

# Meter Bypass Guide

**Purpose:** This procedure provides guidance for Authorised Service Providers and qualified electricians on the requirements for safely bypassing meters.

Meters that have been submerged in water must be bypassed. This includes General Supply, Controlled Load Meter and Controlled Load Supply (FIR).

If at any time you are unsure of what you are looking at, unsure of what you need to do or unsure of how you are to proceed, **stop and call someone** (see key contacts listed on page 4).

## SAFETY

- ▶ At all times, consider the safety of yourself and the customer when bypassing meters, and follow your own safety management systems and safe work methods.
- ▶ Ensure you have isolated all incoming supplies even if the network is de-energised.
- ▶ No electrical equipment should be assumed to be de-energised after disconnection or isolation. **ALWAYS TEST PRIOR TO TOUCHING.**

## TYPES OF METERS

- ▶ Whole current types 4, 5 & 6 meters only and frequency injection relays (FIR).
- ▶ CT metering not included. Please contact Essential Energy key contacts for CT metering.

## ASSESSING THE SITUATION

- ▶ There are many different meter wiring configurations. Carefully check wiring before disconnecting meters.
- ▶ Ensure that you understand the wiring configuration; if you are unsure, call the Essential Energy contacts listed below to assist you.
- ▶ A fuse or circuit breaker must never be bypassed.
- ▶ If an SPD or MPD has been damaged, it must be replaced before the meter can be bypassed and installation re-energised.

## METER NEUTRALS

- ▶ In some installations you may find the main neutral terminates in the meter terminal and there is no Service Neutral Link. This neutral may daisy-chain to other meters, or there may be two or more neutral cables joined together in a meter terminal to supply a neutral to other meters, FIR's or timeclocks.
- ▶ The approved methods mentioned below can be used to join two or more neutrals together.
- ▶ Neutral integrity is important as an open circuit in a neutral can lead to electric shocks and tingles.
- ▶ If you are not sure of what you need to do, call the contacts listed on page 4 and ask for assistance.

You may then use one of the methods listed in the following pages to bypass the meter.

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## METHOD 1 - INSULATED 2 SCREW CONNECTOR

- ▶ May be used to join 2 or 3 cables together to get domestic and hot water working if there is room behind the board/panel. These will accommodate 2 x 35mm<sup>2</sup> cables and does not damage the cable as much as an HSC.



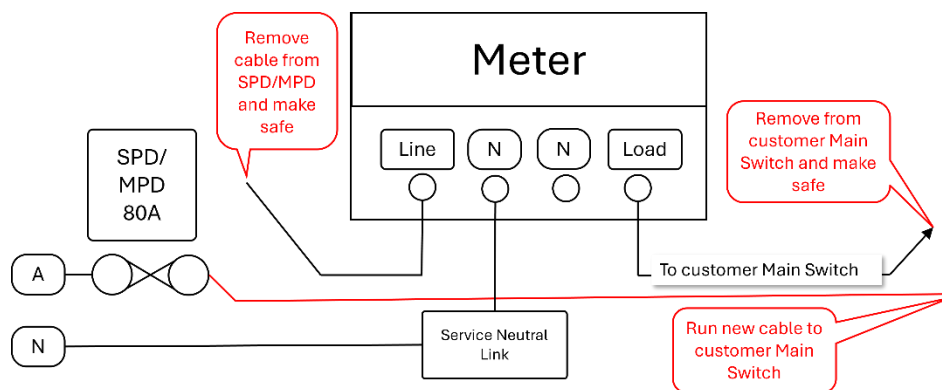
## METHOD 2 - HOUSE SERVICE CONNECTOR (HSC)

- ▶ In situations where the cables cannot be moved into the same terminal, and you do not have any insulated 2 screw connectors, a HSC can be used to connect the cable behind the meter panel if there is room.



## METHOD 3 - SEPARATE CABLE DIRECT FROM MPD TO MAIN SWITCH

- ▶ If it is a 100A supply but due to the cable route, cable size or cable condition you cannot use the above methods, a minimum 6mm<sup>2</sup> cable can be run from the Load terminal of the MPD directly to the Main Switch(es).
- ▶ Care should be taken when you are working on a three-phase supply not to cause a phase-to-phase short circuit.
- ▶ Care must be taken to ensure the same phase rotation has been maintained once bypassing is complete.



