

## 1. SCOPE

This document details the application of SOP 394 (Applicable to Schneider Electric Circuit Breaker CBGS-0) issued by the Energy Networks Association.

## 2. ISSUE RECORD

This is a Reference document. The current version is held on the EN Document Library.

**It is your responsibility to ensure you work to the current version.**

Issue Date	Issue No.	Author	Amendment Details
February 2014	1	Geoff Wood	Original Issue
April 2019	2	Patrick Dolan	Revision of SOP application to reflect operational considerations for network running arrangements not previously covered
July 2021	3	Patrick Dolan	Clarification of SPEN application. VPIS can be used to confirm switch poles open without BB live under certain conditions.

## 3. ISSUE AUTHORITY

Author	Owner	Issue Authority
Patrick Dolan Lead Engineer	Fraser Shaw Substations Manager	Fraser Ainslie Head of Engineering Design and Standards

## 4. REVIEW

This is a Reference document which has a 5 year retention period after which a reminder will be issued to review and extend retention or archive.

## 5. DISTRIBUTION

This document is not part of a Manual maintained by Document Control and does not have a maintained distribution list.

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**7. SOP DETAILS**

<b>EQUIPMENT TYPE</b>	Schneider Electric Circuit Breaker CBGS-0
<b>ORIGINATING COMPANY</b>	ScottishPower
<b>DATE</b>	17th Feb 2014
<b>NUMBER INSTALLED IN ENERGY NETWORKS NORTH</b>	17
<b>NUMBER INSTALLED IN ENERGY NETWORKS SOUTH</b>	40
<b>REASON</b>	Potential for insulated drive link to circuit breaker disconnect to fracture.
<b>STATUS IN INITIATING COMPANY</b>	<p>Based on the information provided by the manufacturer the risk of failure is very low; however the following procedure is non-onerous, and is required to further minimise risk:</p> <ol style="list-style-type: none"><li>1. Before the establishment of a Point of Isolation or a Primary Earth is undertaken for the purpose of issuing Safety Documents, the feeder circuit must be disconnected from being energised from a remote source, and the correct functioning of the vpis proven by confirmation that all three phase neons are illuminated.</li><li>2. Immediately after the circuit disconnect is operated to the OPEN position, the circuit breaker must be closed, and the vpis neon indicators inspected to establish that none are illuminated.</li><li>3. Items 1 &amp; 2 must be proven immediately before the disconnect is closed to the EARTH position.</li><li>4. After the cancellation of Safety Documents, and following the operation of the disconnect from the EARTH position via the OPEN position to the CLOSED position, the circuit shall be energised by remote operation of the local CBGS-0 circuit breaker.</li><li>5. Following item 4, an inspection of the vpis neon indicators shall be made to confirm that all three phase neons are illuminated.</li></ol>
<b>SPEN APPLICATION</b>	<p>Application revised.</p> <p>Affected unit cannot be used as a point of isolation (unless all 3 phases proven OPEN by VPIS indication or under SFT).</p> <p>Affected unit cannot be used as a primary earth (unless proven under SFT).</p> <p>Following operation of the three position switch, the switch room shall be cleared of persons while energisation and/or paralleling of the unit or circuit by remote means.</p>

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**ADDITIONAL INFORMATION**

Does not apply to load break switch.

**UPDATE**

SOP has been updated as the guidance associated with its original application is not applicable to all network running arrangements or where operation of the equipment is necessary under fault conditions.

Clarification on SPEN application added. Previous statement:

Affected unit cannot be used as a point of isolation (unless all 3 phases proven OPEN by VPIS indication when BB is live or under SFT).

Amended to:

Affected unit cannot be used as a point of isolation (unless all 3 phases proven OPEN by VPIS indication or under SFT).

It is possible to confirm switch pole positions using VPIS on adjacent panels where feeder on associated panel switched is live and the CB is closed for the purpose of position verification.

**REMEDIAL ACTION**

Circuit breaker to be replaced as part of manufacturer service exchange' programme where available.

SOP will remain in force if equipment not returned to the factory (no on site fix available).

**8. SOP HEADER**

Field Name	Field Value	Field Size
<b>Name (SOPXXX)</b> *	<b>SOP394 Schneider (MESA) circuit breaker CBGS-0</b>	61
<b>The reason for the Operational Restriction</b> *	3 Pos Sw Drive link may break	30
<b>Nature of the Operational Restriction</b> *	3 Pos Sw position may not match indication	50
<b>Comments</b> *	Unit cannot be used as POI or primary earth (unless all phases positions proven). If 3 pos SW operated, remote energisation and/or paralleling of the unit or circuit req with personnel clear of plant.	200
<b>Restricted Access to Substation Flag</b> *	N	1
<b>SOP Impact Code</b> * (highlight or underline the appropriate code)	0 Temporary/Impact under assessment 1 Very minor operational/network impact <u>2 Moderate operational/network impact</u> 3 Significant impact on system perf./measurable business costs 4 Inoperable without intervention 5 Inoperable – no cost effective solution/must be replaced	N/A
<b>SOP component type</b> * (highlight or underline the appropriate code)	01 Bushing only 02 Circuit Breaker <u>03 Fixed Portion only</u> 04 Moving Portion only 05 Switch 06 RMU 07 Transformer only 08 Tap Changer only 09 Transformer & Bushing 10 Transformer & Tap Changer	N/A
<b>Search Criteria</b> *	Equipment type = MESA, CBGS-0, CBGS0 Serial range: All units manufactured prior to March 2014	N/A

\* This denotes a Mandatory Field