distances, unsealed roads, and high vehicle traffic between work areas.

Types of Injuries / Health Effects

- Serious or fatal injuries from rollovers or collisions
- Musculoskeletal injuries from poor posture or vibration
- Injuries during loading/unloading

Causes / Scenarios

- Fatigue after long shifts or travel to site
- Speeding or ignoring site speed limits
- Wildlife hazards and poor road conditions
- Operating vehicles without site induction or training

Control Measures

- Drive only if authorised and competent. Always wear your seatbelt.
- Follow all traffic signage and posted speed limits.
- Slow down on unsealed, wet, dusty, or rutted roads, increase your following distance, and avoid sudden braking or sharp turns that can cause rollovers.
- Do not drive fatigued.
- Complete daily vehicle checks (tyres, lights, fluids).
- Scan ahead for animals, especially at dawn, dusk and night.

Case Example:

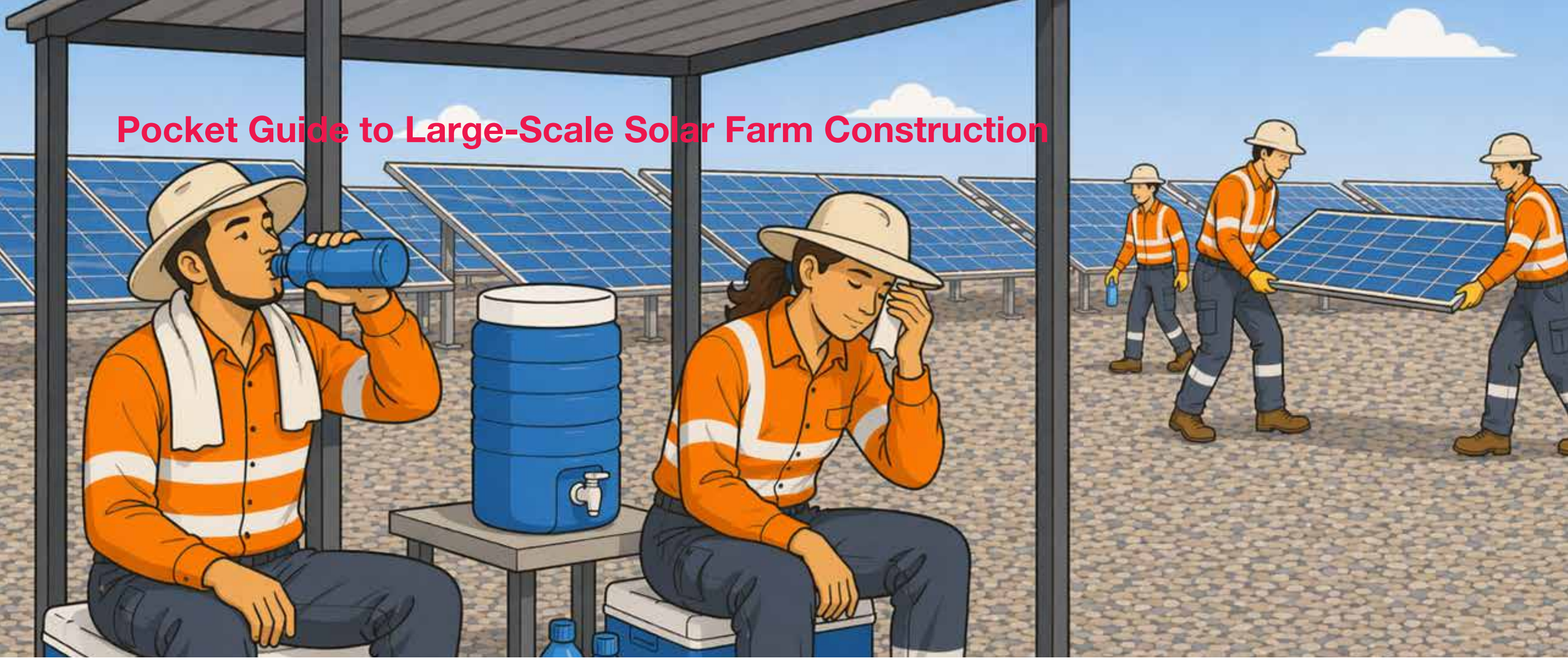
Vehicle Crashes on Rural Roads to/from Solar Sites
Fatalities have occurred on rural roads used for commuting to solar farms, where narrow shoulders, poor visibility, and high heavy-vehicle volumes created increased collision risk for workers travelling to site.

Key Lessons Learned:

- Drive carefully on rural roads, slow down, watch for sharp edges, and be alert for trucks.
- Use provided transport or shuttles when available. It's safer than long solo drives.
- Avoid driving when tired. Take breaks and speak up if you're not fit to travel.

https://www.safeworkaustralia.gov.au/doc/general-guide-workplace-traffic-management

Safe Work Australia – General Guide: Workplace Traffic management



Hazard Fact Sheet - Heat Stress

What is the Hazard?

Heat stress occurs when the body cannot properly cool itself, leading to fatigue, dehydration, heat exhaustion, or heat stroke. Solar farm construction involves long periods outdoors in high temperatures, direct sunlight, and reflective surfaces, increasing risk.

