

Electrical FOCUS

Issue 7 | October 2022

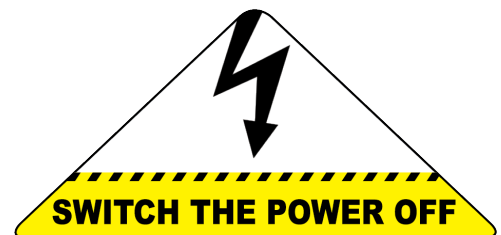
Switch the power off before entering the roof space

Recent tragic deaths and near misses have prompted a reminder from Building and Energy to the industry to always switch off the mains power before entering a roof space.

This follows five fatal electric shocks since 2011 in roof spaces in Perth and the South West, as well as several serious injuries from electrical hazards.

The Director of Energy Safety wrote to Western Australian homeowners informing them about the requirements to turn the power off before anyone enters the roof space. In addition, Building and Energy is distributing free safety stickers to be placed on manholes and switchboards as a reminder to turn off the main switch at the property's switchboard or meter box before entering the roof space.

There could be exposed live electrical conductors or wiring, damaged or deteriorated cables, non-compliant past electrical work and many other dangers. For everyone's safety, always turn off the power before anyone enters the roof space.



Under the Work Health and Safety Regulations



2022, it is mandatory for the mains power to be switched off before any worker enters the roof space of a residential property or related buildings such as a shed or garage. The law applies to electricians and all other trades including air-conditioning, solar and security installers, gas fitters, plumbers, insulators, carpenters and pest controllers.

The new safety stickers for ceiling access points and switchboards will remind everyone of this important step.

The free stickers can be requested by emailing EGPGeneralAdmin@dmirs.wa.gov.au
More information is available on the [Building and Energy website](#).

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Issue no. 7 | October 2022

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Most green pillars are not cable distribution cabinets

It is not permitted to install switches, circuit breakers, RCDs or other devices in ground-mounted green pillars forming part of an electrical installation if they are open beneath.

Such pillars are not 'cable distribution cabinets', which must comply with AS/NZS 61439.5:2016 *Low-voltage switchgear and controlgear assemblies, Part 5: Assemblies for power distribution in public networks*.

Note: such cabinets are termed Public Electricity Network Distribution Assembly (PENDA) in this Standard.

Clause 2.10.1 of AS/NZS 3000:2018 (Wiring Rules) provides:

A switchboard or switchboards shall be provided in an electrical installation for the enclosure of switchgear and protective devices.

Exceptions:

1. This requirement need not apply to switchgear or protective devices installed in a ground-mounted cable distribution cabinet in accordance with AS/NZS 61439.5, that protect small sub-mains teed off larger sub-mains forming an underground reticulated wiring system and to which unskilled persons do not require access.

Green pillars, if open to the ground beneath, do not qualify as such cabinets and are not covered by the above exception. If open beneath, any devices within are exposed to ingress of moisture, insects and vermin which could compromise their reliability.

Ground-mounted cable distribution cabinets must comply with the above Standard and be selected for their suitability for the specific role and location involved.

Mounting Solar Panels

Mounting solar panels on frames is not electrical work.

However, due precautions have to be undertaken to ensure the mounting and fixing are done appropriately and in accordance with manufacturer's instructions.

It may be performed by trade assistants, electrical apprentices or other personnel as long as they have received appropriate training about the necessary precautions needed and are competent to undertake the task.

The supervising electrician and electrical contractor are responsible to ensure the mechanical fixing is done properly and mounting methods forming part of the electrical bonding system have been correctly installed.













All cabling, connections, checking and testing, and installing any components operating at low voltage, must be performed by licensed electricians.

Licensed electrical contractors are responsible for ensuring solar PV installations comply with applicable regulations, including the Electricity (Licensing) Regulations 1991, and are safe, as declared when submitting their Notices of Completion for completed installations.

They must verify the earthing and bonding connections made as part of fixing solar panels in place comply with applicable Standards, including the Wiring Rules.



Low Voltage Solar PV categories - licensed and non-licensed

Task	Electrical licence required	No electrical licence required*
Install mounting rails on roof		
Install ground-mounted solar frame		
Vegetation control in solar farm		
Civil and concrete work in a solar farm		
Mounting/fixing in place of PV modules (panels)		
Earthing and bonding		
Wiring connections (AC and DC) including inter-module connectors and terminations in combiner boxes and at inverters		
Fixing cables in place including DC cables under the array		
Assembling a battery rack/frame		
Installing batteries		
Battery connections including inter-cell straps		
Mounting of electrical enclosures, isolators and inverters		

* Appropriate training must have been received about the necessary precautions and they must be competent to undertake the task.

AS/NZS 3000:2018 Clause 2.6.3.2.3.3(d)

Building and Energy has become aware of some confusion among electrical installation designers, electrical contractors and their employed electricians about how to apply Wiring Rules Clause 2.6.3.2.3.3(d) (the Clause).

The Clause requires additional protection by RCDs for final sub-circuits up to 32A capacity supplying direct-connected electrical equipment in non-residential installations that “represents an increased risk of electric shock”.

