

# Low Voltage Customer Connection and Polarity Checks Test Certificate

Version 3 – 220F028E  
Issued Date 12 March 2024

**Certify** where required that the information written on this Certificate (and its attachments) is a true and correct record of the works undertaken and that the equipment is ready and safe to be livened.

**Retain** a copy of this Certificate (plus its attachments) on your files and **send all of the originals to Powerco** as prescribed in Powerco's 360S014 *As Built Reporting Standard* and 360S016 *Guide to Recording Electricity Assets* standard.

This form may apply to the livening of between 1 and 4 overhead or underground service connections (per service pillar or service pole or transformer). Where an asset has more than four (4) service connections then a new form shall be completed for the extra service connection/s. Complete this form whenever a new service is connected, or existing service is reconnected.

**Note:** Connect means electrically terminate (physically connect) all service line conductors, which includes all phases and the neutral and any pilot wire, to the Point of Supply.

Service No. This could be the street address if known or the LOT no. if unknown.

|                                 |  |                                  |  |
|---------------------------------|--|----------------------------------|--|
| Job Name                        |  | Contractor Name                  |  |
| Address (Street, Town/District) |  | ICP No/s                         |  |
|                                 |  | Or LOT no. if ICP no. is unknown |  |
|                                 |  |                                  |  |
|                                 |  |                                  |  |
| CIWR No.                        |  | Contractor Job Cost Code         |  |
| SAP W/O No.                     |  |                                  |  |

## a) As-Built Information Records have been uploaded to SAP

Confirmed ✓

|  |  |
|--|--|
| 360S016EA As-built Low Voltage CIWR Connection Record attached   |  |
| All circuits correctly labelled per Powerco's 393S004 Labelling and Safety Signage Requirements Standard |  |

## b) Service Connection Details (insert no.)

Service No: \_\_\_\_\_ Service No: \_\_\_\_\_ Service No: \_\_\_\_\_ Service No: \_\_\_\_\_

| Phase                                      | (Tick) ✓ | R | W | B | R | W | B | R | W | B | R | W | B |
|--|----------|---|---|---|---|---|---|---|---|---|---|---|---|
| Protective device (e.g.: HRC Fuse C/B etc) |          |   |   |   |   |   |   |   |   |   |   |   |   |
| Protective device Rating                   |          |   |   | A |   |   | A |   |   | A |   |   | A |

## c) Polarity and Phase Rotation Tests

Confirmed ✓

|  | Service No: | Service No: | Service No: | Service No: |
|--|-------------|-------------|-------------|-------------|
|  | _____       | _____       | _____       | _____       |
| The polarity of all phase and neutral conductors has been verified in accordance with the <i>EEA Guide for Livening of Service Connections to Premises Rev 1 Nov 2010</i>                        |             |             |             |             |
| The phase rotation has been verified in accordance with the <i>EEA Guide for Livening of Service Connections to Premises Rev 1 Nov 2010</i> . Indicate N/A for 1 phase and 2 phase installations |             |             |             |             |

## d) Documentation to be sighted prior to livening

Confirmed ✓

|  |  |
|--|--|
| For a new connection, or if any Prescribed Electrical Work has been carried out, the applicable documentation has been sighted prior to livening the service (e.g.: ROI, CoC, ESC etc) |  |
|--|--|

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## e) Service Cable Insulation Resistance Measured Values

Ensure that the phase conductors of each Consumer service line or cable have been isolated at the main switch.

**Note:** The removal of the MEN neutral to earth link in the Consumer's switchboard is considered to introduce another possible safety risk and as such this is NOT required for these tests.

Service cable insulation resistance shall be measured with a 500 volts DC Insulation Resistance Tester ("Megger" or similar). The reading should be recorded when either the indicating pointer remains stationary or the first digit to the left of the decimal point on a digital display stabilises

| Insulation Resistance Tests | Measured Megaohm Value - Indicate within limits with a ✓ or X if outside limits |               |                   |               |                   |               |                   |               |   |
|-----------------------------|---|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|---|
|                             | Service No: _____   | Within Limits | Service No: _____ | Within Limits | Service No: _____ | Within Limits | Service No: _____ | Within Limits |   |
| R to W+B+N                  | MΩ  |               | MΩ                |               | MΩ                |               | MΩ                |               | Acceptable results shall not be less than one (1) Megaohm |
| W to R+B+N                  | MΩ  |               | MΩ                |               | MΩ                |               | MΩ                |               |   |
| B to R+W+N                  | MΩ  |               | MΩ                |               | MΩ                |               | MΩ                |               |   |

## f) Loop Impedance and Voltage Tests

Measure the Loop Impedance and Voltage of each service at a point beyond where connections have been altered (Refer to 220S047 Loop Impedance Testing Standard) **Indicate test position eg: Meter Board, Service Fuse etc.**

|        | Service No._____   |                  | Service No._____   |                  | Service No._____   |                  | Service No._____   |                  | Acceptable results shall not exceed max. values for size of service fuse. Refer to 220S047, Table 1 |  |
|--------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|---|--|
|        | Test Position_____ |                  | Test Position_____ |                  | Test Position_____ |                  | Test Position_____ |                  |   |  |
|        | Measured Impedance | Measured Voltage | Measured Impedance | Measured Voltage | Measured Impedance | Measured Voltage | Measured Impedance | Measured Voltage |   |  |
| R to W | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                |   |  |
| R to B | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                | Fuse SizeMax. loop Z  |  |
| W to B | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                | 20 A1.8 Ω   |  |
| R to N | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                | 32 A1.2 Ω   |  |
| W to N | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                | 63 A0.58 Ω  |  |
| B to N | Ω                  | V                | Ω                  | V                | Ω                  | V                | Ω                  | V                | 100 A0.26 Ω   |  |
|        |                    |                  |                    |                  |                    |                  |                    |                  | 160 A0.14 Ω   |  |
|        |                    |                  |                    |                  |                    |                  |                    |                  | 200 A0.11 Ω   |  |

## g) Testing Attestation

I certify that the work to which this certificate applies has been done lawfully and safely and that the information in this certificate is correct and that the equipment is safe to energise

|            |  |               |  |
|------------|--|---------------|--|
| Print Name |  | Signed        |  |
| Date       |  | ISN ID Number |  |