Types of Injuries / Health Effects

- Dehydration
- Heat rash, cramps, and exhaustion
- Heat stroke (medical emergency)
- Fatigue and impaired concentration
- Increased risk of incidents or errors

Causes / Scenarios

- Working outdoors in extreme heat or high UV conditions
- Wearing inappropriate clothing/PPE without shade or rest periods
- Inadequate water intake
- Poor acclimatisation for new workers or FIFO personnel
- High work rates or heavy manual handling in hot environments

Control Measures

- Slow down heavy or fast-paced tasks in the hottest part of the day and speak up if the pace feels unsafe.
- Take your breaks in shaded or cooler areas whenever possible and use them to cool down, not keep working.
- Sip water often (not large amounts all at once) and use electrolyte drinks if you are sweating heavily.
- Wear light, breathable, sun-protective clothing, a wide-brim hat and sunscreen, and change sweat-soaked clothes when you can.
- Notice early signs like headache, dizziness, cramps, confusion or nausea, and stop work and get help immediately if they appear.
- If you are new to site or just back from time off, ease into full workloads over several days to let your body acclimatise.

https://www.safeworkaustralia.gov.au/doc/guide-managing-risks-working-heat



Safe Work Australia – Guidance Material: Managing the risks of working in heat



Case Example:

Worker Overheating During Panel Handling in Extreme Conditions

Workers observed installing 25 kg panels in temperatures above 40°C with strong winds. Work continued over long shifts despite unsafe thermal conditions, leading to near misses from heat exhaustion and physical fatigue.

Key Lessons Learned:

- Take breaks in the shade and drink water often. Staying cool helps prevent heat exhaustion.
- Stop work if the heat feels too much, tell your supervisor straight away.
- Look out for your teammates - if someone looks unwell, get help immediately.



Hazard Fact Sheet
- Psychosocial Wellbeing

What is the Hazard?

Psychosocial hazards relate to aspects of work that can impact mental health and well-being, including work demands, fatigue, social isolation, poor support, and interpersonal conflict. FIFO/DIDO work and remote construction living conditions can heighten these risks.

Types of Injuries / Health Effects

- Stress, anxiety, and depression
- Sleep disruption and fatigue
- Relationship strain
- Reduced focus and decision-making ability
- Increased risk-taking or substance misuse

Causes / Scenarios

- Extended time away from family and support networks
- Long or irregular rosters impacting sleep and rest
- Poor camp culture or limited recreation options
- Lack of communication or recognition at work
- Exposure to traumatic incidents or conflict on site
- Perceived lack of control over work demands

Control Measures

- Make regular time to call, message or video chat with family, friends or support networks, and try to build a small support circle on site (e.g. people you eat or walk with).
- Pair up with a workmate, especially for your first couple of swings, and agree to check in on each other about how you are coping with work, camp and home life.
- Prioritise good sleep, regular meals, hydration and some light exercise most days (e.g. walks around camp, stretching, gym if available) to help manage stress and fatigue.
- Use days off to rest properly and do things you enjoy, rather than only “recovering” from work; try to plan something to look forward to each swing.
- If your site offers EAP (Employee Assistance Program), mental health hotlines, peer support or a site paramedic/first aider, save the contact details in your phone and use them when you need to talk.
- Check in if someone seems withdrawn, irritable or “not themselves”, and encourage them to talk or seek help; small conversations can make a big difference.
- If work demands, rosters, conflict or camp issues are affecting your mental health, talk with your supervisor, HSR or a trusted person early rather than waiting until it feels unmanageable.

Safe Work Australia – Model Code of Practice: Managing Psychosocial Hazards at Work https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-psychosocial-hazards-work MATES in Construction – Support for Workers in the Construction Industry - https://mates.org.au/ Beyond Blue – https://www.beyondblue.org.au/mental-health/wellbeing-action-tool

Safe Work Australia – Model Code of Practice: Managing Psychosocial Hazards at Work



Case Example:

Isolation on Remote FIFO/DIDO Sites

Remote-site workers described feeling isolated and unsupported, particularly when working long hours in harsh environments. Lack of mentoring, inconsistent supervision, and poor communication contributed to psychological strain.

Key Lessons Learned:

- Stay connected, check in with teammates and supervisors regularly.
- Take breaks and rest properly, fatigue affects your mood and your safety.
- Ask for support, let someone know if you're feeling stressed or run down.



Hazard Fact Sheet - Substations & Battery Energy Storage Systems (BESS)

What is the Hazard?

Substations and Battery Energy Storage Systems (BESS) contain high-voltage electrical equipment used to convert, manage, and store power. These areas can become live during construction and commissioning. Entry is restricted and requires permits and authorisation.

Types of Injuries / Health Effects

- Electric shock or electrocution
- Arc flash burns
- Fire & explosion injuries
- Toxic smoke inhalation in the event of battery thermal runaway or fire