The term ‘electrical equipment’ includes both the supply wiring and the item of equipment itself. The final sub-circuit wiring to equipment may be exposed to various dangers, especially in some industrial settings.

The Clause refers to the fundamental requirement to protect against risk factors arising from external influences and the electrical installation circumstances and processes involved. The external influence risks to be considered are listed in Wiring Rules Clause 1.5.14. The list is not exhaustive and each installation’s circumstances must be assessed for all relevant risk factors.

While not specifically stated, the risk of fire caused by electrical discharge must also be considered.

The Clause wording requires a judgement to be made by installation designers, licensed electrical contractors and Inspectors about the need for RCDs to protect circuits and their direct-wired equipment. Due regard must be paid to the specific circumstances of the installation and the risks mentioned above.

For residential installations, all final sub-circuits supplying direct-connected equipment must be RCD protected. This includes electrical water heaters, cooking appliances and any other equipment items with conductive surfaces that occupants may contact.

Employees, customers and visitors may also come into contact with such equipment in commercial and industrial settings. Compared with residential situations, such contacts are likely to be more frequent in non-residential workplaces, where more persons are present, compared with residential installations. Employees may be required to come into frequent hand contact with production-line equipment they use or operate.

For these reasons, and to ensure fundamental electrical safety, RCDs should be fitted in the relevant switchboard to all final sub-circuits supplying direct-wired equipment in non-residential installations that employees or visitors can or must touch in the course of their visit or work.

If an electrical contractor decides not to install RCDs, an Inspector may request to see documented reasons for the decision, including the risk assessment carried out. AS/NZS 3000: 2018, Clause 2.6.3.2.3.3(d) mentions exceptions which contractors may cite where relevant.

Inspectors would expect to see separations, insulation levels, mechanical protection and correct earthing complying with all relevant standards in such cases. Building and Energy recommends this document is attached to the Notice of Completion for the installing work.

Changes to apprentice electrician licensing requirements

For apprentice electricians

Under the Electricity (Licensing) Regulations 1991 it is an offence to carry out electrical work unless you hold an appropriate licence or permit or are authorised to carry out that work in an exempt capacity.

For apprentice electricians this has historically meant being unable to engage in the practical aspects of employment until the Electrical Licensing Board issues an Electrician's Training Licence.

This arrangement has recently changed. In March 2022, the Electricity (Licensing) Regulations 1991 were amended to establish an exemption for apprentice electricians carrying out electrical work. This exemption provides that an apprentice electrician, working under a relevant training contract, carries out electrical work in an exempt capacity if:

1. that work is being supervised by a person who holds an Electrician's Licence that authorises the supervisor to carry out that work by themselves without supervision;
2. the Electrical Licensing Board has not issued an Electrician's Training Licence to the apprentice electrician;
3. the Electrical Licensing Board has not notified the apprentice electrician that their application for an Electrician's Training Licence has been refused; and
4. less than 60 days has passed since the relevant training contract was registered under the s.60F of the Vocational Education and Training Act 1996.

While holding an Electrician's Training Licence is no longer needed to start working, it will ultimately be needed to continue working as this exemption lasts for a maximum of 59 days from the date of a training contract being registered. Apprentice electricians should not delay in applying for an Electrician's Training Licence. For application forms and information relating to Electrician's Training Licences please visit <https://www.commerce.wa.gov.au/building-and-energy/electrical-licensing-forms> or contact DMIRS Licensing on 08 6251 2000 or energylicensing@dmirs.wa.gov.au.

For employers and supervisors of apprentice and trainee electricians

Whether an apprentice electrician is carrying out electrical work in an exempt capacity or under an Electrician's Training Licence, your obligations are the same. For details of these obligations, see r.50 and r.50AA of the Electricity (Licensing) Regulations 1991.

Further, under r.53(2) of the Electricity (Licensing) Regulations 1991 it is an offence to "employ, engage or instruct a person who is not licensed under these regulations to carry out any electrical work in relation to which a licence is required under these regulations". In the context of an apprentice electrician working under the new exempt capacity (outlined above), it is important for employers and supervisors to know precisely how long that exemption may be relied upon for each apprentice to avoid inadvertently committing an offence.

Submersible Pumps

Many private household watering bores need submersible pumps. New electrical safety requirements for importing, manufacturing and selling submersible pumps came into effect in December 2021. The new requirements apply specifically to submersible pumps sold online or over the counter to the general public.

Several recent electrical fatalities and injuries involving submersible pumps have triggered the reclassification of them to the higher safety category of Level 3 electrical equipment under the Electrical Equipment Safety System (EESS).

Submersible pumps must be verified independently by an accredited certifier and have a valid Certificate of Conformity to obtain a Regulatory Compliance Mark (RCM).

The importer or manufacturer must register themselves and the certificate with the EESS as the Responsible Supplier. This certification ensures the pumps have been proven independently in a test laboratory to meet Australian safety standards.

Both the power plug and the supply cord of the submersible pump already have a long-standing electrical safety requirement to be independently marked and referenced with their own Certificate of Conformity before the pump can be sold. Cords must not have joins and should have legible markings to help identify the manufacturer.

