ELECTRICAL CONTRACTOR UPDATE

QECM Update

The Queensland Electricity Connection Manual (QECM) provides minimum requirements for connection of supply to customer installations and is effective 1 July 2020. The changes include updates to responsibilities, contact details, terminology changes and policy changes. Some key changes to note include:

- Section 2.13.3 – is a new safety clause which restricts a generating system having a connection to both primary tariff and controlled tariff loads or having the capability to supply circuits.

- Section 3.2 - as communicated in the previous alert, we have a new Connection Policy. The new Model Standing Offer (MSO) for a basic connection is reflected in this section and the maximum permitted supply across the connection point is:
  - Urban premises – 100 amperes per phase
  - Rural premises – 80 amperes per phase
  - SWER premises – connected through a SWER line – 10kVA (approximately 40 amperes)

- Section 3.3.1 – Any supply greater than 100 amperes shall be 3-phase network connection

- Table 4.1 in Section 4.2- Alignment of switched load limit requirements for all equipment. This change is to deliver better network outcomes, encourage more energy efficient choices and make the guidance more practical for Electrical Contractors.

- Section 5 – expands on the requirements for connection of either overhead service line or underground cable at the connection point.
• Section 6 – contains metering installation requirements. There are updates throughout this section including clarity around what is required for new residential or commercial installations and what is required when additions and alterations works are occurring.

• Section 6.4.3 – All installations of Small IES at a customer’s premise require the metering equipment to be mounted on a hinged panel that does not contain asbestos with MIL and MNL.

• Section 8 – Contains the requirements and standards for connecting Embedded Generation System. This includes a new clarification provided around Electric Vehicle Chargers and Electric Vehicles as IES in section 8.4

You can download a copy of the latest QECM on our website, or complete an order form.

QEMM Update

The new version of the Queensland Electricity Metering Manual (QEMM) has been released and is effective 10 August 2020. The manual has had minor changes to reflect current processes and alignment to recent changes.

You can download a copy of the latest QEMM on our website, or by completing an order form.

When do I need to relocate the meter panel to a suitable position?

It is a requirement that all connection and metering installations meet all the requirements of the QECM and QEMM. The location a meter board was originally installed may no longer comply with the current requirements. Section 6.9.2 outlines the suitable metering position in conjunction with the location requirements of section 6.9.9.

Where any alterations or additions that are considered a major category of works as outlined in section 6.4.1 occurs, the meter board needs to comply with all the requirements of the QECM and QEMM. Major addition or alterations include the replacement of the metering enclosure.

This means that when you are replacing the metering enclosure you must relocate it to a compliant position and ensure the main switch and MEN is at the same location as the metering.

Please be advised that if the meter panel is not relocated when required, a defect notice will be issued and the meters will not be installed, and you may be charged a call out fee if we are unable to perform the job.

A reminder about Asbestos Containing Materials

When undertaking work on a customer’s installation and there’s suspected Asbestos Containing Materials
Materials (ACM), there’s a requirement to ensure this material is managed in accordance with the appropriate code of practice. This includes all ACM waste being appropriately disposed of at the completion of the job before any Distribution personnel or representative attends site (as per QECM 6.1).

Part of this requirement also prohibits the moving of such material from one location to another. Accordingly, existing meters from an ACM board are unable to be relocated to a new board.

Non-Domestic Load Control Tariffs

From 1 July 2020, we have expanded the availability of load control options for non-domestic purposes. These will allow for business customers to connect a range of equipment to load control tariffs over and above the appliances historically connected to load control tariffs (e.g. domestic hot water, pool pumps etc).

Some electricity retailers may choose to make these Network tariffs available over the next year, therefore we would like to encourage customers to speak to their chosen retailer when considering new tariffs. Load control tariffs offer a discount off other non-interruptible tariffs. For large customers, it is the only network tariff option that has a fixed charge + kWh consumption tariff structure (no demand charges).

