



27 June 2023

Mr Dick Williams  
Reviewer  
Office of Industrial Relations  
GPO Box 69  
BRISBANE QLD 4001

Submitted via email: [espolicy@oir.qld.gov.au](mailto:espolicy@oir.qld.gov.au)

Dear Mr Williams

**Discussion Paper: A response to the Review of Queensland's Electrical Safety Act 2002 – key definitions and emerging technologies**

Energy Queensland Limited (Energy Queensland) welcomes the opportunity to provide comment to the Reviewer and the Office of Industrial Relations in response to the *A response to the Review of Queensland's Electrical Safety Act 2002 – key definitions and emerging technologies - Discussion paper* (the Discussion Paper).

This submission is provided by Energy Queensland on behalf of its related entities:

- Distribution network service providers (DNSPs), Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy);
- Retailer, Ergon Energy Queensland Pty Ltd (Ergon Energy Retail); and
- Affiliated contestable business, Yurika Pty Ltd and its subsidiaries, including Yurika Metering.

Should the Office of Industrial relations require additional information or wish to discuss any aspect of this submission, please contact either myself, or [REDACTED] on [REDACTED]

Yours sincerely

[REDACTED]

Ben Carberry  
**Acting Manager Regulation**

[REDACTED]

***Encl:*** Energy Queensland comments to the Discussion Paper questions

## Electrical safety considerations of new and emerging technologies

### 3.1.6 Questions seeking feedback

***How are you, your organisation or your stakeholders affected by the problems identified and to what extent?***

Energy Queensland notes an example provided in the Report, "...in the first quarter of 2023 in the Gold Coast and Ipswich regions of Queensland, ESO Electrical Safety Inspectors have responded to five separate incidents involving smart meters connected to solar PV installations." We suggest it may be beneficial to be more specific about the cause of these separate incidents involving solar PV installations. Providing clarity on contributing factors such as unsafe electrical work or defective solar equipment would add transparency along with removing the possible suggestion that the smart meter was the cause of incidents.

Further, in Energy Queensland's view, Recommendation 13 (part) will increase the Full Time Equivalent (FTE) hours to manage additional incidents that are now required to be captured by the new definition as provided in the Discussion Paper. We also suggest, additional FTE hours will also be required to address any follow up requests for information from the regulator related to the reported event.

Ergon Energy and Energex has identified limits in current systems that prevent allocation of jobs to be issued to off-grid installations, as they are not in our customer account database (PEACE) or identified as network connections in FdrStat (Ergon Energy) or PowerOn (Energex).

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***Do you agree with the assessment of the problem identified, and are there any other elements to the issue that you think have not been captured?***

***If yes, what are they and can you provide examples of these issues?***

Although not specifically highlighted, recommendation 4 will address Energy Queensland's previous concerns specific to high fault current from extra low voltage (ELV) equipment. In our view, the additional items that now meet the criteria of 'Electrical Equipment' will have a flow on effect of being 'electrical work' and require appropriate licencing as per the *Electrical Safety Act 2002* (the Act).

Energy Queensland suggests additional clarity may be required for the ELV Electrical equipment general category exemption. We note the Discussion Paper is silent on whether the additional ELV electrical equipment that reflect a risk to life or property will meet the criteria to be classed as electrical work. If considered electrical work the appropriate licence to perform the associated electrical work may be required. Energy Queensland requests clarification on this matter.

We note following the Initial Paper for the Electricity Safety Act 2002 review, a relevant Australian Standard has been revised (AS/NZS 4777.2) and incorporated into the National Electricity Rules (NER).

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***What practical impact in the form of benefits would the options proposed in the Discussion Paper have on you, your organisation, the workforce or the community? Please provide examples where possible, including for new and emerging technologies and ELV equipment.***

In Energy Queensland's opinion the practical benefits include the reduction of the likelihood of exposure to electrical risk to industry and the community posed by new and emerging electrical technologies. Specifically, the framework should remain responsive and withstand the emergence of new technologies. However, in our view, greater clarity is required regarding licensed and unlicensed work.

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***What practical impact in the form of costs, would the options proposed in the Discussion Paper have on you, your organisation, the workforce or the community? Please provide examples where possible, including for new and emerging technologies and ELV equipment.***

As highlighted in our response above, recommendation 13 (part) will increase the FTE hours to manage additional incidents that are now required to be captured by the new definition and then meet the criteria of a reportable event by Ergon Energy and Energex as distribution entities. Significant costs will also be incurred to update distribution network service provider (DNSP) incident management systems as current software systems are not designed for work required on off-grid installations or for battery cell failures (handheld devices) that are not related to an installation or DNSP assets.

