1. SCOPE

This document details SP Energy Networks’ approach to facilitating connection activities for Independent Connection Providers’ (ICP’s) to carry out LV and HV network connections. Whether under SPEN DSR’s or the ICP’s own DSR’s.

2. ISSUE RECORD

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

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

<table>
<thead>
<tr>
<th>Issue Date</th>
<th>Issue No</th>
<th>Author</th>
<th>Amendment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/03/2014</td>
<td>1</td>
<td>Nigel Evans</td>
<td></td>
</tr>
<tr>
<td>17/09/2015</td>
<td>2</td>
<td>Nigel Evans</td>
<td>Renamed - Revisions to comply with Ofgem Code of Practice</td>
</tr>
<tr>
<td>02/11/2018</td>
<td>3</td>
<td>Nigel Evans</td>
<td>General update to ICP authorisations</td>
</tr>
</tbody>
</table>

3. ISSUE AUTHORITY

<table>
<thead>
<tr>
<th>Author</th>
<th>Owner</th>
<th>Issue Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigel Evans</td>
<td>Michael Scowcroft</td>
<td>Sally Hughes</td>
</tr>
<tr>
<td>Senior Engineering Compliance Consultant</td>
<td>Process and Compliance Manager</td>
<td>Commercial &amp; Performance Manager</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date: ................................</td>
</tr>
</tbody>
</table>

4. REVIEW

This is a Controlled document and shall be reviewed as dictated by business / legislative change but at a period of no greater than 3 years from the last issue date.

5. DISTRIBUTION

This document is not part of a Manual maintained by Document Control and does not have a maintained distribution list, but is published to the Energy Networks Internet site.
6. CONTENTS

1. SCOPE....................................................................................................................................... 1
2. ISSUE RECORD........................................................................................................................ 1
3. ISSUE AUTHORITY .................................................................................................................. 1
4. REVIEW...................................................................................................................................... 1
5. DISTRIBUTION.......................................................................................................................... 1
6. CONTENTS .................................................................................................................................. 2
7. REFERENCE AND RELATED DOCUMENTS............................................................................. 2
8. GENERAL.................................................................................................................................... 5
9. INTRODUCTION........................................................................................................................ 5
10. ACCREDITATIONS .................................................................................................................... 5
11. SPEN AUTHORISATION ........................................................................................................... 5
   11.1 Introduction ...................................................................................................................... 5
   11.1.1 Low Voltage .............................................................................................................. 6
   11.1.2 High Voltage .............................................................................................................. 6
   11.1.3 Route to SPEN authorisation .................................................................................... 7
12. ICP DSR’s Authorisation ......................................................................................................... 8
   12.1 Introduction ...................................................................................................................... 8
   12.2 ICP responsibilities ......................................................................................................... 8
       12.2.1 Low Voltage ........................................................................................................... 9
       12.2.2 High Voltage ......................................................................................................... 9
   12.3 SPEN responsibilities .................................................................................................... 11
       12.3.1 Network District staff ............................................................................................ 11
       12.3.2 Control Centre ....................................................................................................... 12
   12.4 Data management ........................................................................................................... 12
   12.5 Network Access.............................................................................................................. 13
       12.5.1 Issue of Keys ........................................................................................................... 13
       12.5.2 Communication ..................................................................................................... 13
       12.5.3 Hire of SPEN equipment ...................................................................................... 14
13. APPENDIX A – APPLICATION PROCESS .............................................................................. 15
14. APPENDIX B – LV WORKING ............................................................................................... 16
15. APPENDIX C – HV WORKING .............................................................................................. 17
16. APPENDIX D – EXAMPLE CONTROL TRANSFER CARD ..................................................... 18
17. APPENDIX E - REQUEST BY ICP TO USE THEIR OWN SAFETY RULES ON THE SPEN DISTRIBUTION NETWORK. ........................................................................ 19
DEFINITIONS AND ABBREVIATIONS

DNO  Distribution Network Operator – Companies that own and operate electrical distribution networks.

DSR’s  Distribution Safety Rules – based on the ENA model safety rules

ICP  Independent Connection Provider – A company assessed and accredited through NERS to design and build electrical distribution networks

IDNO  An Independent Distribution Network Operator.

ISAP  ICP’s Senior Authorised Person who whilst working under the ICPs safety rules shall also take Field Control Person responsibility as defined in OPSAF-11-034 (MSP 5.4).