The increased regulatory requirements mean retailers and wholesalers of submersible pumps must ensure they buy from a registered responsible supplier.

They will also need to look for the RCM, and check the pump model's registration at <https://www.eess.gov.au>.



RCM mark

Licensed electrical contractors need to make sure that any submersible pump they purchase or are owner-supplied for installation complies with the certification requirement.

Arc flash safety video

Worksafe Queensland has produced a video highlighting the danger of arc flash and working live.

You can view the video on [Worksafe Queensland's website](#).

In Western Australia, the Electricity (Licensing) Amendment Regulations (No.2) published in November 2017, prevents electrical work being performed on or near exposed energised parts of an electrical installation that can be de-energised.

More information can be found on [Building and Energy's website](#)



Electricity Generator Switchboards - Compliance with AS/NZS 61439

Electricity generating sets must comply with AS/NZS 3010:2017 when used in any of the following situations (Clause 1.1):

- Normal supply source for electrical installations
- Alternative supply source for electrical installations
- Electrical supply source for the connection of electrical appliances or portable tools
- Supply sources that operate in parallel with the normal supply in the electrical installation

Compliance is also required with AS/NZS 3000:2018 (Wiring Rules) which is referenced in AS/NZS 3010. Wiring Rules Clause 2.10.3.2 requires switchboards rated at 125A or greater or exposed to fault currents of 10kA or greater to comply with AS/NZS 61439 or, for the time being, AS/NZS 3439. Such compliance must be verified by type testing, comparison with a reference design or assessment by calculation, as summarised in Annex D of AS/NZS 61439.

Integral switchboards forming part of a generating set fall within the definition of a switchboard and therefore must comply with one of the above-mentioned standards if rated as stated above.

Bespoke one-off generator sets can be verified by assessment, either by engaging a suitably qualified power engineer or by an employed engineer if they have appropriate qualifications and experience.

When generators are installed, electrical Inspectors, when conducting inspections, will expect to see appropriate written documentation

verifying compliance and may require a copy of such documentation.

Clause 2.10.3.2 provides for alternative verification means for switchboards rated at less than the above currents and fault level.

Changes to the Small-scale Renewable Energy Scheme came into effect on 1 April 2022

As of 1 April 2022, new legal requirements came into effect applying to all solar PV installers and designers, agents, retailers and manufacturers and importers participating in the Small-scale Renewable Energy Scheme (SRES).

To assist solar businesses to comply with the new obligations, the Clean Energy Regulator (CER) has updated the information on its website and created new sample forms and guidelines. [Short videos](#), [webinar recordings with downloadable presentation slides](#), and a [questions and answers document](#) are available to support your compliance with the new requirements.

It is your responsibility to understand and comply with the changes. The CER encourages you to contact them as early as possible if you have any questions about your new obligations under the SRES.

Changes for agents

Agents are now required to obtain an updated version of the written statement from installers and new written statements from designers and retailers to claim small-scale technology certificates (STCs). There are also new requirements to collect inverter serial number

data. The CER has updated its website with new sample forms and guidance documents to provide you with the details of the new requirements:

- Information on new document requirements
- Sample STC Assignment form and compulsory written statements
- REC Registry bulk upload specifications
- Small generation units – collecting mandatory information to create small-scale technology certificates

Changes for solar retailers

Solar retailers are now required to complete a written statement relating to any solar PV system they procure, sell and install which will be used to claim STCs. Solar retailers will need to provide this statement to their agent. To assist solar retailers with the new requirements, CER has developed web pages specifically for retailers as well as a sample statement:

- Information on new requirements for solar retailers
- Sample solar retailer compulsory written statement

Changes for installers and designers

There are now new and updated obligations for accredited installers and designers. The installer written statement has been updated and a new statement is now required from system designers. To assist installer and designers CER has updated the information on our website and developed sample forms:

- Information on new requirements for installers and designers
- Sample installer and designer written statement

Changes for solar PV component manufacturers and importers

Australian [manufacturers and importers of solar panels and inverters](#) with products on the Clean Energy Council's (CEC) approved PV module and approved inverter lists have new obligations under the SRES.

Inverter serial numbers

Inverter manufacturers or importers now need to provide inverter serial numbers to the CER's inverter serial number ledger for all inverters eligible for STCs (and listed on the CEC's approved inverter list).

The CER has updated its website information for [manufacturers and installers](#) and created guidance documents to provide you with the details on how to register and upload serial number data to the inverter serial number ledger:

- Inverter serial number ledger guidance
- Ledger template - adding new serial numbers
- Ledger template – updating serial number status

Solar panel serial numbers

Solar panel manufacturers or importers must continue to provide solar panel serial numbers to the CER's solar panel serial number ledger for all solar panels eligible for STCs (and listed on the CEC's approved inverter list).

For solar panel manufacturers or importers working with a verification service provider in the Solar Panel Validation (SPV) Initiative, they will continue to upload your solar panel serial number data on your behalf.

Solar panel manufacturers or importers not part of the SPV Initiative will still need to upload serial numbers to the CER's solar panel ledger for all solar panels you have listed as eligible for STCs. However, there will now no longer be any notices from the CEC to provide data.