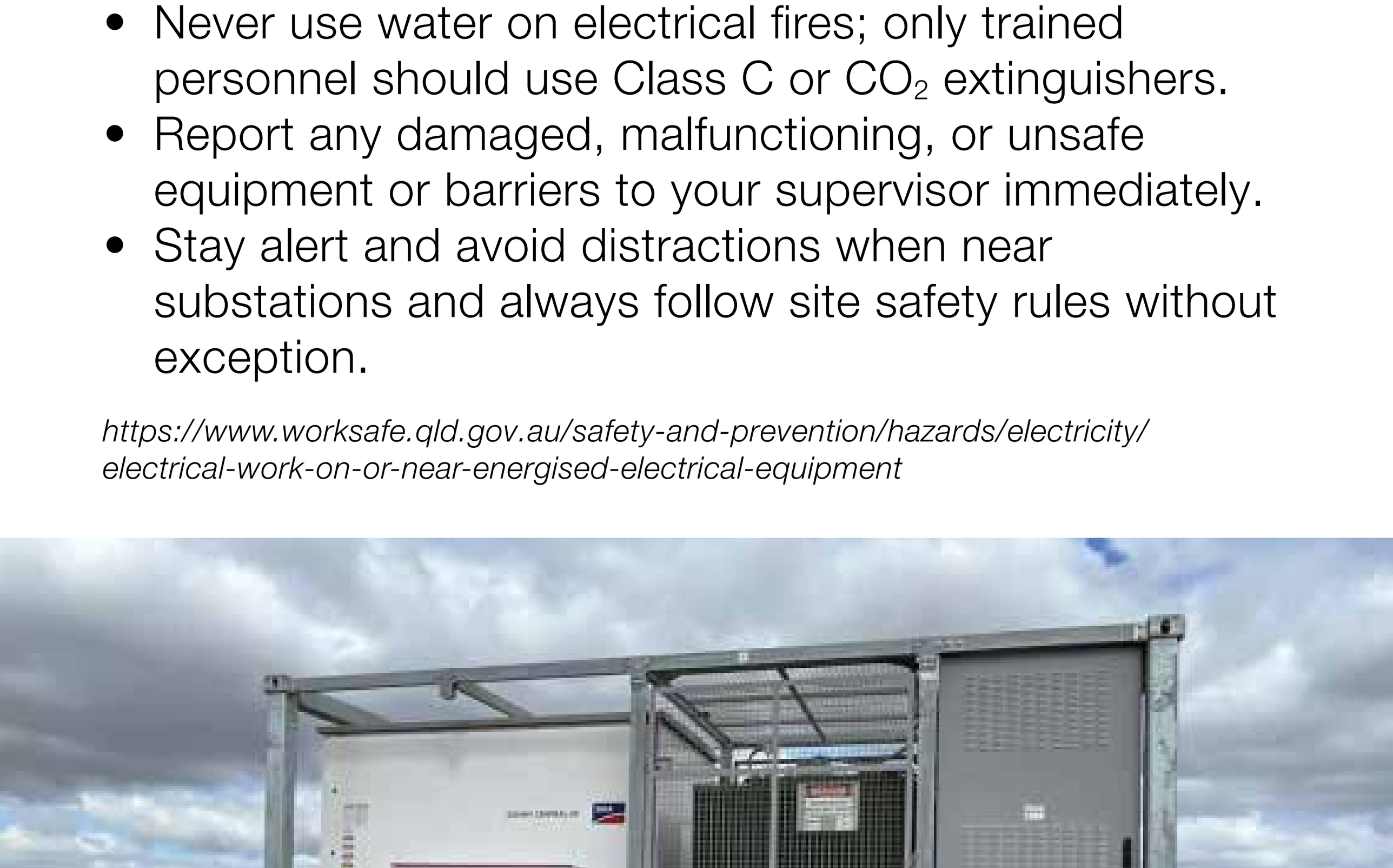
Causes / Scenarios

- Entering commissioning zones without a permit
- Working near energised cables, transformers, inverters, or switchgear
- Tools, scaffolding, or EWP booms contacting live equipment
- BESS battery faults / thermal runaway
- Poor communication between construction and commissioning crews
- Lack of awareness of substation boundaries

Control Measures

- Only enter substations or commissioning zones if you have proper authorisation and a permit.
- Always look for and respect warning signs, barricades, flags, and lockout points around high-voltage areas.
- If you are unsure about any area or task, stop immediately and ask your supervisor for guidance.
- Maintain safe distances from electrical equipment and never cross into exclusion zones without permission.
- Check pre-start briefs daily to know which zones are energised and what precautions to follow.
- Only work on or near energized equipment when instructed by a Permit Holder or Commissioning Supervisor.
- Never use water on electrical fires; only trained personnel should use Class C or CO_2 extinguishers.
- Report any damaged, malfunctioning, or unsafe equipment or barriers to your supervisor immediately.
- Stay alert and avoid distractions when near substations and always follow site safety rules without exception.

https://www.worksafe.qld.gov.au/safety-and-prevention/hazards/electricity/electrical-work-on-or-near-energised-electrical-equipment



Safe Work Australia – Working Near Live Electrical Installations



Case Example:

Inverter Fire Near Substation Area

An inverter that feeds power toward substation/BESS infrastructure caught fire at solar construction site. Crews isolated power and used foam to extinguish the blaze. The incident highlights how faults in high-energy electrical equipment can escalate quickly.

Key Lessons Learned:

- Stay out of restricted electrical areas unless trained and authorised.
- Report any signs of damage (burning smell, smoke, strange noises) immediately.
- If a fire starts, don’t try to fix it yourself, unless trained. Move to safety and alert supervisors.



Hazard Fact Sheet - Drilling & Piling Operations

What is the Hazard?

Drilling and piling involve the use of large drill rigs and heavy steel piles to install the foundations that support solar farm panel structures. These activities involve mobile plant, high-force equipment, and manual handling, with significant risks if controls are not followed.