Handover  A point where all contestable work is complete, transfer of title, ownership, operation and maintenance responsibilities as defined in the Construction and Adoption Agreement has been transferred to the License Holders SP Distribution Ltd or SP England and Wales plc

N.E.R.S.  National Electricity Registration Scheme – operated by Lloyds Register on behalf of the UK DNOs’. Lloyds perform technical assessment of the Service Providers (applicants) who elect to be assessed for accreditation for contestable works associated with the installation of electrical connections.

Ofgem  Office of Gas and Electricity Markets

RAdAR  Register of Adopted Asset Requests system used for the Registration of Connection Enquiries and Management Process for Contestable Connection Projects

SAP  Senior Authorised Person under the employment of SP Energy networks

Safety Rules  The Electrical and Mechanical Safety rules applicable to work on the SPM or SPD network

SCC  SPEN Control Centre

SPEN  SP Energy Networks – Operator of network assets on behalf of SP distribution and SP Manweb plc.

SP Distribution plc (SPD)  Distribution License Holder – SP Distribution, Distribution service area formerly known as ScottishPower

SP Manweb plc (SPM)  Distribution License Holder – SP Manweb, Distribution Service area formerly known as Manweb

Working Day  Any day other than a Saturday, a Sunday, Christmas day, New Year’s day, Good Friday, Easter Monday or a day classed as a bank holiday within the meaning of the banking and Financial Dealings Act 1971.
7. REFERENCE AND RELATED DOCUMENTS

The following documents are related to the operational activities with respect to a new connection onto the SPEN network. With exception to the Statutory documents these documents are controlled documents and are not available for general scrutiny. All construction, monitoring and recording documentation can be found at:

www.spenergynetworks.co.uk/pages/documents.aspx

Statutory Related Documents

- Health and Safety at Work Act etc. 1974
- Electricity Supply Quality Continuity Regulations 2002 And subsequent Amendments
- Electricity at Work Regulations 1989
- Management of Health and Safety Regulations 1999
- Memorandum of guidance on the Electricity at Work Regulations
- Construction Design and Management Regulations 2015 (CDM)
- Reporting of Injuries, Diseases, Dangerous Occurrences regulations 1995
- Construction (Health, Safety and Welfare) Regulations 1996
- Provision and Use of Work Equipment Regulations 1998
- Supply of Machinery (Safety) Regulations1992
- IEE Code of Practice on In-Service Inspection and Testing of Electrical Equipment

SPEN Related Documents

- Scottish Power Safety Rules (Electrical & Mechanical) 4th Edition Issue 4 (Green Book)
- LWM - Live Working manual
- BUPR-10-020, Application and use of Geofield LV Management Package to support control of L.V. networks
- BUPR-11-019, Switching Schedule Operating Procedure (SOUTH)
- BUPR-22-015, Recording of Electrical Assets by Contractors
- CON-04-005, Register of Adopted Asset Requests (RAdAR) Process for Contestable Connection Projects
- OCC-04-014, Procedures for Handling PowerOn Schedules
- OPSAF-04-024, Identification, Register, Issue, Control & Inspection of HV Test Prods, HV Earthing Devices & Ancillary Equipment
- OPSAF-04-025, Manweb System Operation LV Network Interconnection
- OPSAF-04-028, SP LV Distribution System (Non-Interconnected)
- OPSAF-11-024, MSP 3.2 Connection, Energising, Commissioning and Permanent Disconnection of High Voltage Apparatus.
- OPSAF-13-001, MSP 5.1 Authorisation Procedures.
- OPSAF-13-003, MSP 5.1.1 Route to Authorisation
- QUAL-04-001, Equipment Plant Defect Reporting and Rectification
- QUAL-04-001, Equipment Plant Defect Reporting and Rectification – Appendix 1
- QUAL-10-204, HV & LV Customer Affecting Planned Outage Procedure
- QUAL-12-367, Data Management - PowerOn Patch Request Form 11kV Secondary Substations and Diagram.
- SMS-11-027, in-service inspection and testing of portable electrical equipment
- SWG-18-001, Ancillary Plant: Test Prod Devices for HV Tests
- SWG-18-100, Maintenance Procedure Check Sheets G3/A Ancillary Plant: Test Prod Devices for HV Tests
8. GENERAL

The information and guidance contained within this document remains the property of SPEN Energy Networks (SPEN) and may not be used for purposes other than that for which it has been supplied. It may not be reproduced either wholly, or in part, in any way whatsoever, nor may it be used by, or its contents divulged to, any other person whosoever, without the prior written permission of SPEN.