New enforcement powers for Clean Energy Regulator from 1 April 2022

The CER is now able to declare non-compliant industry participants ineligible to participate in the SRES. Most in the solar industry do the right thing, but for those who don't, the CER has additional powers to address their non-compliant behaviour. This will level the playing field and ensure continued integrity in the scheme, maintain the integrity of the rooftop solar PV sector, and benefit participants doing the right thing.

For more information

Please [contact the Clean Energy Regulator](#) if you have any questions about what you need to do to meet your new obligations.

Building and Energy's industry education initiative

This year, Building and Energy has attended and presented at 21 industry association nights around Western Australia.

Senior Electrical Inspector, Jamie Hughes-Owen presented at these events and discussed:

- Current Building and Energy campaigns and reporting electric shocks.
- Industry statistics – defects, electrical accidents and prosecutions.
- Regulation matters – apprentice supervision, notifiable work, importance of checking and testing.

- Mandated standards – obligations of electricians/electrical contractors to adhere to standards called up in schedule 2 of the Electricity (Licensing) Regulations 1991.
- Workplace safety.

Western Power Electrical Inspectors also presented at some of these events.



Master Electricians event in Busselton



NECA's event in Ascot

Restoring an electrician's licence and changes to the online service

DMIRS Licensing has changed the process for restoring an Electrician's Licence.

To restore a licence expired up to two years you can use our [online restoration service](#).

For a licence expired for more than two years you are unable to use the online restoration service. The Electrical Licensing Board requires that a person successfully completes additional training prior to applying for a restoration.

To find out about the additional training relevant to your Electrician's Licence you can speak to Licensing Services on 6251 2000 or visit our [website](#).

Electrician fined for poor supervision at hazardous Nedlands house

A Nedlands family was lucky to avoid serious injury after an electrical work error caused the metal pipes at their home to become energised, with one person receiving an electric shock from a shower tap.

The November 2019 incident led Building and Energy to prosecute a Heathridge electrician for not adequately supervising the electrical work, which was carried out by an apprentice under his supervision.

On 1 April 2022 at Perth Magistrates Court, the electrician was fined \$5,000 plus costs of \$1,804 after pleading guilty to breaching WA's Electrical Licensing Regulations.

The court was told that the supervising electrician and the apprentice attended the Nedlands property to replace the main switchboard and install new lights and a fan.

That evening, an occupant at the house received an electric shock from the shower tap. Fortunately there were no serious injuries.

A Western Power Inspector attended the premises and on inspecting the switchboard:

- measured 62 volts between the shower taps and an independent earth;
- found the main switchboard did not have a connection to the supply neutral conductor; and
- identified that the main neutral conductor was unterminated at the new switchboard.

Building and Energy's investigation determined that the apprentice failed to connect a main neutral to the switchboard, which is essential under WA's multiple earthed neutral system. The supervising electrician failed to effectively supervise the electrical work the apprentice completed by not conducting the appropriate checks and tests to ensure that the work is safe and complied with the Electricity (Licensing) Regulations 1991.

Without a neutral connection, circuit protection mechanisms do not work and earthed metal objects are exposed to hazardous voltage rises that could cause lethal electric shocks or fires.

The Magistrate emphasised the seriousness of any electrical offence, adding that "the buck stops" with the supervisor to ensure work is carried out correctly.

It is essential that apprentices are properly supervised so the public can be confident in the safety and quality of the electrical work.

This is another case that emphasises the need to complete mandatory checks and tests. If the electrician had completed the required checking and testing, the error would have been picked up and corrected.

Building and Energy's publication [Safe working guidelines for electrical workers](#) provides advice on providing effective supervision for electrical workers with varying competencies.

Western Power fined for not providing adequate instructions

In two recent cases, Western Power has been fined a combined \$75,000 plus costs of \$2,990 after they failed to provide adequate instructions to contractors working for them, resulting in unsafe electrical work.

Western Australia's Electricity (Network Safety) Regulations 2015 (Regulations) require network operators to ensure its network is designed, constructed, operated and maintained to safeguard consumers. An essential part of meeting this is ensuring, so far as is reasonably practicable that each prescribed activity on the network is carried out safely. Failure to instruct, train and supervise persons that the network operator is responsible for (including contractors and their employees) is a breach of the Regulations.

In both cases, Western Power pleaded guilty to failing to ensure, so far as is reasonably practicable, that maintenance work on its network was carried out safely, as required by the Regulations.

In the first case, Western Power engaged an electrical contracting company to carry out

maintenance and repairs on its streetlight electrical circuits in Kingsley in May 2019.

The required maintenance was intended to be carried out on an underground streetlight wiring system installed in approximately 1978. The streetlight wiring was compliant with the relevant standards in place at the time it was installed. However, it differs to the streetlight wiring system used in modern underground streetlight systems.

The electricians wrongly disconnected what they thought was a streetlight neutral cable, which in fact was a network neutral conductor providing earthing protection to four nearby houses. The disconnection caused earthed metallic objects at the properties, such as taps and appliance casings, to become live with up to 230 volts of electricity.

