





## Agenda

**Summary QECM** review

**Transition plan** 

Overview of key changes

4 QECM Q&A

## Connecting our future

Modern electricity solutions

# Smarter buildings and communities

Changing expectations for electricity needs. More complex electrical systems with integrated EVSEs and ESS, automated switching and local control.



#### Increased DER

Dynamic connections, including an increase in flexible loads





Improving and securing safer outcomes



# Interacting in new energy markets

Using consumer owned new energy tech to access energy market opportunities and to provide system support services.

### Focus areas

# Modifying existing installations

Improved "clarity" of compliance requirements

# Switchboard locations

Review and clarify switchboard location requirements



#### Property poles

Support new inspection requirements for Private Property poles & alignment with current safety practices

# Additional DNSP Service Points

Align with current policy for allocation of additional DNSP service points.

# Electric vehicle charging

Enable and support the safe and sustainable integration of EV charging infrastructure

## Queensland Energy & Jobs Plan Alignment

The updated QECM will help facilitate implementation of key deliverables in the QEJP under Focus area 2: Empowered households & businesses, by supporting:

- Smart meter device roll-out.
- Smart connections and network access for New Energy Tech, including EV charging infrastructure in buildings.
- Dynamic connections for customers
- Publish updated technical and connection standards via QECM

# QECM V4 Draft Public Consultation Feedback

- Public draft in July 2023
- 42 submissions
- >300 line items of feedback submitted
- 15 submissions provided feedback related to EVSE from charge point operators, OEMs, industry bodies and others.
- Topics related to EVSE included the following:
  - The provision of additional DNSP service points.
  - New options for Residential Customer EVSEs
  - Ensuring customers have options to charge their EV from their own PV
- Various other topics including AS/NZS 61439, metering, dynamic connections, emergency backstop, definitions, additional DNSP services, BESS, subdivisions, phase balancing, HV safety



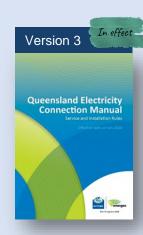
### Transition plan

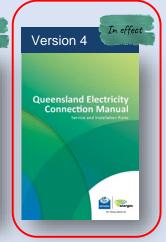
QECM V4 released: **15 December 2023** 

QECM V4 effective from : **21 February 2024** 

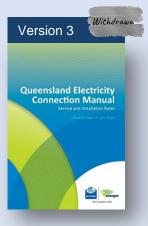
QECM V3 withdrawn on: 19 April 2024





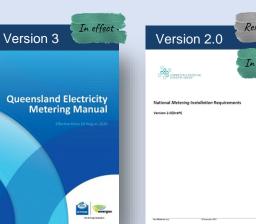






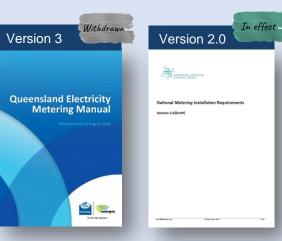


MIR effective from : **21 February 2024** 





QEMM V3 withdrawn on: **21 August 2024** 



Connection requirements

### QECM V4 Document Content Summary

#### **Preliminary**

- 1 Introduction
- 2 Definitions and abbreviations
- 3 Relevant rules, regulations, standards and codes
- 4 Connection activities

#### Meter board

- 9 Network device and metering general requirements
- 10 LV connected network device and metering requirements
- 11 HV connected metering requirements

#### Electrical

- 5 General connection and supply requirements
- 6 OH connection and supply requirements
- 7 UG connection and supply requirements
- 8 Electrical installation requirements

#### Operate

- 12 Testing and commissioning
- 13 Operations and maintenance

#### **Appendix**

Appendix A: QECM drawings
Appendix B: Activities requiring approval
Appendix C: Model standing offer
Appendix D: Static data and information
Appendix E: Dynamic data and information
Appendix F: Compliance checklists
Appendix G: Isolated networks
Appendix H:

Specification for metallic enclosures for direct connected metering installations

Appendix I: Controlled tariff requirements

Appendix J: Alterations of existing connections

Appendix K:

Stakeholder interactive

Appendix K:
Stakeholder interactive diagrams for connection participants
Appendix L: DNSP service area map
Appendix M: Card operated meter service areas
Appendix N: DNSP contact details

### Tips and tricks for reading the QECM

#### **Italics**

Words in italics are all defined terms.