SPEN reserves the right to change the data contained within this document. SPEN accepts no responsibility for any inaccuracies in, or omissions from, the document.

The ICP is responsible for ensuring they have all the relevant information, approved PPE, approved test equipment and approved materials to undertake the work. Only an ICP possessing the right skills, training, knowledge and experience shall use the information and guidance within this document.

9. INTRODUCTION

The de-regulation of the electricity market has developed to a stage where it has been possible to allow accredited, authorised & suitably trained ICP’s to undertake live jointing of the newly installed contestable assets on new HV/LV housing developments, Industrial/Commercial and Generation.

It is the intention of SPEN to facilitate Ofgem’s request to extend the contestable element of works for new connections.

The arrangements shall apply to:

Low Voltage: Live mains and services connections metered and unmetered, Overhead and Underground.

High Voltage: 11kV Underground works only

All ICP works shall be undertaken in compliance with the relevant ICP’s DSRs. However, the ICP DSRs must take account of all appropriate SPEN policies and procedures and shall ensure that all contestable connection works are compliant with SPEN approved specifications.

The processes described in this document apply to ICPs working under their own DSRs. This means that, for the purposes of this document, SPEN DSRs, authorisations, approved equipment and tools which may be referenced in any of the SPEN documents specified in this document refer to the ICP equivalent DSR, authorisation, tools or equipment for which the ICP shall be solely responsible.

10. ACCREDITATIONS

All applicants must hold Lloyds Register NERS) accreditation with the relevant scopes applicable to the work involved. Anyone requesting to carry out activities under SPEN authorisation must have completed the following.

- Made an application to Lloyds register for the relevant scope of works
- Completed a satisfactory initial assessment by Lloyds Register to move to partial accreditation.

Informed SPEN of the above actions and provided SPEN with the Lloyds register contact name and number

11. SPEN AUTHORISATION

11.1 Introduction

Anyone intending to carry out operational activities on the SPEN network under SPEN DSR’s MUST hold the relevant current SPEN authorisation applicable to the company they are employed by.
The following criteria must be met before ANY SPEN authorisation is issued:

- The need for the person to be authorised has been justified, i.e. the person requesting the authorisation has a contract of work applicable to the authorisation being requested.
- The person has been deemed competent as defined in, or having followed the assessments contained in, OPSAF-13-003 (MSP 5.1.1), i.e. has proved to have the necessary experience, training, knowledge and understanding.

11.1.1 Low Voltage

The ICP shall:

- Carry out all Contestable Connection Works in accordance with all applicable SPEN and Connection Provider's policies, procedures and applicable legislation.
- See Appendix A
- Complete the works on the day agreed with SPEN
- Record all installed assets as per BUPR-22-015

11.1.2 High Voltage

The ICP shall:

- Carry out all works in accordance with all applicable SPEN techniques, policies and procedures and shall ensure that all contestable connection works are compliant with the Specifications referred to at [www.spenergynetworks.co.uk/pages/documents.aspx](http://www.spenergynetworks.co.uk/pages/documents.aspx)
- Where works are proposed to be undertaken on SPEN's distribution system, network access shall be provided as per QUAL-10-204 where customer affected planned outage is required.
- Switching schedules to be submitted to the control room as per BUPR-11-019 (SPM) and OCC-04-014(SPD)
- Receive notification where SPEN requires either stand-by generation or alternative network arrangements to be provided that will normally be carried out by SPEN at SPEN’s cost (there may be instance where SPEN agrees with the ICP that they carry out these works)
- Confirm to the control room by submission of a switching schedule.
- Complete the works on the day agreed with SPEN
- Record all installed assets as per BUPR-22-015
- Comply with SPEN OPSAF-11-024 (MSP 3.2) Connection, Energising, Commissioning and Permanent Disconnection of High Voltage Apparatus
- Where applicable patch request form to be submitted in the appropriate timescales as per QUAL-12-367
## Responsibilities - SPEN Authorised