A man at one of the homes received an electric shock when he touched a shower tap, but fortunately he did not require medical treatment. No other injuries or property damage were reported.

There was a deficiency in the instructions provided to the contractor. In court, Western Power acknowledged it was reasonably practicable for it to have taken further steps to ensure the work was safe by providing more specific instructions about network neutral connections. This would be addressed by updating its Electrical System Safety Rules.

In the second case, a Perth electrician was contracted by Western Power to replace a three-phase, kilowatt-hour meter at a Lancelin home in October 2019.

The electrician failed to connect the load neutral conductor, which caused voltage rises and damage to lights and appliances at the property.

The meter replacement testing instructions provided by Western Power to its workers and contractors did not include a final neutral integrity test, which is outlined in the Australian Standards and would have detected the fault.

During sentencing, the Magistrate criticised Western Power on its slow progress to address issues relating to the incident. Her Honour noted Western Power's cooperation, early guilty plea and compensation for the property damage, but added that the network operator should expedite a review of its procedures given the risks to community safety.

Network operators must provide their workers and contractors with comprehensive instructions. A high volume of meter replacements continue across the network, so it is imperative that electricians working at the frontline are equipped with the right information to ensure the work is completed to a safe standard.

Testing regimes must reflect the Australian Standards and include all mandatory testing to enable detection of dangerous errors and other issues.

These two cases should remind all network operators of their responsibilities to reasonably ensure work is carried out safely, including the provision of comprehensive training and information for workers and contractors.

Is your licence number clearly displayed?

After a recent court case where a Pilbara tradesman was prosecuted for falsely presenting himself as a licensed electrical contractor and providing invalid safety certificates, Building and Energy are urging consumers to verify that businesses they engage to carry out electrical installing work hold a valid electrical contractor's licence. The media release can be viewed on our [website](#).

We are asking consumers to use our [online licensing search](#) to check the company holds a valid licence.

To assist your business and consumers, please ensure that your electrical contractor's number is clearly displayed on all advertising material promoting your business. This includes, but is not limited to:

- stationery – business cards, letterhead, quotes and invoices;
- signage on business premises and vehicles;
- online advertisements - Local Trades, Yellow Pages, Facebook, Instagram, and Twitter, etc
- print media – pamphlets, business and community directories, newspapers; and
- television and radio (EC number spoken).

Displaying your electrical contractor's licence number is a requirement under Regulation 45(1) of the Electricity (Licensing) Regulations 1991, that stipulates:

The holder of a licence shall ensure that his or her licence documents and certificate of registration is conspicuously displayed at his or her principal place of business and that the number of his or her licence is conspicuously displayed in any advertisement advertising his or her electrical contracting business.

As for the definition of 'conspicuously displayed', the font size is dependent on the size of the advertisement but as a guideline, the licence number should not be less than 50% of the largest font size used in the advertisement.

Checking and testing is essential

Building and Energy are seeing far too many cases where the mandatory checking and testing is not being completed, and unsafe electrical installations are putting consumers and tradespeople at risk. Two recent prosecutions again highlight the importance of mandatory electrical checking and testing.

In the first case, an Electrical Contractor was engaged to supply and install a replacement consumer power pole at a property. An electrical worker, employed by the contractor carried out the work, which included installing a new pre-built, pole-mounted metal switchboard enclosure, a load center with a main switch, protective devices, an external weatherproof socket outlet, a light and a new overhead mains cable.

The Electrical Contractor submitted a notice of completion to Western Power certifying that the electrical installing work had been checked, tested and found to comply with the Regulations.

A Western Power inspection revealed that the metal switchboard enclosure had not been bonded to earth and that the socket outlet on the side of the metal enclosure was wired incorrectly, with the earth and neutral conductors transposed.

Both defects would have been detected if mandatory checks and tests had been carried out.

In the second case, an electrician attended a home to install the electrical components of a newly fitted window shutter. The work

included connecting the wall switch to a flexible power cord and a three-pin “male” plug top so the shutter controls could link to a back-up uninterruptable power supply (UPS).

When another electrician attended the house a week later for an unrelated issue, he received an electric shock after touching the metal pins on the shutter power cord plug top.

Rather than connecting the cord just to the shutter controls, the electrician had incorrectly also wired it into a nearby socket outlet. This meant the plug top pins were continuously live with 240 volts of electricity while mains power was supplied to the house.

All prescribed electrical work is required to be tested, regardless of whether it's:

- following repairs to an appliance;
- replacements or repairs of fittings;
- additions, alterations, rewires, new and extended circuits; or
- mains work, Photovoltaic, medical, hazardous, mining, etc.

The type of tests required depends on the type of work carried out.

AS/NZS 3000:2018, Wiring Rules and AS/NZS 3017:2017 Electrical Installations – verification guidelines outline the testing standards and are essential information for all electricians.

Electrical contractors are urged to develop adequate management systems and work practices to ensure the work of their employees is safe, meets the required Standards and has been adequately verified and tested before the Notice of Completion is submitted. The Notice is a legal document stating that an installation has been verified and tested. When it has not, this is a serious breach of the law.