Types of Injuries / Health Effects

- Crush injuries from plant movement or pile handling
- Struck-by injuries from falling or shifting piles
- Amputation or entanglement injuries from rotating drill components
- Sprains and strains from lifting and guiding piles
- Hearing damage from prolonged noise
- Slip/trip injuries on uneven ground

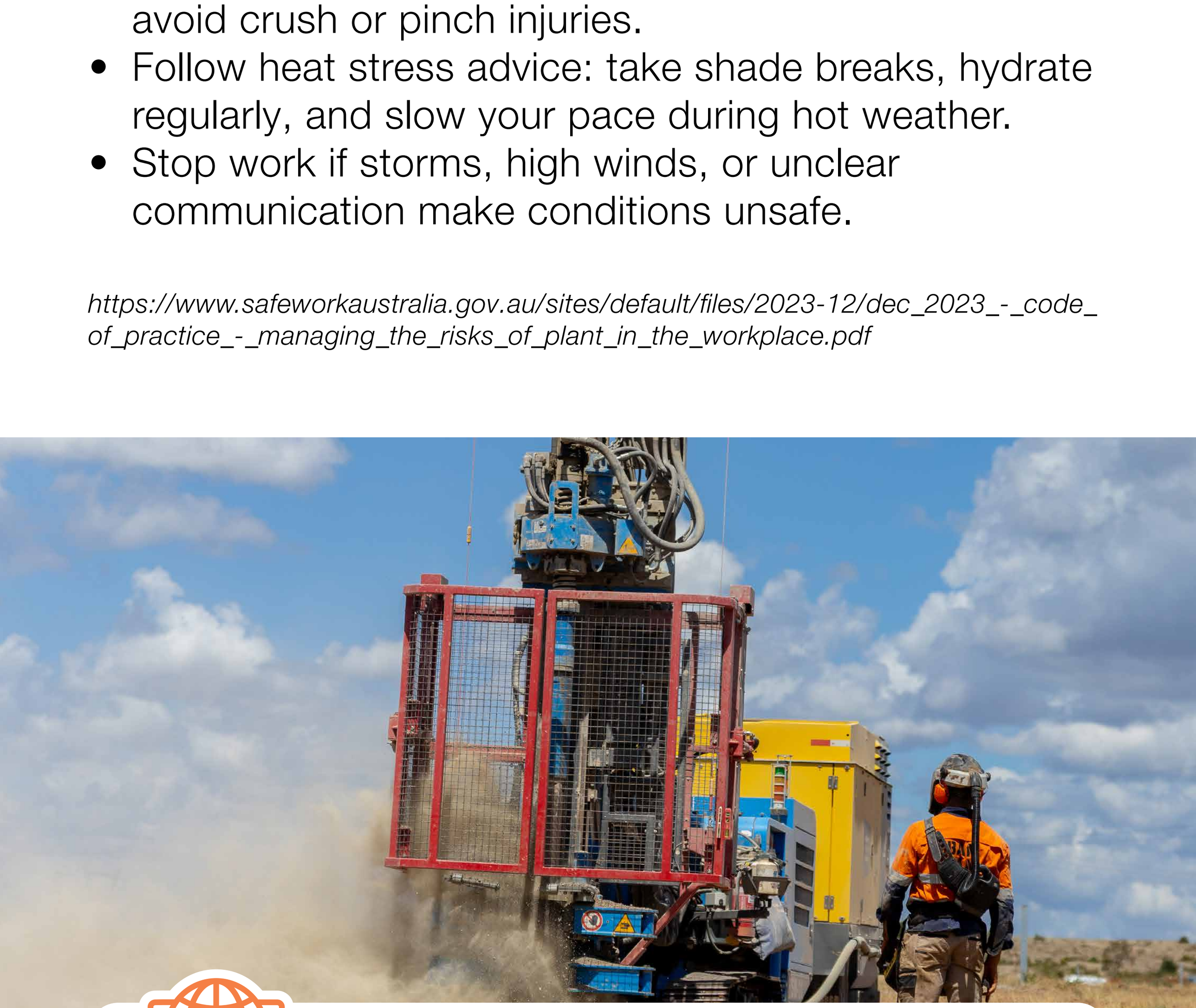
Causes / Scenarios

- Entering exclusion zones around the drill rig
- Handling long, heavy piles manually
- Unexpected ground conditions (rock, voids, soft soil)
- Poor communication with the operator
- Weather impacts (high heat, storms, wind gusts)
- Fatigue from repetitive physical work

Control Measures

- Stay clear of drill rig exclusion zones unless authorised and remain alert for moving equipment nearby.
- Always communicate with spotters and confirm hand signals or radio calls before moving.
- Use mechanical aids when available and ask for help with heavy or long piles to reduce injury risk.
- Coordinate team lifts with clear countdowns and ensure everyone has solid footing.
- Rotate physically demanding tasks and report any equipment faults before starting work to prevent accidents.
- Never stand between piles and moving machinery to avoid crush or pinch injuries.
- Follow heat stress advice: take shade breaks, hydrate regularly, and slow your pace during hot weather.
- Stop work if storms, high winds, or unclear communication make conditions unsafe.

https://www.safeworkaustralia.gov.au/sites/default/files/2023-12/dec_2023_-_code_of_practice_-_managing_the_risks_of_plant_in_the_workplace.pdf



Safe Work Australia – Managing the risks of plant in the workplace



Case Example:

Worker Crushed by Pile Driver

At a South Australian solar farm, a worker was fatally crushed after entering the operating area of a piling rig. Investigations found poor exclusion zones and unsafe work methods.

Key Lessons Learned:

- Never walk near a running piling machine, stay outside all barriers and marked zones.
- Always wait for the operator or spotter to confirm it’s safe to approach.
- If you’re unsure where to stand, ask. Piling rigs have blind spots and can move suddenly.



Hazard Fact Sheet – Overhead Powerlines

What is the Hazard?

Overhead powerlines carry high-voltage electricity which can cause severe injury or death if workers, tools, or equipment come too close or make contact. Electricity can arc (jump through the air), meaning you do not need to touch the powerline to be electrocuted. This hazard is critical when using cranes, EWPs, telehandlers, trucks, or handling long materials.