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***What is your preferred option for the various ELV discussed and why will it be best for you, your organisation and your stakeholders?***

Energy Queensland prefers Option 2. We agree that increased regulatory control in this area will drive additional electrical safety, both in the products provided and the manner installed. DNSPs have responsibilities under the Electrical Safety Regulation 2013 to respond to electrical safety concerns and shocks, and regulation should reduce the risk from unsafe electrical equipment for both responding crews and the associated equipment owners/users.

We also suggest Option 3 should be undertaken to support option 2.

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***If you prefer Option 1 (status quo), how would the potential electrical safety risks of newer ELV technologies be minimised or eliminated?***

Energy Queensland does not prefer option 1.

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***Do you have suggestions for other options to address the problems identified? Please provide examples (including costs where appropriate) of your suggested options, including how it would ensure the workforce are electrically safe and conduct electrically safe work for community safety.***

Energy Queensland supports the proposal of licensing arrangements and electrical work requirements for ELV work.

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***Are you aware of evidence of the dangers of particular forms/categories of ELV equipment? If so, what evidence is available?***

Energy Queensland is aware of the incidents identified in the draft paper.

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***Should certain ELV equipment be included in the scope of the Act's regulatory reach that are not currently covered?***

Due to the incremental increase in technology in this field, Energy Queensland does not consider that limitation by product type is appropriate. In our opinion this may limit the ability to capture all and future ELVC equipment that have associated electrical risks.

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***What approach to including ELV equipment within the scope of the ES framework should be adopted in Queensland?***

Energy Queensland considers that section 14(2) should be amended to include new technology to ensure distribution networks are not required to exclude certain technologies. As per our response above, the revised Australian Standard (AS/NZS 4777.2) provides additional controls to manage these risks.

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***Should a measure of energy density/capacity be adopted? If so, which measure and what amount (e.g., how many watts per hour)?***

Energy Queensland considers that the Act must appropriately capture ELV systems with high arc fault levels. Amendments will be required to the definition of 'electrical equipment', to include any energy storage device with above a stated limit. For example, an arc flash risk of greater than 4cal/cm<sup>2</sup> or with a short circuit current of greater than 4kA.

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***Are you aware of evidence of the dangers of particular forms/categories of ELV equipment? If so, what evidence is available?***

Energy Queensland is aware of the evidence provided in the Discussion Paper.

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***Additional comments to the Office of Industrial Relations***

Arc flash rating is an identified electrical hazard that has driven legislated obligations to ensure that electrical workers wear the required arc rated clothes when performing this work. Using this criterion as a trigger point to include high fault rated ELV equipment would ensure that property owners are not at risk from this hazard, as residents and property occupants do not normally wear arc rated clothing when around high fault current ELV equipment on their property/site.

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## Changing landscape of electricity and the workforce

### 3.2.6 Questions seeking feedback

**1. How are you, your organisation, the workforce and the community affected by the issues posed by the changing landscape of electrical work? To what extent?**

The current energy transition has led to a significant increase in alternative supply sources that can back feed into the distribution network, Energy Queensland suggest this creates additional hazards, for example, high fault currents from battery banks (where potential above 4cal/cm<sup>2</sup> exists). In our view, this requires an elevated level of regulation. We note several recent examples where changes have been required to make interlocking system designs fail-safe, or to ensure adequate isolation is installed.

Energy Queensland recommends changes to section 224 of the *Electrical Safety Regulation 2013* to broaden the clause to ensure it also includes parts of a premises which may operate off a stand-alone Photovoltaic (PV)/battery system or rotating machine that may only be connected to the rest of the installation via a change-over switch in scenarios such as when the battery is depleted or in response to electricity market signals or drivers, notwithstanding that it is not associated with an emergency generation. In this regard, an additional section or sections should be included to appropriately cover the safety requirements of generating units that supply off-grid loads that are also capable of being grid connected, for reasons other than emergency supply.

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**2. How many workers have been impacted by the identified hazards or are exposed to such hazards and might be exposed in the future? Which workers/ businesses/ households are impacted by the problem?**

In our experience, the hazards associated with connection to grid or connection to building risks can impact multiple workers, including those required to isolate power for installation or network related work activities or in response to emergency make safe actions. Due to the storage capacity in certain types of systems, we suggest high fault currents may also cause a risk of fire or injury to other persons. Further, the inability to isolate supply promptly has the potential to increase the risk of property damage or injury.