Taking the time to carry out the correct testing procedures can prevent costly errors. As an electrical contractor, it is your responsibility to ensure your electricians have all the required testing equipment, are well versed with checking and testing procedures, and carry out all the tests as prescribed by AS/NZS 3000:2018.

Building and Energy also recommends that electrical contractors regularly review their employees' test-sheets to confirm that proper checking and testing is being carried out and that work is completed to the relevant standard. Contractors should conduct regular site inspections to gauge their employees' standard of work and work practices.

Stage 1 of the new security of payment laws rolled out

On 1 August 2022, the Building and Construction (Security of Payment) Act 2021 (the Act) came into effect, marking the first stage of landmark reforms to ensure subcontractors and suppliers receive timely payments for their work.

The first stage of the Act expands contractors' rights to claim regular payments to avoid large outstanding invoices. It also delivers more structure and transparency to payments and an effective dispute resolution pathway to receive money owed.

The new Act applies to construction contracts entered into on or after 1 August 2022. The Construction Contracts (Former Provisions) Act 2004 will continue to apply to construction contracts entered into before this date.

The State Government has a three-year Action Plan for implementing the Act. Stage 2 will start on 1 February 2023 and Stage 3 on 1 February 2024.

To help businesses understand the new laws that came into effect on 1 August 2022, Building and Energy have published a suite of educational materials on [our website](#).

Building and Energy has also collaborated with law firm, Jackson McDonald, to create a pre-recorded [online seminar](#) for industry participants on the new laws and how they operate. The seminar explains all the key provisions of the security of payment laws.



A Security of Payment Roadshow is being held in various regional locations around WA from September to November 2022. The roadshow will include representatives from Building and Energy and will consist of an overview of the new payment protection laws and how to navigate the details of them.

If you work in the building and construction industry or contract to those in the building and construction industry, you are encouraged to attend.

The sessions are free, however registration is essential. To secure your place, [visit our website](#) and click on the location you want to attend. Registration is completed online using Eventbrite.

Building and Energy will be holding Security of Payment information sessions in the metro area at a later date. Details are being finalised and information will be available in due course.

Product Safety Recall - LG solar home energy batteries

LG Energy Solution Australia and SolaX Power Aust Pty Ltd are recalling batteries installed in LG, SolaX or Opal solar energy storage systems.

At least 450 recalled batteries may be installed at WA homes. These batteries may have been supplied individually as replacement batteries or in other branded systems by other distributors.

The hazard

The batteries can overheat and cause a fire, serious injuries or severe property damage. Since October 2019 there have been nine fires in Australia and five in the USA resulting in property damage and injuries to two people.

Check if batteries you have installed are affected

For LG solar battery systems:

1. To find out if a battery is affected by this recall visit lgessbattery.com/au and follow the instructions to check the battery's serial number.
2. If you have installed an affected battery, or are in doubt, immediately contact LG Energy Solution Australia on 1300 677 273 or email productau@lgensol.com to arrange an inspection. All affected batteries will be replaced at LG's expense.

For SolaX or Opal solar battery systems:

1. If you have installed LG S/A Gen2 ESS batteries or a SolaX X-Cabinet, Power Station or Opal Storage system containing LG S/A Gen2 ESS batteries, or if you are in doubt, immediately contact SolaX Power by email at service@solaxpower.com or

by telephone at 1300 476 529. SolaX Power will help you find out if the battery is affected.

Remedy

If a battery is affected by the recall, it should be switched off immediately until it is replaced.

Contact the consumer and advise them to switch off the battery. To turn off the battery, refer to the instruction manual of the energy storage system or contact the manufacturer for advice.

LG has given assurance that it will replace all affected batteries for free or provide a full refund and remove the battery from the premises.

LG is also offering to reduce the maximum state of charge of the battery to 75% to reduce the risk of fire until the batteries are replaced or removed. However, this charge reduction is only a short term remedial measure. This charge reduction cannot be applied to RESU10H Type-C batteries.

This charge reduction can be applied remotely where possible and LG will organise site visits for charge reductions to batteries that cannot be accessed remotely.

LG has given assurance that it will also provide financial compensation to consumers to offset any increase to electricity bills following switch off or charge reduction of batteries.

Affected products

The affected batteries are equipped with cells from all production lots manufactured between 29 March 2017 and 13 September 2018 and were supplied to consumers in Australia from 15 May 2017.

Affected model numbers:

- RESU3.3
- RESU6.5
- RESU10
- RESU13
- RESU7H Type-R
- RESU10H Type-C
- RESU10H Type-R
- RESU10H Type-R (Secondary)
- S/A Gen2 1P (EM048063P3S4)
- S/A Gen2 2P (EM048126P3S7)
- S/A Gen2 1P (EM048063P3S5).



Affected ESS home energy storage batteries

Affected RESU batteries are LG branded systems. Affected S/A Gen2 batteries are installed in non-LG branded systems including SolaX Power Station, SolaX X-Cabinet, Opal Storage, Redback SH5000, Red Earth Sunrise, Red Earth Drop Bear, Eguana Evolve and VARTA Pulse Neo.

Each battery is marked with a serial number.