Types of Injuries / Health Effects

- Electrocution or electrical shock
- Severe burns and cardiac arrest
- Fatalities from direct or indirect contact
- Fire or plant damage if equipment touches a live line
- Secondary injuries from falls or panic reactions

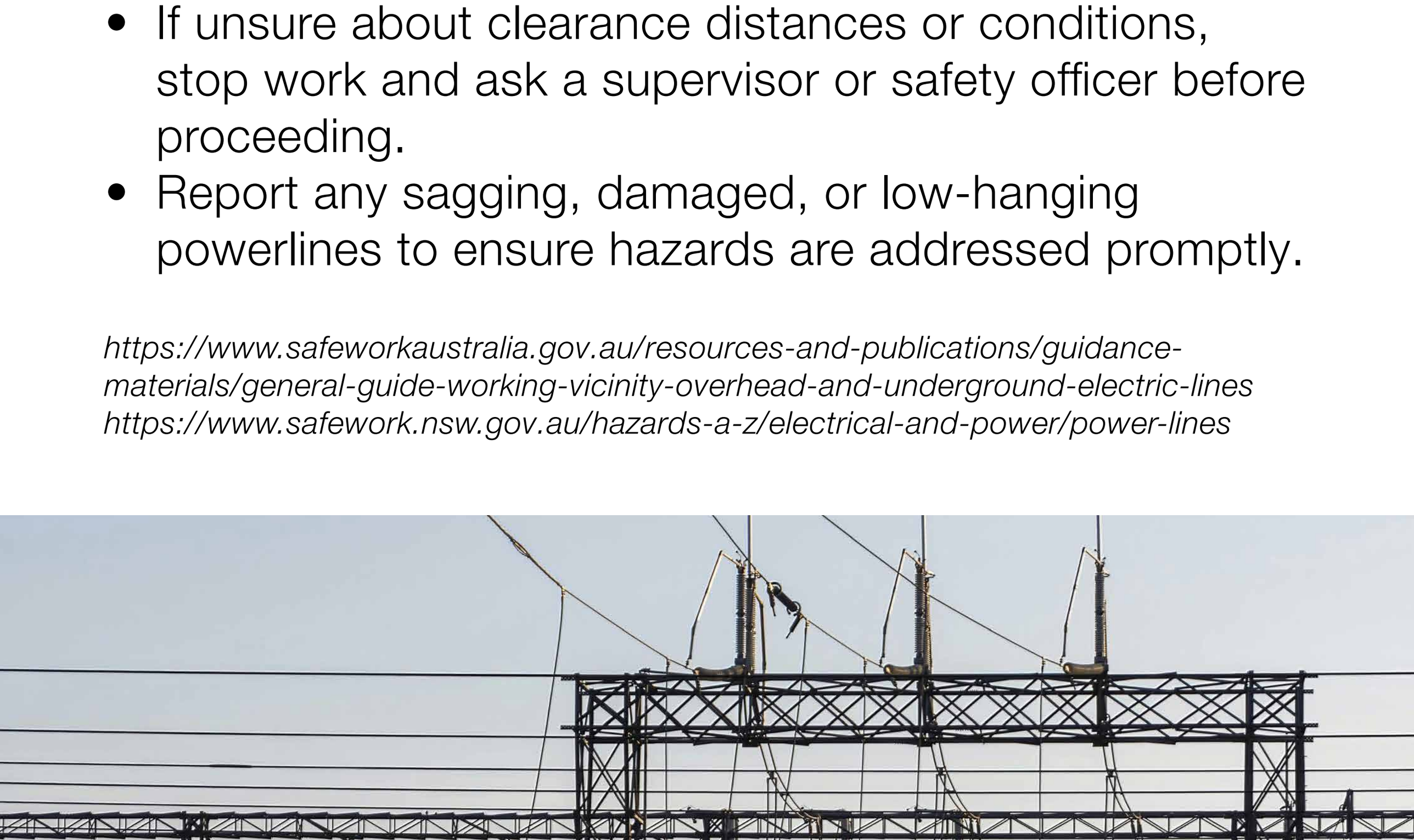
Causes / Scenarios

- Operating mobile plant too close to powerlines
- Lifting or carrying long or conductive materials (rails, piles, ladders)
- Poor visibility due to glare, dust, or weather conditions
- Spotter not used or distracted during high-risk lifts
- Incorrect estimation of height or clearance distances
- Stacking or storing materials underneath or near powerlines

Control Measures

- Always identify and keep clear of overhead powerlines and respect marked exclusion zones on site.
- Use spotters when operating cranes, EWPs, telehandlers, or trucks near powerlines, and maintain clear communication.
- Lower booms and attachments fully before moving equipment near powerlines to avoid accidental contact.
- Never store materials or park equipment under or near powerlines to prevent accidental energising or damage.
- Stop work immediately if visibility is poor (e.g., due to weather, glare) or if wind affects your control over equipment.
- If unsure about clearance distances or conditions, stop work and ask a supervisor or safety officer before proceeding.
- Report any sagging, damaged, or low-hanging powerlines to ensure hazards are addressed promptly.

https://www.safeworkaustralia.gov.au/resources-and-publications/guidance-materials/general-guide-working-vicinity-overhead-and-underground-electric-lines
https://www.safework.nsw.gov.au/hazards-a-z/electrical-and-power/power-lines



Safe Work Australia – General guide for working in the vicinity of overhead and underground electric lines



Case Example:

Partially Live Cables Near Overhead/Underground Line Tie Ins

Across multiple solar farms, workers found cables partially connected to live panels or power sources. These setups were often near areas where underground services or overhead lines interface with the farm, creating serious electrocution risks if touched or moved.