<table>
<thead>
<tr>
<th>Activity</th>
<th>SPEN</th>
<th>ISAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Network Checks</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Switching Schedule</td>
<td>Control room approval</td>
<td>Create and pre-check</td>
</tr>
<tr>
<td>Outage Planning</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Outage Notification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Connection of Generators</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Altering protection settings at primary substation (if req’d)</td>
<td>Provide settings</td>
<td>Yes – if trained</td>
</tr>
<tr>
<td>Isolation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Earthing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cable identification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Spiking</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Permit For Work</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sanction for Test</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Provision of HV Diagram</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Access to Cable Records</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Equipment Testing (prior to energisation)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Commissioning (inc. Remote ends)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HV split point moves</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Energisation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Ownership of keys</td>
<td>job by job basis</td>
<td></td>
</tr>
</tbody>
</table>

### 11.1.3 Route to SPEN authorisation

All applicants must justify the need for authorisation and level of authorisation and submit an “Appendix 9 request for authorisation” form that is part of SPEN document OPSAF-13-001 (MSP 5.1). This Appendix 9 form needs to be signed by the network connections signatory and passed over to SPEN compliance section.

- All persons MUST show evidence of relevant training, experience and competency of Live LV network working.
- All persons must proceed through the same route as SPEN employees and follow the OPSAF-13-003 (MSP 5.1.1) Route to authorisation Document.

This route can be shortened if:

- The person has held the requested authorisation with SPEN within the past 12 months.
- Hold similar authorisations with another DNO/IDNO.

**Note:**

All SPEN authorisations are only valid whilst the person is actively carrying out the tasks relevant to the authorisation. If any persons are not carrying out the work on a regular basis, then SPEN reserve the right to remove the authorisation.
12. ICP DSR's Authorisation

12.1 Introduction

SPEN accept that ICP’s administer and control their own safety management system (SMS). Within this SMS some ICP’s can incorporate their own operational distribution safety rules, policies, processes and procedures.

To enable more flexibility and control within the ICP, SPEN allow all ICP’s to work under their own safety rules

12.2 ICP responsibilities

Before carrying out any works under this process then the ICP must register with the SPEN health and safety team.

SPEN health and safety team will keep a record of all ICP’s carrying out work under this process and communicate it throughout the SPEN business. (See Appendix A)

Where an ICP elects to carry out work using their own Safety Rules, then the ICP must:

- Hold the relevant NERS full or partial accreditation with the appropriate scopes to cover the work they wish to undertake.
- If at partial, they must be following the NERS process to move to full accreditation.
- Have distribution safety rules and procedures which shall be of an equivalent relevant standard to the SPEN’s (in all cases the SMS should align to OHSAS18001 or equivalent).
- Be responsible for determining the relevant competence requirements for the work to be undertaken and for the issue of an appropriate authorisation to their employees or contractors. The relevant competence requirements shall include any network specific issues identified by the ICP following consultation and communication with SPEN.
- Provide, if requested, details of their SMS to SPEN before first accessing the DNO’s Distribution System.
- SPEN reserve the right to carry out reasonable checks on the application of the relevant SMS to demonstrate so far as reasonably practicable to the Health and Safety Executive (or other interested parties) that safety assurance is in place for any ICP working on its Distribution System.
- All operatives need to be suitably competent, trained, experienced and authorised to carry out the intended works or activity under the ICP’s Safety Rules.
- Ensure all work carried out will be to SPEN approved materials and specifications documentation.
- Attend a SPEN induction briefing highlighting specific network and operational requirements on the SPEN network.
- Either party shall make available to the other relevant policies, operational processes, local information and procedures as required to facilitate safe working on a DNO’s Distribution System. This may be in writing or by personal briefing as may be appropriate, but in all cases the information exchanged shall be recorded and such records must be held for future reference by each party.
- Notify SPEN immediately if any unforeseen eventuality relating to SPEN’s distribution system arises during the course of carrying out the contestable connection works;
- Provide its personnel with all necessary safety equipment to enable them to work in a safe manner;
- Be solely responsible for safety of the public at all times during the connection works including instances where work is being carried out on un-adopted highways where the provisions of the New Road and Street Works Act 1991 might not apply.
12.2.1 Low Voltage

The ICP shall:

- Carry out all Contestable Connection Works in accordance with all applicable SPEN and Connection Provider’s policies, procedures and applicable legislation.
- Have a signed copy of SPEN (access to network document)
- See Appendix A
- Have SPEN local emergency number available on site.
  - North – 0141 776 2877
  - South – 0151 609 4999
- Record all installed assets as per BUPR-22-015
- Update a daily whereabouts register via Radar. This must be updated before 12 am the previous Thursday.