Definitions are in Section 2. Where possible, definitions are aligned to or pointing to definitions in regulations, other standards, contracts etc.

#### **DNSP** contact details

DNSP contact details are easy to find by going to the back of the document.

#### **Drawing Supplement**

A drawing supplement has been provided to support the QECM. IT provides higher resolution graphics for the drawings and viewing of both the drawings separate to the document.



#### **Terminology**

In the QECM, shall is for mandatory requirements and should is for recommended requirements as per clause 2.3.

# **Drawings, figures and tables**

Clause 1.8 has a list of drawings, figures and tables in the QECM.

#### **Appendices**

The appendices indicate if they are normative or informative. A normative appendix has requirements that must be met. An informative appendix has useful information.

### **Key Changes**

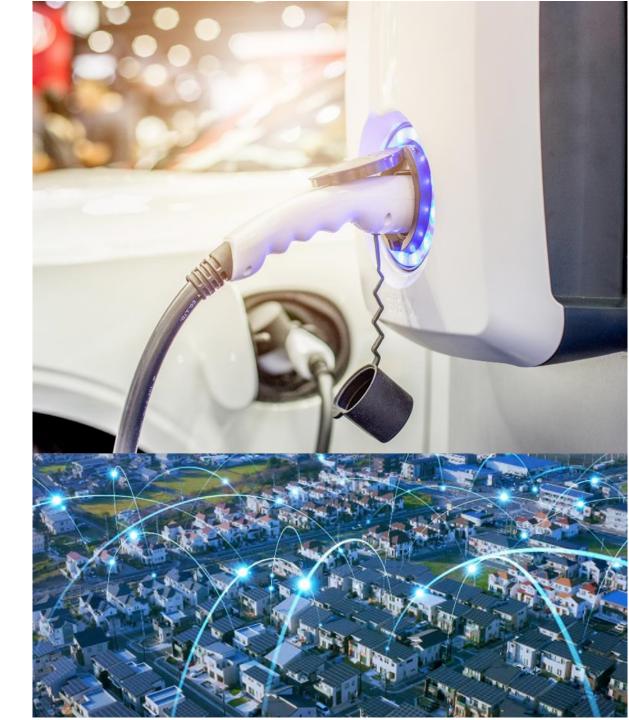
- Two new options to connect for 32A EV chargers
  - Both allow for charging from home solar PV, as connected to primary tariff.
  - Actively managed options.
  - Dedicated webinar planned in coming weeks.
  - Basic active management:
    - Available from 21 February 2024. Connect portal changes will be released.
    - DNSP owned device installed in switchboard
  - Dynamic EVSE:
    - Vendors/clients able to contact DNSP to have devices listed. See DNSP handbook for more details.
    - Dynamic Operating Envelopes are provided to EV charger/s at connection point. Minimum import limit is 1.5 kW.
- Updated additional service point requirements

Clarity on approval requirements, new categories, aligned with updated regulatory, safety and policy requirements.

Further review planned for next major version of QECM.

Phase balance limit updated

Limit at connection point now 25A limit for small connections and 10% limit for larger connections (see clause 8.4 for details)



## Other Key Changes

#### Asbestos

Clauses 4.3.1 and 9.1 includes information about a Proponent's responsibilities for removal of asbestos contaminated waste and regulated reporting that can occur if this is not undertaken. It is important to the DNSP that the Proponent meets their obligations and ensure safe handling of asbestos.

#### Two-phase supply

Clause 5.3 is allowing a duplex to be supplied with 2 phase power to the meter board. The installation can only be metered for single phase customers.

#### UG Builders Supply

Clause 7.8 (a) includes a drawing for an UG builders supply. This will be waived the duration of V4 of QECM. As an interim structure falls under the requirements of the Professional Engineers Act 2002, it is expected that an electrical contractor is taking responsibility for their obligations under the act.