Key Lessons Learned:

- Always assume a cable is live unless told otherwise by an electrician.
- Never disconnect or reconnect cables yourself - even “small” ones can be dangerous.
- If you find a loose or half connected cable, keep your distance and report it.



Hazard Fact Sheet – Wind & Dust Hazards

What is the Hazard?

Wind and dust hazards occur when strong winds, dry conditions, or disturbed ground create airborne dust, reduced visibility, flying debris, and unstable working conditions. Wind can affect manual handling, lifting, plant operation, working at height, and general site movement. Dust can impact breathing, eye health, and visibility, increasing the risk of incidents.

Types of Injuries / Health Effects

- Eye injuries from airborne dust or debris
- Respiratory irritation or illness from dust inhalation
- Struck-by injuries from wind-blown materials or unsecured objects
- Slips, trips, and falls due to poor visibility
- Fatigue, heat stress, or dehydration in hot and windy conditions
- Loss of control of loads or tools during lifting or handling

Causes / Scenarios

- Strong wind gusts during manual handling of long or light materials (panels, tubing, insulation)
- Dust storms or dry soil being lifted by wind, reducing visibility across the site
- Unsecured items (ply, packaging, rags, tools) becoming airborne
- Crane, EWP, or telehandler operations continuing in unsafe wind speeds
- Cutting, grinding, or drilling disturbing soil and increasing dust
- Workers not using respiratory protection when required
- Wind gusts causing doors, gates, or mobile plant attachments to move unexpectedly

Control Measures

- Check weather forecasts and wind speeds daily and avoid performing dusty or high-wind tasks when conditions are severe or unsafe.
- Always wear safety glasses or goggles and a dust mask to protect your eyes and lungs from dust and flying debris.
- Secure all loose materials, tools, and rubbish around your workspace to prevent them being blown away or becoming hazards.
- Use water sprays or hoses to dampen dusty areas when available and avoid stirring up dust by limiting fast movement on bare soil.
- When handling lightweight or long materials like panels or tubing, work with a partner and be extra cautious of sudden gusts of wind.
- Seek shelter during dust storms or strong winds and resume work only once conditions improve and visibility is safe.
- Communicate regularly with coworkers about changing wind or dust conditions and watch out for each other’s safety.



Case Example:

Dust Storms Reducing Visibility and Air Quality

Solar Farms have reported that dust storms and heavy aerosol events can severely reduce visibility and coat surfaces with grime. While this mainly affects power output, similar events during construction make it harder to see hazards and can cause breathing or eye irritation for workers.

Key Lessons Learned:

- If visibility drops, slow down and pause work. You must be able to see hazards clearly.
- Wear eye protection and a dust mask when dust is blowing across site.
- Avoid working downwind of dust sources whenever possible.

https://www.safeworkaustralia.gov.au/safety-topic/hazards/working-outside/working-hazardous-weather

Safe Work Australia – Working in hazardous weather



Hazard Fact Sheet - Power Tools on Solar Construction Farms

What is the Hazard?

Power tools such as drills, grinders, impact drivers, saws, crimpers, and torque tools pose risks including cuts, amputations, eye injuries, electric shock, burns, vibration exposure, and struck-by hazards. On solar farms, these risks increase due to high-volume repetitive work, variable ground conditions, environmental exposure, and inexperienced workers.

Types of Injuries / Health Effects

- Lacerations, punctures, amputation, crushed fingers/ hands
- Eye injuries from flying metal, dust, or shards
- Electric shock or burns from damaged cords or improper use
- Hearing loss from prolonged noise exposure
- Musculoskeletal injuries from poor ergonomics and repetitive use
- Hand–arm vibration syndrome (HAVS) from extended use of vibrating tools
- Fatigue-related errors due to long shifts and harsh site conditions



Causes/Scenarios

- Using damaged, untested, or untagged tools
- Incorrect tool for the task
- Lack of guarding or guards removed
- Inexperienced workers using high-powered tools without training
- Improper lifting/handling of heavy battery-powered tools
- Loose clothing or gloves caught in rotating parts
- Fatigue leading to reduced concentration and judgment

Control Measures

- Before using any power tool (drill, grinder, impact driver, crimper, torque tool), ask a competent person to show you how to hold it, start/stop it, and what can go wrong.
- Before you start, look for missing guards, loose parts, damaged cords, cracked discs, or worn bits, and don’t use the tool if anything looks wrong.
- Make sure the tool, blade, bit, or disc is correct for the material and task (e.g. no cutting discs for grinding, no “near enough” sized bits or sockets).
- Wear safety glasses or a face shield, hearing protection, and suitable gloves when there is a risk of flying debris, sharp edges, or vibration.
- Position yourself upwind where possible, use on-tool extraction or water/dust control if provided, and keep others clear of your line of fire.
- Work from stable, non-slippery ground, keep two hands on the tool where designed, and avoid overreaching, twisting, or working above shoulder height for long periods.
- Keep cords out of water, mud and traffic routes, avoid trip hazards, and only use charged batteries and leads that are tagged and in good condition.
- Take regular breaks from high-vibration tools, swap tasks where possible, and report tingling, numbness, or loss of grip in your hands.
- Before changing blades, bits or discs, or clearing jams, disconnect power or remove the battery and wait for all moving parts to stop.
- Do not use power tools if you are very tired, unwell, affected by alcohol or drugs, or distracted; stop and reset if you feel your concentration slipping.