Recall notices

For more information see the [LG](#) and [SolaX](#) recall notices at the [ACCC's Product Safety Australia website](#) or contact:

- LG Energy Solution Australia – 1300 677 273 or email productau@lgensol.com
- SolaX Power Aus Pty Ltd – 1300 476 529 or email service@solaxpower.com

Product Safety Recall - Davey spa controllers

Action by Building and Energy has led to the national recall of Spa Quip 800 and 1200 controllers involved in the tragic death of a Perth man.

There is a risk of electrocution during installation, servicing or repair as the controller socket's flexibility allows a plug to be forcibly connected upside-down. This could cause an electric shock resulting in death or serious injury.

An investigation by Building and Energy into the 2019 electrocution of a 50-year old man while replacing a pump for his home spa found the plug to the pump was forced into the controller upside-down, transposing the active and earth conductors and causing the metal motor frame to become energised. The spa was not connected to a protective residual current device (RCD).

A [national product recall](#) by the equipment supplier, Davey Water Products Pty Ltd, has been published on the Product Safety Australia website.

If you encounter these products in the course of your work please report it to Davey Water Products at SpaQuipRecall@davey.com.au

Product description

Spa Quip 800 and 1200 Spa Controllers used in small to medium-sized spas and swim-spas to connect and control the operation of spa components.

The affected model numbers are:

- Q800-30;
- Q800-30LAN;
- Q800-30R;
- Q1200-35;
- Q1200-35R;
- Q1200-45;
- Q1200-45R; and
- Q1200-60.

Affected serial numbers include:

- the numbers '208' or lower (e.g. ###208#####), or
- X05, X06, X07 and 108 (e.g. ###X05#####).

The serial number can be found on a white label in the outer cover of the controller housing.

Only products manufactured before February 2008 are affected by this recall.

Identification

The controller is part of the inner workings of the spa and will be found behind the spa's cabinet or under decking adjacent to the spa. The exact location of the controller will vary depending on the spa design. The simplest

way to identify whether a spa is affected by this recall is to look at the spa's touchpad design. Spas with touchpads similar to those pictured in the [recall notice](#) may contain an affected controller. If unsure, consumers can email a photograph of their spa touchpad to SpaQuipRecall@davey.com.au and a team member will confirm if it is an affected spa.

What should consumers do?

If affected, consumers should disconnect/isolate, and stop using the spa. Do not undertake any repairs or connect any new devices to the spa and contact Davey Water Products to arrange for a replacement controller to be fitted to the spa by a certified technician, free of charge.

For more information, contact Davey Water Products on 1300 232 839 (9am to 5pm AEST, Monday to Friday), email SpaQuipRecall@davey.com.au, or contact your local Davey pool equipment dealer.

Further information is available at the [ACCC's Product Safety Australia](#) website or the [Davey Water Products website](#).

Technical Questions and Answers

Q. What are the requirements for selecting an appropriate location for a battery energy storage system?

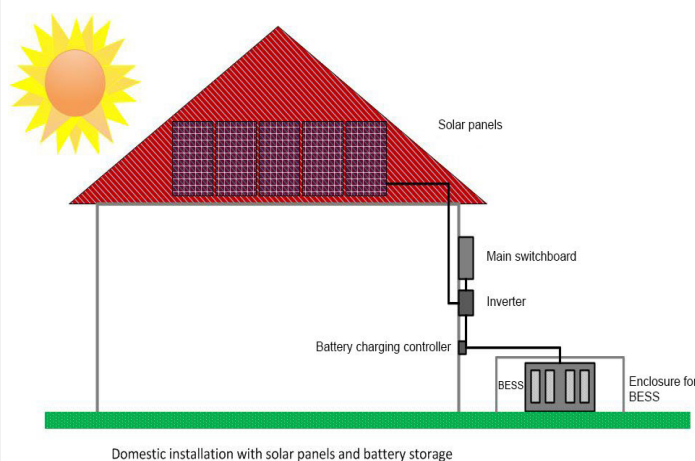
A. It is becoming more common for consumers to request that a battery energy storage system (BESS) be supplied and connected to their property. This might be in conjunction with a new or existing photovoltaic (PV) solar installation. Either way, it is critical that the electrician doing the installation selects a suitable location for the BESS.

A significant part of AS/NZS 5139:2019 is devoted to BESS location restrictions and, as this is a normative standard, it must be adhered to. The major concerns are fire, explosion and the blocking of egress in case of an emergency. Selecting a position that is convenient for the installer but fails to comply with the standard will result in an Inspector's Order being issued.

A BESS must be installed by a licensed electrician working under a current Electrical Contractor's Licence. The work is notifiable, meaning the contractor must submit a Notice of Completion to the network operator and an Electrical Safety Certificate to the customer.

Approval from the network operator is required before a PV or BESS system is installed to a network connected installation. The electrician must make sure that the required protection devices, isolators and signage are installed, including accurate emergency shutdown information signs.

Further information can be found in Building and Energy's publication [Battery Energy Storage Systems \(BESS\)](#).



Prosecutions

Please visit Building and Energy's website to view the:

[Disciplinary and prosecutions media releases - electrical](#) and [Disciplinary and prosecutions media releases - Network operators](#).