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**3. Which are the key industries in which these tasks take place and how large are they?**

Energy Queensland suggests these tasks impact several industries, manufacturers of the systems, including emerging technologies. In our view, impacts private electrical contractors/workers and distribution entity workers, who work on premises/network connection points where the alternative generation units/vehicles are connected. The resident or persons in control of the site may also be put at risk, if required to isolate their supply.

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**4. Do you agree with the assessment of the issues identified with the changing nature of electrical work, are there any other elements to the issue that you think have not been captured? If possible, please share examples of your experience with these issues.**

**Risk 1**

Equipment mounted on roof structures is to be compliant to building codes (e.g., cyclone prone areas) and appropriate QBCC licenced personnel may be better placed to identify compliant methods rather than licenced electrical workers. However, we strongly suggest that electrical workers are required to supervise where PV panels are to be plugged together creating a voltage greater than ELV while installing panels on those structures.

**Risk 2 and 3**

Risks two and three have not fully considered external hazards that are associated with the identified work activities. While we agree, the criteria for these electrical work exemptions could be met, there can be additional hazards when the cable or conduit is near another buried cable or conduit that is still energised. In these situations, we suggest additional controls, that need electrical expertise, are required for working near the live underground cables. This includes knowing information such as (but not limited to); the type of installation, for example buried direct, in conduit etc), voltage rating, protection etc. This will also impact the type of work activity, tools and equipment that should be used relevant to the site situation.

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**5. What practical impacts – including costs and benefits – would each option have on you, your organisation, the workforce and the community? Please share examples of impacts and experiences of impacts, where possible.**

If Option 2 or 3 was to be implemented, impacts on the electrical industry relating to having enough suitable trained and licenced electrical workers to complete the direct supervisory roles or actual work would need to be addressed before enforcement of either option.

**Locating, mounting and fixing renewable energy generation and storage technology:** Options 2 and 3 are seen as providing additional safety benefits for electrical workers, the owners of the equipment and for the person having to operate the equipment. Implementing Option 2 would be prudent where individual equipment or a combination of off grid equipment that forms an installation has been assessed and demonstrated to cause a risk of death or injury should be covered by a legislative change.

**Laying, cutting and sealing of underground cables where cables are works of an electricity entity prior to connection:** Subject to the intent of the “supervision” intended by option 3 (Energy Queensland notes this is referred to as option 2 in the summary for this activity) Energy Queensland would consider that this control would be the best level of risk to cost management, in cases where no other electrical circuitry is installed near the location, noting that this activity is still then NOT considered electrical work and would be out of scope for controls related to electrical work if option 2 is not also adopted.

In cases where it is near other de-energised electrical circuits/equipment additional controls to prevent the risk of impact or damage for working near other electrical equipment will be required. Option 3 (with additional controls) (note; this is referred to as option 2 in the summary for this

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activity) EQL would consider that this control would be the best level of risk to cost management, in cases where other electrical circuitry is installed near the location, noting that this activity is then NOT considered electrical work and would be out of scope for controls related to electrical work if option 2 is not also adopted.

In cases where it is near other energised electrical circuits/equipment additional controls to prevent the risk of impact or damage for working near other electrical equipment will be required. Option 3 (with additional controls) (note; this is referred to as option 2 in the summary for this activity) EQL would consider that this option would be the best level of risk to cost management, in cases where energised electrical circuitry is installed near the location, noting that this activity is then NOT considered electrical work but should have in place controls for working near energised electrical equipment.

**Mechanical cable protection:** Subject to the intent of the “supervision” intended by option 3 (note; this is referred to as option 2 in the summary for this activity) EQL would consider that this control would be the best level of risk to cost management, in cases where no other electrical circuitry is installed near the location, noting that this activity is still then NOT considered electrical work and would be out of scope for controls related to electrical work if option 2 is not also adopted.

In cases where it is near other de-energised electrical circuits/equipment additional controls to prevent the risk of impact or damage for working near other electrical equipment will be required. Option 3 (with additional controls) (note; this is referred to as option 2 in the summary for this activity) EQL would consider that this control would be the best level of risk to cost management, in cases where other electrical circuitry is installed near the location, noting that this activity is then NOT considered electrical work and would be out of scope for controls related to electrical work if option 2 is not also adopted.