12.2.2 High Voltage

The ISAP will require a limited level of SPEN authorisation to carry out HV works. The minimum authorisation required will be:

- AME-SS – at the appropriate voltage levels.
- WI-1 – at the appropriate voltage levels.

If the SPEN SAP is carrying out network preparations i.e. backfeeds etc, then an additional authorisation will be required:

- OP-2 – at the appropriate voltage levels

The above courses can be booked by contacting SPEN at:

AuthorisationCompliance@scottishpower.com

The ICP shall:

- Carry out all works in accordance with all applicable SPEN techniques, policies and procedures and shall ensure that all contestable connection works are compliant with the Specifications referred to at [www.spenergynetworks.co.uk/pages/documents.aspx](http://www.spenergynetworks.co.uk/pages/documents.aspx)
- Where works are proposed to be undertaken on SPEN’s distribution system, where customer affected planned outage give a minimum 28 days’ notice.
- Receive notification where SPEN requires either stand-by generation or alternative network arrangements to be provided that will normally be carried out by SPEN at SPEN’s cost (there may be instance where SPEN agrees with the ICP that they carry out these works)
- Confirm to the control room by submission of a switching schedule.
- Complete the works on the day agreed with SPEN
- Record all installed assets as per BUPR-22-015
- Where applicable patch request form to be submitted in the appropriate timescales as per QUAL-12-367
- Agree a date with SPEN’s District connections team for the works to proceed that shall be within 28 Days of receipt of the request
- Confirm to the SPEN’s District connections team that they intend to carry out operational activities under their own DSR’s as per the process detailed in this document.
- At the appropriate time a suitably authorised ICP Senior Authorised Person or a suitably authorised delegated representative shall:
  - formally request and arrange to receive SPEN sub-station and switchgear keys relevant for the planned works;
Switching to reconfigure the network prior to the issue of field control may be required, this shall either be carried out by the Central control engineer (via telecontrol) or by SPEN district staff this activity shall be chargeable.

- formally request and receive SPEN network drawings and cable records applicable to the planned works, or have access to these using GIS.
- formally request a SPEN planned outage to be arranged with a corresponding HV Incident where required;
- ensure any relevant plant and conductor details are provided to SPEN in advance of the planned outage for PowerOn patch creation as per document QUAL-12-367
- consider and suitably prepare to undertake pre and post outage checks as required, e.g. LV phase rotation, voltage, HV phasing and proving parallels in accordance with SPEN Standard Techniques etc.;
- in liaison with SPEN’s Control centre accept Control responsibility for the required and agreed designated HV section;
- prove dead at the point of work and cable spiking. Cable spiking shall only be conducted under the direction of a SPEN Central Control Engineer;
- on completion of the intended works and or testing, e.g. HV testing, LV phase rotation and HV phasing, the ISAP shall contact SPEN’s Control Room, describing fully the works that have been completed, and that testing is complete;
- agree to relinquish Control confirming the state of the network;
- In agreement with SPEN Central Control agree any outstanding HV phasing or paralleling of circuits required.
- On submission of the completion certificate the ISAP shall also attach the completed switching log.
- The ICP shall be responsible for ensuring that all points of isolation that they establish are fitted with a Safety Lock (where facilities exist) and Caution Notice of a type which has been approved by SPEN
- The ICP shall ensure that their staff do not remove or interfere in anyway with any item of plant which is locked off with a Safety Lock and/or Caution Notice.

Isolation and Earthing of the network:

The ISAP must be fully conversant with the type of switchgear involved and type of earthing equipment used within ScottishPower. The ISAP will require access to earthing equipment and must be fully conversant with the quarantine and care of equipment. The ISAP may need to familiarise themselves with the switchgear involved before the day of the shutdown, such as earthing processes and locking mechanisms. The ISAP will provide their own red safety locks, yellow earthing locks, caution notices approved for the SP network etc. SPEN will provide the key safes and keys for loan for the duration of the works. As per OPSAF-04-024

Cable Identification:

It will be the responsibility of the ISAP to identify the HV cable to be worked on. The ISAP must be fully conversant with the use of testing and identification of equipment, cable identifiers, spiking guns. The ISAP shall contact the SPEN control room immediately prior to spiking any cable.