Industry news

Compliance checklist - Electrical Contractors/In – house licence holders

This checklist may assist Electrical Contractors /In-house licence holders to meet their compliance obligations under the Electricity (Licensing) Regulations 1991 (ELR). A current copy of the ELR and *Western Australian Electrical Requirements (WAER)*, should be kept at the principle place of business and be accessible to all Electrical Workers.

ELR reg/WHS	Business	Check Box
ELR reg.45(1)	At my place of business, I clearly display my: <ul style="list-style-type: none"> • business registration certificate; and • current Electrical Contractors Licence 	
ELR reg.39(1)	Building and Energy's Licensing Office has my current business legal or trading name that is registered with ASIC	
ELR reg.45(2)	Within 28 days of a change to the legal or trading name for my business, I have notified Building and Energy's Licensing Office	
ELR reg.36(2) & reg.36(3)	My business (if a firm or body corporate) has a management representative registered with the Electrical Licensing Board.	
ELR reg.36	I have a current public liability insurance policy against civil liability	
Invoices		
Recommended	Invoices are kept with copies of the relevant Notices and Electrical Safety Certificates	
	Invoices have a clear and accurate description of the electrical installing work carried out	
Advertising		
ELR reg.45(1)	My electrical contractor's licence number is clearly displayed on all advertising material including business cards, stationery (e.g. letterhead, quotes and invoices), pamphlets, signage on business premises and vehicles, online advertisements (e.g. Local Trades, Yellow pages, Facebook, Instagram, and Twitter websites), business directories, newspapers, television and radio (EC number vocalised) advertisements.	
Licensing		
ELR reg.20	All my electrical employees hold a current electrical licence or permit appropriate to their training (e.g. Electrician's Training Licence for apprentices)	
ELR reg.39	Building and Energy's Licensing Office has my current postal and residential addresses, phone numbers (landline and mobile) and email address	
ELR reg.28	If I have a change of address, Building and Energy's Licensing office is notified no later than 28 days	
ELR reg.20	My electrical workers only carry-out the electrical work authorised by the scope of their licence (e.g. permit holders and restricted licence holders)	
Recommended	I have subscribed and receive Building and Energy's online Electrical Focus publication	
Nominees		
ELR reg.36	My business has at least one nominee who holds a current Western Australian electrical worker's licence endorsed as an electrician's licence.	
ELR reg.38(6)	Building and Energy's Licensing Office is notified when an electrical worker's nomination has been cancelled	
	Building and Energy's Licensing Office is notified when a nominee has ceased employment at my business	

Industry news

ELR reg/WHS	Record of electrical workers	Check Box
ELR reg.57	I keep a record of all employed electrical workers which I regularly maintain	
	The record of electrical workers includes their: <ul style="list-style-type: none"> • name; • residential address; • licence number and type; • licence expiry date; and • details of the period when they were employed. 	
	The details of former employees are retained for up to two years from when they ceased employment	
Notices/eNotices		
ELR reg.51(3) & reg.52(1)	I submit Preliminary Notices and Notices of Completion to the relevant network operator or Building and Energy within the required time frames	
ELR reg.52(1a)	I keep copies of Notices for the required period of five years	
recommended	My nominee(s) are registered on eNotice	
Electrical Safety Certificates		
ELR reg.52.B	My customers receive an Electrical Safety Certificate within 28 days of the work being completed	
	I keep copies of Electrical Safety Certificates for the required period of five years	
	Electrical Safety Certificates are only issued by authorised electrical workers on behalf of my business.	
Worker safety and electrical compliance obligations		
Work Health Safety (general) regulations	My employees are trained appropriately to carry out their assigned tasks and are regularly assessed for competency.	
ELR reg.49 & reg.52C	All electrical installing work is checked and tested by a licensed electrician upon completion to ensure it is safe and complies with the Regulations. All test results are recorded and kept for 5 years.	
ELR reg.55	All electrical work carried out on or near an energized part of an installation is in accordance with regulation 55 and the Code of Practice – Working on or near energized installations.	
Work Health Safety (general) regulations	My employees are provided with the correct PPE (including testing and isolation/lock out equipment) to carry out their tasks safely.	
Recommended	Toolbox meetings are held frequently with my employees to discuss worker safety and electrical compliance. Records of these meetings are kept.	
Apprentices		
ELR reg.20 & reg.50AA.	My apprentice(s) hold an Electricians Training Licence and are regularly assessed for competency.	
ELR reg.50	I understand my requirement to ensure effective supervision of the apprentice(s) I employ. I have informed my supervising electrical workers of their obligations when supervising apprentice(s)	
Recommended	A copy of Building and Energy's Safe working guidelines and assessment for electrical apprentices has been given to my apprentice(s)	
ELR reg.49C. & reg.50	My apprentice(s): <ul style="list-style-type: none"> • understand their electrical work must be effectively supervised; • know who their supervising electrical worker is; and • know the level of supervision they are working under. 	
ELR reg.20	Upon completion of their apprenticeship, Electricians Training Licence holders are directed to Building and Energy's Licensing office to obtain their electrical workers licence	