Case Example:

Repetitive Power Tool Use Leading to Strain and Fatigue

Guidance for Australian solar farm construction highlights that workers often use drills, impact drivers, and fastening tools repeatedly while bent over racking or reaching awkwardly. This can lead to muscle strain, fatigue, and vibration related discomfort, especially when rushing to meet deadlines.

Key Lessons Learned:

- Take breaks and switch tasks, when possible, repetitive tool use can cause strain.
- Use proper body position. Keep your back straight and avoid over reaching.
- If your hands start tingling or feel tired, pause and tell your supervisor.

https://www.safeworkaustralia.gov.au/sites/default/files/2023-12/dec_2023_-_code_of_practice_-_managing_the_risks_of_plant_in_the_workplace.pdf

Safe Work Australia – Managing the risks of plant in the workplace



Hazard Fact Sheet - Contact with Assets (Overhead & Underground Services)

What is the Hazard?

Contact with assets includes striking, damaging, or coming too close to overhead or underground services such as powerlines, electrical cables, water mains, gas lines, communications cables, and fibre optic infrastructure.

These assets may be live, pressurised, or critical to operations. Contact can result in serious injury, fatality, service disruption, fire, explosion, flooding, or major project delays.

Types of Injuries / Health Effects

- Electrocution or electric shock
- Severe burns from arc flash
- Explosion or fire-related injuries
- Drowning or engulfment from ruptured water mains
- Fatalities from contact with live services

Causes / Scenarios

- Excavating or drilling without confirmed service locations
- Operating plant too close to overhead powerlines
- Failure to follow Dial Before You Dig
- Inaccurate or outdated service drawings
- Not using a spotter when working near overhead lines
- Driving star pickets or piles into unconfirmed ground
- Assuming a service is isolated or de-energised without verification

Control Measures

- Always confirm underground services have been identified before digging, drilling, piling, or trenching.
- Follow Before You Dig Australia requirements and review current service plans.
- Use non-destructive digging (NDD) or potholing to positively identify underground assets before mechanical excavation.
- Maintain minimum approach distances from overhead powerlines as per site rules and legislation.
- Use spotters when operating plant near overhead services.
- Never assume a cable or line is de-energised; treat all services as live unless formally isolated and confirmed.
- Stop work immediately if an unknown service is uncovered and notify your supervisor.
- Ensure operators and workers are inducted on site-specific asset locations and exclusion zones.

https://www.safeworkaustralia.gov.au/doc/model-code-practice-excavation-work https://www.safeworkaustralia.gov.au/system/files/documents/1703/overhead-underground-electric-lines-general-guide.pdf https://www.byda.com.au/before-you-dig/best-practice-guides/

Safe Work Australia – Model Code of Practice: Excavation Work



Case Example:

Incorrect Cable Location Leads to Electric Shock and Project Delays

An excavator struck a live underground electrical cable during trenching works. The cable location was marked incorrectly, and mechanical excavation commenced without potholing to confirm depth. The operator received an electric shock, and the project experienced significant delays.

Key Lessons Learned:

- Always positively identify underground services before mechanical excavation.
- Do not rely solely on drawings or markings, confirm location and depth.
- If unsure about service location, stop work and escalate immediately.
- Ensure supervisors verify controls are in place before excavation begins.

7. Glossary

Purpose: This section defines common terms, acronyms, and site-specific language to ensure that workers, especially those new to construction, clearly understand the terminology used on solar farms.

Acclimatisation – The process of your body adjusting to hot or cold weather conditions. Important when starting work in regional or remote areas.

BESS (Battery Energy Storage System) – A large battery installation that stores power generated by the solar farm for later use.

Blind Spots – Areas around vehicles or machinery where the operator cannot see people or obstacles. Always stay visible and make eye contact with the operator.

Buddy System – Pairing new workers with experienced workers to help them learn site rules and stay safe.

CALD (Culturally and Linguistically Diverse) – Refers to workers from different language or cultural backgrounds who may need translated materials or visual aids.

Camp Living – Accommodation provided near remote sites. Usually includes private donga-styled rooms, with shared meal halls, and basic facilities.

Commissioning Zone – Area of the site where electrical systems are being tested or made live. Entry is restricted and requires a permit.

Controls – Actions or measures used to eliminate or reduce a hazard (e.g. barriers, training, PPE).

DIDO (Drive-In Drive-Out) – Work arrangement where workers drive to site at the start of their swing and home at the end.

EWP (Elevated Work Platform) – Equipment such as scissor lifts or boom lifts used for work at height.

Exclusion Zone – An area that people must not enter unless authorised. Used around mobile plant, live electrical work, or high-risk areas.

Fit for Work – Being physically, mentally, and emotionally capable of safely performing your job. Includes being well-rested, hydrated, and not under the influence of drugs or alcohol.

FIFO (Fly-In Fly-Out) – Work arrangement where workers fly to a regional or remote site for a set roster period ("swing") before returning home.

General Construction Induction Card – Mandatory construction induction card showing that you've completed general construction safety training.

Hazard – Anything that has the potential to cause harm (e.g. heat, electricity, manual handling, mobile plant).

Hot Works – Tasks involving open flames or sparks, such as welding, cutting, or grinding. A permit is required before starting.

Huck Blind Oversized Mechanically Locked Gun (BOM) – is a heavy-duty industrial tool used to install Huck BOM fasteners. Designed specifically to fasten, connect, or install mechanical parts, i.e solar panel to metal mounts

LVR/CPR (Low Voltage Rescue / Cardiopulmonary Resuscitation) – Mandatory training for electrical workers to perform safe rescues and provide first aid for electrical incidents.