SPEN will provide the test prods specific to that job/switchgear. These will be issued, logged and returned by the allocated SPEN SAP.

Commissioning:

The ISAP will record all stage commissioning results and make them available to the SAP at the time of handover along with any commissioning certificate.
12.3 SPEN responsibilities

12.3.1 Network District staff

Low Voltage

- Asset inspectors to log into Radar to check for any work activity carried out by ICP’s
- Ensure all conditions precedent are met.
- Carry out any inspections as required
- Update ICP of any defects to be resolved
- Liaise with the ICP to ensure closure of any defects
- Check relevant documentation and permissions are available on site

High Voltage

Following contact from an ICP, SPEN shall:

- Agree a date with the ICP for the works to proceed that shall be within 28 Days of receipt of the request.
- Where appropriate, notify the ICP where SPEN requires either stand-by generation or alternative network arrangements to be provided that will normally be carried out by SPEN at SPEN’s cost (there may be instance where SPEN agrees with the ICP that they carry out these works).
- Ensure that any relevant conditions precedent have been met on the Parent Scheme (this is the scheme for which the ICP has applied for design approval and adoption by SPEN for the whole development/project to which these works relate) before agreeing a date for the work. Note: that if conditions precedent are not in place, the works cannot proceed and a date cannot be agreed.
- When agreed, conduct HV switching to set up and restore (normally this will be moving split points before the ICP works commence, proving parallels following completion of the works and returning the SPEN network to normal operation) the HV network as required for the agreed outage under the direction of a SPEN Central Control Engineer working to an Approved SPEN Switching Schedule.
- SPEN SAP shall at a suitable time meet the nominated ICP Senior Authorised Person, (ISAP) or the ICP’s delegated representative to:
  - record, sign and hand over SPEN sub-station and switchgear keys relevant for the planned works;
  - record, sign and hand over the relevant requested SPEN network drawings and cable records applicable to the planned works;
  - discuss, plan and prepare a SPEN planned outage with a corresponding HV Incident where required for the agreed ICP’s works;
  - agree generation and LV backfeeds to be provided where required to minimise impact on SPEN customers;
  - receive any relevant plant and conductor details in advance of the planned outage where required;
  - review and discuss the ICP’s outage request in regard to the scope of their works, considering pre and post outage checks as required, (e.g. LV phase rotation, HV phasing and proving parallels etc. in accordance with SPEN Standard Techniques);
  - on completion of the agreed works, arrange to receive and record receipt of previously issued SPEN sub-station and switchgear keys;
  - on completion of the agreed works, receive signed completion certificate prior to energisation
  - if required, carry out chargeable inspections
12.3.2 Control Centre

High Voltage

Following contact from an ICP, SPEN shall:

- Receive from district in no less than seven days in advance of the planned outage an approved switching schedule and any associated documentation where appropriate;
- Approve the submitted switching schedule agreeing any necessary changes in advance of approval and where necessary provide appropriate contact telephone numbers for the ICP's use;
- Facilitate HV switching, cable spiking and issuing ICP SAP (ISAP) with Field Control as requested;
- Confirm with the ISAP what physical works have been completed, whether the plant and conductors associated with the works are suitably annotated on PowerOn including a reference to an IDNO/private network where required;
- Confirm with the ISAP on completion where necessary that testing, e.g. HV testing, LV phase rotation and HV phasing, is all complete and correct,
- Receive control of the network when relinquished by the ISAP.
- Introduce PowerOn patch / confirm plant positions as required.
- Consider further network paralleling checks or switching to restore the network to normal running.