In cases where it is near other energised electrical circuits/equipment additional controls to prevent the risk of impact or damage for working near other electrical equipment will be required. Option 3 (with additional controls) (note; this is referred to as option 2 in the summary for this activity) EQL would consider that this option would be the best level of risk to cost management, in cases where energised electrical circuitry is installed near the location, noting that this activity is then NOT considered electrical work but should have in place controls for working near energised electrical equipment.

On specific recommendations we suggest:

Recommendation 5 - making earthing and bonding work electrical work will also increase costs to customers.

Recommendation 7 - adding conduit into electrical work is a significant change and very much limit our current practice and will increase costs to customers.

Recommendation 16 - may have serious flow on implications for ‘direct’ supervision re: RPEQ ‘direct supervision’ and if this definition of ‘direct’ was applied then we can no longer have remote RPEQ supervision.

Recommendation 28 - we note the Code of Practice Works 2020 binds electricity entities but not other entities; on the premise that it is largely electricity entities or their subcontractors working on High Voltage (HV) installations. With increasing numbers of HV installations, there is no similar code of practice promoting safety, or rules for bonding MEN/CMEN.

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**6. In relation to the following three risks considered, which of the four options do you think is best and why?**

- a. Fixing, mounting and locating of renewable energy generation and storage technology (such as solar PV panels)**
- b. Mechanical cable protection work**
- c. Laying, cutting or sealing underground cables that are part of the works of an electricity entity before the initial connection of the cables to an electricity source.**

Energy Queensland cannot identify a preferred option, due to a lack of clarity and inconsistencies in this section of the Discussion Paper. Specifically, the primary options as stated do not align with the related summary pages. In our experience, there are risks in electrical work and we suggest this section, in particular Option two and three would benefit from additional rigour and definitions to support. For example, inclusion of a definition for ‘supervision’, would provide consistency of meaning. This may reflect different supervision levels relevant to the task and experience.

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**7. Do you have suggestions for other options to address the issues identified? Please provide examples (including costs) on the impacts of your suggested options, including how it would ensure the workforce is electrically safe and conduct electrically safe work.**

Energy Queensland suggests this review should be done in conjunction with a review of the Code of Practice (COP) Working near overhead and underground electric lines and the COP Works, to ensure appropriate controls are in place when working near energised underground equipment.

Further, if the Office of Industrial Relations proceeds with changing the classification of electrical work, we suggest a separate assessment will need to be completed to determine the impacts. For example, how the deployment of these new criteria for persons undertaking this activity will be undertaken, appropriate levels of assessment training required by the persons performing these activities, feasibility of Recognition of Prior Learning, and licence types required and/or restricted to mention a few issues requiring further clarity. Importantly, we suggest consideration of appropriate timeframes to allow for the transition to the new requirements along with level of penalties for non-compliance short and long term to ensure compliance.

In our view, Option 4 should be completed in conjunction with the other options implemented.

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**8. The Review identified risks with the locating mounting and fixing of energy generation and storage electrical equipment. Do you agree that the risks identified are limited to this equipment? If not, what do you consider the scope of these risks to be?**

In Energy Queensland’s view, some of these risks will be applicable to other equipment located in these locations, such as rooftop air conditioning units will have cable crush risks. These should be considered in scope. Further, when working on equipment exposed to weather, additional hazards include ultraviolet damage along with heat stress compounded by the personal protective equipment required to be worn when working on or near energised electrical equipment.

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**9. The Review identified risks from the laying, cutting or sealing of underground cables that are part of the works of an electricity entity before the initial connection of the cables to an electricity source (section 18(2)(j) of the Act). Other exclusions for electricity entities also exist in section 18(2) of the Act.**

**Has the decentralisation of energy generation had a similar impact on the risk profile of these exclusions? Please provide examples where possible.**

Energy Queensland is not aware of any increase in this risk due the decentralisation of energy generation. In our experience, the types of impact damage to the distribution entity underground assets have remained consistent, including; fencing augers, directional borers, plumbing works, telecoms work, construction work and road work.

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### 3.3.6 Questions seeking feedback

#### **1. How are you, your organisation, the workforce or community affected by the problems identified and to what extent?**

Energy Queensland suggests further training and process will be required to ensure electrical safety is managed effectively, should Electric Vehicles (EV) be considered electrical equipment. Specifically, this should outline make safe obligations around reported electric shocks and safety concerns.