Manual Handling (Hazardous Manual Tasks) – Any task involving lifting, pushing, pulling, or carrying objects that may cause strain or injury.

Mobile Plant – Machinery that moves around site, such as telehandlers, dozers, graders, or cranes.

Permit to Work – A formal, documented safety procedure used to authorise high-risk, non-routine tasks, ensuring hazards are controlled before work begins. E.G, hot works permit.

PPE (Personal Protective Equipment) – Safety gear used to protect workers, such as safety glasses, helmets, gloves, high-visibility clothing, and safety boots.

Pre-Start – Daily meeting before work begins to discuss tasks, hazards, weather, and safety messages.

Remote Site – A work location far from towns or major services, often requiring camp accommodation.

Rosters / Swings – Work schedule (e.g. 2 weeks on, 1 week off). Each period on site is called a “swing.”

Swagging – Involves a hydraulic tool that permanently compresses a fitting onto a wire cable for a secure bond.

Site Induction – The process of introducing new workers to site rules, emergency procedures, and hazards. Must be completed before starting work.

Spotter – A person who helps guide mobile plant operators to prevent collisions and keep pedestrians safe.

Substation – A key part of the solar farm that converts power to the correct voltage for the electricity grid.

SWMS (Safe Work Method Statement) – A document that identifies specific high-risk activities, the hazards and risks arising from them, and the precise control measures to be used to perform the work safely.

Telehandler – A type of mobile plant used to lift and move heavy materials with a boom or fork attachment.

Toolbox Talk – Short, informal safety meeting held regularly to discuss issues or changes in the work area.

VOC (Verification of Competency) – Assessment confirming a worker's ability to safely operate specific machinery or perform tasks.

Wildlife Management – Procedures to protect local animals and keep workers safe from snakes, insects, and other wildlife.

8. Appendix

8.1 Onboarding Checklist for Large-Scale Solar Farm Sites

New starters on large-scale solar construction farms often face remote conditions, long rosters, and site specific safety rules. This expanded checklist covers all key areas to help you prepare fully, reduce stress, and arrive ready. Tick as you confirm each item with your employer.

Before Accepting a Role

Check if job is a good fit for your health, lifestyle, and skills.

- [ ] Am I physically fit for the work (lifting heavy gear, standing long hours, hot/dusty conditions)?
- [ ] Have I disclosed any medical conditions I have that may impact my ability to carry out my duties safely?
- [ ] What are my transport arrangements to get to the project site, e.g fly-in/fly-out or drive-in/drive-out (FIFO or DIDO)?
- [ ] Where is the site located, and how do I get there?
- [ ] What type of site is it? Town based, regional (daily drive home) or remote (camp living)?
- [ ] What are the working hours and roster (e.g., 2:1 weeks on/off, 10-12 hr shifts, Mon-Fri)?
- [ ] What weather or environmental conditions to prepare for (e.g., extreme heat >40°C, dust storms, flooding)?
- [ ] What is the expected project duration and job security?
- [ ] What is the pay rate, overtime, and any penalties for remote work?

Before Starting on Site

Living Arrangements / Wellbeing

- [ ] Is accommodation provided (e.g., basic dongas—portable cabins), or self-arrange?
- [ ] Are rooms shared or private? Air-conditioned?
- [ ] What facilities are available (meals provided, laundry, gym, showers, phone/internet reception)?
- [ ] What travel to/from site looks like? (self-drive, company bus, flights - who books/pays)
- [ ] How often can I leave site (R&R breaks)?
- [ ] Any dietary requirements to notify (e.g., vegetarian, halal, allergies)?
- [ ] Any medical issues or needs (e.g., medications, asthma, mobility aids)?
- [ ] What welfare support is there (counselling, mental health checks)?

Workplace Expectations

- [ ] What PPE/tools do I bring (steel-cap boots, high-vis, gloves)?
- [ ] What PPE/tools are supplied (harnesses, helmets, power tools)?
- [ ] What are the site safety and behaviour standards (drug/alcohol tests, no smoking zones)?
- [ ] Any pre-start requirements (induction training, medical fitness test, General Construction Induction Card)?
- [ ] Who is my direct supervisor and emergency contact on site?

What is the site induction process (online/in-person, how long)?

Paperwork & Compliance

Get these sorted early to avoid delays.

- [ ] Do I need specific tickets/qualifications (e.g., EWP, forklift, confined spaces, solar-specific training)?
- [ ] What vaccinations or health screenings are required (e.g., Q-Fever, tetanus)?
- [ ] Who handles payroll setup, superannuation, and tax file number?

Family & Emergency Planning

Plan for life's realities on remote rosters.

- [ ] How will I stay in touch with family (WiFi quality, phone blackspots)?
- [ ] What is the emergency evacuation plan (helicopter, bushfire response)?
- [ ] Who do I nominate as my emergency contact?

First Day & Ongoing

Know what happens on arrival and beyond.

- [ ] What to pack beyond PPE (personal meds, toiletries, insect repellent)?
- [ ] What is the daily routine (musters, toolbox talks, meal times)?
- [ ] How do I report hazards or near-misses?
- [ ] What are the fatigue management rules (max hours, rest breaks)?
- [ ] Who to contact for issues (HR, safety officer, union rep)?
- [ ] When is the first performance review or training refresh?

Tip: Print two copies - one for you, one for your employer. Email completed checklist to your onboarding manager.

Questions? Call your job contact.