<table>
<thead>
<tr>
<th>Responsibilities - ICP DSR's</th>
<th>ScottishPower</th>
<th>ICP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Yes</td>
<td>ICP to write schedule for all work under field control</td>
</tr>
<tr>
<td>Network Checks</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Switching Schedule</td>
<td>District staff / Control room responsible for network access switching schedule</td>
<td>ICP to write schedule for all work under field control</td>
</tr>
<tr>
<td>Outage Planning</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Outage Notification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Connection of Generators</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Altering protection settings at primary substation (if req'd)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Isolation</td>
<td>job by job basis</td>
<td>job by job basis</td>
</tr>
<tr>
<td>Earthing</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cable identification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Spiking</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Permit For Work</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sanction for Test</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Provision of HV Diagram</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Access to Cable Records</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Equipment Testing (prior to energisation)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Commissioning (inc. Remote ends)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HV split point moves</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Energisation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Ownership of keys</td>
<td>job by job basis</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Data management

All records will be returned in line with the new connections radar process.
12.5 Network Access

12.5.1 Issue of Keys

Access to the ScottishPower network is limited to the operational authorisation held along with the task required to complete the work. Any ICP requesting HV operational authorisation will only be given the authorisation level relevant to any work they are likely to carry and are accredited for under Lloyds Register NERS.

Substation access will be given on a job by job basis and a permanent set of substation keys will not be issued.

Keys to be issued out by nominated (authorised) person(s), within each district.

Nominated person(s) will:

- Check work is to be undertaken.
- Makes a list of substations to be accessed
- Check ICP personnel has adequate authorisation
- Issue relevant keys
- Record the name of the ICP personnel
- Record the keys to be issued
- Ensure all signatures are accounted.
- Clearly record time and date the keys are to be returned

ICP personnel, will;

- Give 7 days’ notice of request
- Bring photo I.D. (If not known)
- Bring relevant authorisation certificate
- Sign documents with planned return date
- Sign and return keys on planned date
- SPEN will hold a copy of the sheets – a copy will be given to the ICP on request.

12.5.2 Communication

All construction electronic communication will be in line with SPEN document CON-04-005. In tandem with the above process and prior to the commencement of works the ISAP will communicate with the SPEN SAP appointed to the scheme. Both the ISAP and the SAP will arrange a planning meeting of the work package (5 days) prior to the commencement of works to ensure the ISAP is fully conversant with the work involved. Any pre commissioning results will be made available at this point.

All works under the ICP field control shall be recorded on the ICP’s own switching schedule / log. The SPEN Control room shall be updated at the following times.

Issue / transfer / cancellation of field Control
Prior to energising any items of plant
Immediately prior to spiking any cable
Any dangerous or abnormal occurrence.
Following completion of post energising testing, e.g. phasing tests.

When all activities on the switching schedule are complete then the ISAP will liaise with the SAP to handover the network responsibility to SPEN. The SAP will then issue a withdrawal notice and take back the keys.
12.5.3 Hire of SPEN equipment

Unless the ICP can satisfy SPEN that the ICP are using the approved equipment and have a robust test regime in line with SPEN approved procedures, then they will need to have access to our equipment and use SPEN procedures.

This will require a process for delivery and check by an SAP to handover equipment. A charge may have to be identified for use of SAP time and equipment.

Where the ICP requires the use of SPEN equipment, this shall be highlighted as soon as possible and confirmed in the planning meeting.

- Equipment shall be made available the day before the planned works.

Nominated person/s will:

- Check work is to be undertaken.
- Ensure equipment is available 24hrs prior to the work commencing.
- Check ICP personnel has adequate authorisation
- Issue equipment
- Record the name of the ICP personnel
- Record the equipment to be issued
- Ensure all signatures are accounted.
- Clearly record time and date the equipment is to be returned

ICP personnel, will:

- Give notice of request during any prior planning meetings
- Bring photo I.D. (If not known)
- Bring relevant authorisation certificate
- Sign documents with planned return date
- Sign and return equipment, in good order, on planned date.
- SP will hold a copy of the sheets – a copy will be given to the ICP on request.

Any damage or loss of any equipment will be charged to the ICP, along with any costs the may impact SPEN operational activities.
### 13. APPENDIX A – APPLICATION PROCESS

Application process for ICP's to use their own Safety Rules on SPEN Network.