#### **2. Do you agree with the assessment of the problem identified, and are there additional risks presented by electric vehicles that have not been identified? If yes, what are they and can you provide examples of these issues?**

In Energy Queensland's opinion, energy storage, including at extra low voltage, has the potential to cause electrical risks, to the point that there is a threat to human life due to the potential for arc flash even when devices or systems have voltages well below 120Vd.c. For example, a 48V battery bank with a 12000A short circuit current could result in an arc flash of a degree 8.53cal/cm<sup>2</sup>, which is far in excess of the risk associated with working on a typical domestic switchboard. While this risk is not new, the level of industry involvement in energy storage has until recently been minimal (primarily involving uninterrupted power supply manufacturers and installers, communications systems installers and back-up and standalone power system installers). The availability of lower cost batteries and the ongoing development of more cost-effective energy storage will broaden the reach and potential risks associated with these devices and systems.

Energy Queensland therefore considers that the Act must appropriately capture extra low voltage systems with high arc fault levels. As such, we suggest amendments are required not only to the definition of 'electrical equipment', potentially to include any energy storage device with, say, an arc flash risk of greater than 4cal/cm<sup>2</sup> or with a short circuit current of greater than 4kA, but also licensing arrangements and electrical work requirements.

Energy Queensland is of the view that the current definition of 'electrical installation', which refers to "a group of items of electrical equipment that is (a) permanently electrically connected together... and... (3) In subsection 1(a) – an item of electrical equipment connected to electricity by a plug and socket outlet is not permanently electrically connected..." precludes new technologies that are portable, such as electric vehicle technologies, including cars, buses, trucks, and marine vessels. Energy Queensland would recommend reviewing AS/NZS 4777 to determine if these hazards/risks are captured effectively within the standard.

The implementation of Option 2 may mitigate electrical risks, particularly due to the large amount of storage contained in EV batteries and also as far as the assessment and maintenance of the individual electrical components of the electric vehicle.

For example:

- When work is performed on the electric motors to ensure insulation and windings have not been damaged as part of the maintenance process and tested before returning to service.
- The inspection and testing of the plug unit itself to ensure it is safe, well insulated and allows full insertion of the hand unit itself before charging without any carbon build up for the safety of the person performing the charge and those around them.
- The inspection and testing of the energy management unit to ensure the batteries could not be overcharged causing risk of fire.

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**3. What practical impact, including the costs and benefits, would the options proposed in the Discussion paper have on you, your organisation, the workforce or the community? Please provide examples where possible.**

Option 1: No benefit

Option 2: This option would partially mitigate some of the standards and electrically safety risks identified by Energy Queensland. Additional consideration should be given to the additional recommendations made by Energy Queensland.

Option 3: This option is an important factor and should be undertaken in conjunction with option 2.

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**4. What is your preferred option and why would it be best for you, your organisation and your stakeholders?**

Energy Queensland considers that a combination of options 2 and 3 would have the best effect to reduce electrical safety risks for workers, persons in control owners and any other person who is required to operate or be near the associated equipment.

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**5. If a licensing framework was introduced:**

**a. Should any specific type of vehicle be excluded for the requirement (e.g., motorcycles, cars, buses, trucks)? If so, what are they and why?**

**b. Is a restricted licence (specified training) or full licence (full apprenticeship) suitable? If so, why?**

**c. Should the licence type be determined based on the type of vehicle? If so, what would you suggest and why?**

**d. What types of work or occupations should be excluded from a licensing requirement? Or alternatively, what types of work or occupations should have specific licensing requirements (e.g., on-road works, general maintenance and check-ups, and/or removal and disposal)?**

**e. Are there any elements under the Act which should not apply? Which sections and why?**

**f. Are there situations in which a disconnect and connect restricted licence for performing work on non-propulsion components of a vehicle would be appropriate?**

- a. Presently electrical equipment manufactured in a workplace under a safe system of work does not require licencing. In our opinion, in cases that:
- align with the definition above, or
  - vehicles that are of an ELV potential with insufficient fault current to create an arc flash risk to human life, or
  - are managed under other legislation, such as the Mining and Quarrying Safety and Health Act 1999 (Qld).
- these may be considered as suitable to exclude from the licencing framework requirements.
- b. The Electrical Safety Act 2002 (Qld), supported by the Queensland Work Health and Safety Act 2011 (Qld), has in place a robust model to identify what work requires a restricted licence, a full electrical work licence or work that can be performed under a safe system of work in a workplace. The principals related to these current definitions should be maintained and reflected across this equipment and work activity.
- c. Refer to item b response.
- d. Refer to item b response.
- e. Energy Queensland provides no comment.
- f. Yes, this can reflect the current model used for testing and part replacement by Air-conditioning technicians, where a like for like replacement or a plug-in/plug-out component is replaced.
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**6. Do you have suggestions for other options to address the problems identified?**