#### Meter board locations

Clauses 9.6 and 9.8.1.1, 9.8.2 and Appendix J provide updated requirements and clarity around meter board locations.

- Additional location for houses without a front entry.
- Clarity for upgraded location options for domestic premises prior to 2015.
- Requirements for location in trafficable areas.
- Information for multiple lots with shared foundations or structures.

#### CT meter chamber location

To support safe testing CT metering chamber now clear that need to be in same location, no more than 5 m separation, no physical or visual barrier preventing access between them.

#### Main switch location

Clause 10.6.2.3 (h) &(f) meter board panel fixings – dedicated for metering equipment and network devices. Main switch shall be located in the meter board even if there is no dedicated area for Customer owned equipment provided (refer also to (i)).

# Important Asbestos Information

#### Asbestos related works

Minor work on non-friable asbestos can be done safely by following established safe work procedures to both reduce the likelihood of asbestos fibres becoming airborne and to reduce the risk of any fibres being inhaled.

Asbestos-related work means work involving asbestos, other than asbestos removal work, that is permitted under the Work Health and Safety Regulation 2011, such as, maintenance work that involves disturbing asbestos.

A person conducting a business or undertaking (PCBU) must manage the risks associated with asbestos-related work both to themselves and others.

#### If attending a domestic premise;

- No duty on the householder to have or provide an asbestos register.
- The PCBU attending the domestic premise has a duty to identify asbestos in relation to their work area.
- The worker has a duty to take reasonable care for their own health and safety and that of others.

#### Cleaning up after floods and storms

Information for home renovators, businesses and volunteers who are involved with clean-up and recovery of buildings damaged by floods, storms and other natural disasters.

Employers and workers involved in flood and storm recovery efforts must still remember their obligations under Queensland's health and safety laws.

These laws are in place to protect Queenslanders. By being vigilant and maintaining safety during this difficult time, you can help reduce the risk of death, injury and illness to yourself, your workers and others involved in the clean-up and repair effort.

Safe work procedures explaining <u>how to clean up storm - damaged asbestos</u> <u>containing materials</u> from around the home.

<u>Class exemption</u> —notification of licensed asbestos removal work due to flooding or severe weather conditions

The regulator has granted a class exemption to remove the requirement for licensed asbestos removalists to notify the regulator before carrying out licensed asbestos removal work if the work is necessary due to flooding or severe weather conditions (section 466, Work Health and Safety Regulation).

This class exemption took effect on 16 March 2023 and is in effect until 15 March 2028 unless amended or cancelled sooner.

Read more information on <u>demolition and asbestos</u>, <u>including training</u>, <u>personal protective equipment</u>, <u>decontamination and disposal of asbestos waste</u>.

### Other Important Asbestos Information

#### Competent Person

- Trained to handle and take asbestos samples, has the knowledge and experience to identify suspected asbestos and be able to determine risk and control measures;
- They also need to be familiar with local building and construction practices to determine where asbestos is likely to be present; and
- Be able to determine if a material is friable or nonfriable asbestos and evaluate its condition.

- Links to Work Health and Safety asbestos sites below with information relevant to QECM:
  - <u>Common locations of asbestos in domestic and commercial buildings</u> –
    points out electrical switchboards as a common location for asbestos.
  - <u>Electrical switchboards and meters</u> photos and more details on switchboards and meters.
  - <u>Asbestos-related work</u> calls out electrical switchboards as asbestos related works, provides details on documentation requirements, induction and training requirements.
  - <u>Prohibited activities</u> no power tools and HEPA vacuums are required.
  - <u>Trades and contractors</u> general information.
  - <u>Legislation and codes of practice</u> links to more than just Work Health and Safety laws that relate to asbestos.





Part of Energy Queensland

# More information and feedback

Fact sheets, QECM and information on QECM on website:

www.energex.com.au/qecm

**QECM V4 effective: 21 February 2024** 

For questions about QECM version 4 email:

qecm2024@energyq.com.au



**QECM** website