Please refer to the Non-Domestic Load Control Tariff presentation for more information about these tariffs and what they mean for you and your customers.

Please note: Currently the Queensland Competition Authority (QCA) has not made these tariffs available for Ergon Energy Retail customers in regional Queensland. This is under review and these tariffs may be available to these customers later this year.

Introducing the new state-wide Major Customer Manual

As we continue to align our practices across Queensland, we would like to introduce our brand new Joint Major Customer Connection Manual. This manual has replaced Energex’s Large Customer Connection Manual and Ergon Energy Network’s Major Customer Connection Manual.

A Major customer refers to certain customers with connections that fall within the tariff classes of Connection Asset Customer (CAC) and Individually Calculated Customer (ICC), embedded generators and real estate developments. Generally, commercial HV connections over 1 MVA, any non-registered generating system over 30 kVA and real estate developments are major customers. If you would like more details as to whether this manual applies to your connection, please visit our website.

The joint manual reflects the alignment achieved and changes made within our recently released Connection Policies, including:

• Updates to the cost recovery methodology to align with the Connection Policies;
• Inclusion of the subsequent sharing of connection assets, or pioneer scheme, from the Connection Policies;

• Minor updates to the transmission connection project examples in Appendix 1 and Appendix 2 to be more reflective of recent major connection examples; and

• Relevant streamlining of information and updates to ensure references and process alignment remain current.

**A reminder from the Electrical Safety Office - Take care with switchboard wiring**

Electrical workers and contractors should take care when locating meter wiring and other cables in switchboards. The clearance between hinged escutcheon panels and the neutral and earth links on some switchboards can be quite small. Our Connection Officers have advised of many incidents where active meter wiring has short circuited against neutral and earth links when the escutcheon panel is closed, damaging the conductor insulation and resulting in the operation of the service fuse. These incidents can cause electric shock or arc flash injuries to workers and can result in significant property damage and expensive call out fees to replace blown service fuses. You can avoid them by taking the time to fully consider the layout of your switchboard wiring, particularly cables that might move when you close a hinged panel. As every switchboard is different, you’ll need to assess the best approach when selecting and installing wiring systems. For example, one practical method to make switchboard wiring safer is to use the supplied cable tie access points to hold cables clear of anything that could damage the cable insulation. For more information refer to the Wiring Rules AS/NZS 3000:

• section 3.3.2.6 Mechanical damage; and

• section 3.3.2.8 Other mechanical stresses.

Where the installation doesn't meet the requirements of the Distributor a defect notice will be issued to rectify the installation. The below images are examples of poor installation practices and depict building wire in contact with or near the neutral bar.
In addition to this, we have seen an increase in the use of the 50mm knock-outs in the back of switchboards to bring the Consumers Mains conduit through. This raises safety concerns as the isolation links on the meter panels are directly in front of these conduit entries / 50mm holes. Utilising these knock-outs and not reinstating the protection against solid objects & entry of water has the potential for accessibility to live parts. So, please ensure if you are using this conduit entry location into the switchboard that the conduit entry is sealed appropriately, and protection is reinstated in accordance with AS60529.

Low Voltage Network Device Pilot Project

We are currently trialling Low Voltage (LV) Network Devices on customer meter panels. Safety by design is fundamental to our network strategy, providing safe and reliable electricity to almost 2.5 million residents and businesses across Queensland. Neutral integrity failures on the LV network
are a significant contributor to customer safety incidents. We are committed to customer safety imperatives and consider the detection of neutral failures to be critical to mitigating customer safety risks.

We have partnered with Redback Technologies to trial a Network Device to monitor the health of the neutral connections. This network device is installed at the customer’s meter panel. Through the recording of voltage and current measurements, the unit can calculate the sites impedance and indicate when a possible neutral integrity fault is present. Remote monitoring is carried out via a small modem mounted on the external of the meter box. The data is collected at 1-minute intervals and analysed by a web-based portal from Redback and into our Network Operation Data Warehouse.

For more information about this trial please email us.