**Please provide examples (including costs where appropriate) of your suggested options, including how it would ensure the workforce are electrically safe and conduct electrically safe work for community safety.**

Energy Queensland considers that section 14(2) should be amended to include new technology to ensure distribution networks are not required to exclude certain technologies, from connection to the distribution network.

Amendment to the Act is required to ensure:

- adequate safety standards are applied to grid connection of electric vehicle technology;
- connection contracts are in place for generation capable electric vehicle technology to support the stability of Queensland's electricity grid (including at times of minimum demand); and
- inverter technology and generating equipment for grid connection is recognised as requiring skilled and trained electrical workers to undertake any relevant design, connection, maintenance and commissioning work.

Further, the Act excludes all equipment operating at extra low voltage from being considered as electrical equipment under sections 14(1)(a) and (b).

Energy storage (including at extra low voltage) has the potential to cause electrical risks, to the point that there is a threat to human life due to the potential for arc flash even when devices or systems have voltages well below 120Vd.c. For example, a 48V battery bank with a 12000A short circuit current could result in an arc flash of a degree 8.53cal / cm<sup>2</sup>, which is far in excess of the risk associated with working on a typical domestic switchboard.

While this risk is not new, the level of industry involvement in energy storage has until recently been minimal (primarily involving uninterrupted power supply manufacturers and installers, communications systems installers and back-up and standalone power system installers). The availability of lower cost batteries and the ongoing development of more cost-effective energy storage will broaden the reach and potential risks associated with these devices and systems.

Energy Queensland therefore considers that the Act must appropriately capture extra low voltage systems with high arc fault levels (refer Appendix 1). As such, amendments will be required not only to the definition of "electrical equipment" (potentially to include any energy storage device with, say, an arc flash risk of greater than 4cal / cm<sup>2</sup> or with a short circuit current of greater than 4kA), but also licensing arrangements and electrical work requirements.

However, taking into consideration the potential impacts on existing industry participants and legacy systems, a staged approach to incorporating extra low voltage systems into the Act, together with the development of appropriate training and skills, may be appropriate.

Energy Queensland is of the view that the current definition of "electrical installation", which refers to:

"a group of items of electrical equipment that is (a) permanently electrically connected together... and... (3) In subsection 1(a) – an item of electrical equipment connected to electricity by a plug and socket outlet is not permanently electrically connected..." precludes new technologies that are portable, such as electric vehicle technologies, including cars, buses, trucks and marine vessels. Energy Queensland would recommend reviewing AS/NZS 4777 to determine if these hazards/risks are captured effectively within the standard.

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Technology solutions being installed with isolation at the switchboard that isolate only an intermediary device and not the embedded generating system do not satisfy AS/NZS 3000:2018, Electrical installations (known as the Wiring Rules), Clause 7.3 and could cause a safety risk for electrical workers who may expect the isolation devices to have isolated the embedded generation devices and connected wiring as required in AS/NZS 3000. It should be noted that a third party who is not the premises owner is often in control and/or owns the embedded generating system supplying into multiple premises who are the electricity account holders.

Therefore, this clause may need to be amended to provide coverage of new technology solutions. Energy Queensland suggests the following amendment to section 225(1) of the Regulation:

*“This section applies to a person if —*

- (a) private generating plant is installed at the person’s premises or is as part of the person’s electrical installation; and*
- (b) the private generating plant is intended to interconnect with the works of an electricity entity.”*

There may be further changes required to the Act or Regulation to adequately capture the requirements of equipment installed as part of a generating system connection to ensure compliance with the electrical installation requirements in section 225 and AS/NZS 3000 for the entire installation, including the equipment.

Electrical Safety Code of Practice - Managing electrical risks in the workplace – glossary definition for "Testing, fault finding or working on or near low voltage equipment" should be updated to reflect new technology solutions and any changes to the Act or Regulation. This definition should also be amended to include electrical installations and/or equipment associated with the interconnection of electric vehicles, particularly V2G or V2B capable systems and battery systems capable of generation at 230V.

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