## METHOD 4 - 4-WAY UNDERGROUND CONNECTOR

- ▶ May be used to join 3 or 4 cables together to get domestic and hot water working if there is enough room behind the board/panel.



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## BYPASSING FREQUENCY INJECTION RELAYS (FIR)

- ▶ Remove 4mm or 6mm Line side active from 40A single phase relay switch and load side active and twist together and connect with suitably rated single screw BP connector rated at least 20Amps. Put both lower and upper covers back on receiver so no wiring is exposed.



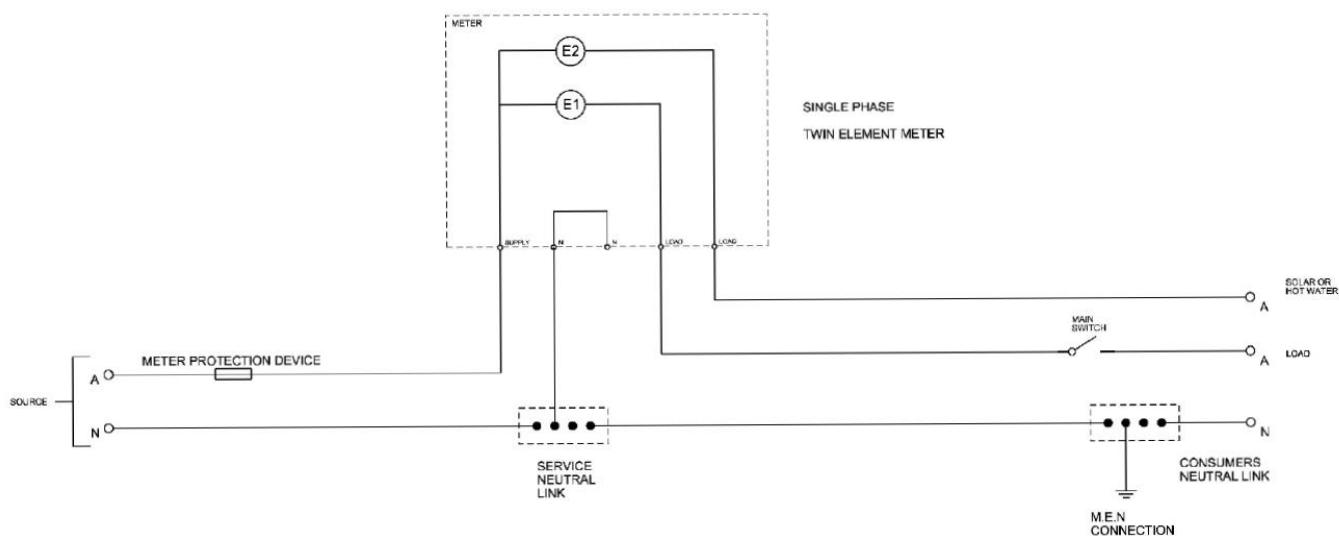
NORMAL WIRING



BYPASSED

## ADVANCED MULTI ELEMENT METERS

- ▶ Most retailer owned meters have more than one element available and may measure general rate, hot water, and solar export in the same meter. If you are unsure of the wiring configuration, do not bypass and call for assistance.



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## Non-approved methods



- ▶ Line taps and tape. A line tap must not be used to join cables to bypass a meter.
- ▶ An IPC used for OH connections must not be used to join cables to bypass a meter.

## Required actions after bypassing meters



1. Recheck and test all tariffs are bypassed correctly.
2. Submit a CCEW via Essential Connections Portal noting in the particulars section that:
  - a. the meters have been bypassed; and
  - b. the customer's electrical system has been thoroughly checked and tested and is safe to be energised.
3. If the premise is reconnected by a L2 ASP, a Notification of Service Work (NOSW) must be submitted by an authorised Level 2 ASP for the type of reconnection performed.

### KEY CONTACTS

- ▶ Port Macquarie – Ben K Dennis - 0400 603 198
- ▶ Taree – Maxwell Schlenert - 0404 295 760
- ▶ Kempsey – Martin Dick - 0475 247 944
- ▶ Regional Coordinator – Darren Butler - 0427 414 068
- ▶ Network Assurance Manager - Kevin Miller - 0407 784 701