<table>
<thead>
<tr>
<th>ICP</th>
<th>Compliance</th>
<th>SPEN H&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registers interest to SPEN</td>
<td>Completes application and returns with all appropriate information</td>
<td>ELIGIBLE TO CARRY OUT WORK</td>
</tr>
<tr>
<td>Sends appendix 999 and request for further information</td>
<td>Satisfactory completed?</td>
<td>INFORMS ICP OF ACCEPTANCE</td>
</tr>
<tr>
<td>Liaises with ICP to arrange induction</td>
<td>Carries out SPEN induction</td>
<td>Records on database updates ICP and SPEN business</td>
</tr>
<tr>
<td>Sends appendix 999 and request for further information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completes appendix 999 and returns with all appropriate information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfactory completed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liaises with ICP to arrange induction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carries out SPEN induction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informs H&amp;S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informs ICP of acceptance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© SP Power Systems Limited  Page 15 of 19
Appendix B - Process for LV working with ICP own DSR’s

<table>
<thead>
<tr>
<th>ICP</th>
<th>SPEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inform SPEN via daily whereabouts in Radar</td>
<td>Pick up off daily whereabouts</td>
</tr>
<tr>
<td>Inspection Required</td>
<td>No action</td>
</tr>
<tr>
<td>YES</td>
<td>No action</td>
</tr>
<tr>
<td>Inspect site</td>
<td></td>
</tr>
<tr>
<td>Items of Concern found?</td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Resolve Item of Concern</td>
<td>Update radar</td>
</tr>
<tr>
<td>No action</td>
<td></td>
</tr>
<tr>
<td>Update radar</td>
<td>Confirm with site visit</td>
</tr>
<tr>
<td>NO</td>
<td>All OK?</td>
</tr>
<tr>
<td>YES</td>
<td>CLOSE</td>
</tr>
</tbody>
</table>

Complete process in Appendix A
15. APPENDIX C – HV WORKING

Appendix C - HV operations ICP own DSR’s

<table>
<thead>
<tr>
<th>ICP</th>
<th>SPEN Control</th>
<th>District Staff</th>
<th>Data Mgt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At start of job contact district engineer</td>
<td>Liaise whilst Work in Progress</td>
<td>Create patch</td>
</tr>
<tr>
<td></td>
<td>Propose energisation date</td>
<td>Identify network impact – create patch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outage team create incident – letter list</td>
<td>Generators req’d</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organise S/D Switching schedule Transfer of designated network</td>
<td>Obtain letter list</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organise s/d Card customers Create schedule</td>
<td>Inform ICP to confirm dates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approve Schedule</td>
<td>Undertake SPEN switching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Receive field control</td>
<td>Issue ICP field control</td>
<td>Inform control complete</td>
</tr>
<tr>
<td></td>
<td>Complete works liaise with control room</td>
<td>Log updates introduce patch</td>
<td>Witness testing</td>
</tr>
<tr>
<td></td>
<td>Post energisation tests</td>
<td>Receive modified network</td>
<td>Return network to normal</td>
</tr>
</tbody>
</table>
16. APPENDIX D – EXAMPLE CONTROL TRANSFER CARD

Control Transfer Card

Part 1
A. Description of plant / Apparatus to be transferred

B. Limits of Control Transfer

<table>
<thead>
<tr>
<th>Substation</th>
<th>Plant / Apparatus</th>
<th>Operational state of plant / apparatus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transferred from: SPEN Network Control Person
Transferred to: ICP Field Control Person

Signed: ______________________ Date: ____________ Time: ____________

Part 2
A. Field Control Transferred:

The plant / apparatus detailed in section 1A is transferred from

Transferred from: ICP Field Control Person
Transferred to: ICP Field Control Person

Name of SPEN Control person notified of the field control transfer: ______________________
Date: ____________ Time: ____________

Part 3
A. Return of Field Control

The following network changes have undertaken

B. Exceptions for return to normal service

C. Limit of Control

<table>
<thead>
<tr>
<th>Substation</th>
<th>Plant / Apparatus</th>
<th>Operational state of plant / apparatus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transferred from: ICP Field Control Person
Transferred to: SPEN Network Control Person

Signed: ______________________ Date: ____________ Time: ____________

Whilst operating as field control person the ICP (independent connections provider) shall have full responsibilities of the Field Control person as documented in SPEN document. This shall include all legal liability for all work activities during this period - work required on this statement.
17. APPENDIX E - REQUEST BY ICP TO USE THEIR OWN SAFETY RULES ON THE SPEN DISTRIBUTION NETWORK.

Part 1   Company Details

Company Name:  
Trading As:  
Company Address:  

I can confirm that the company named above holds the following scopes within Lloyds Register: -

<table>
<thead>
<tr>
<th>Description of Work to be Carried Out</th>
<th>Circle activity requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Activity</td>
<td>Un-metered ☐</td>
</tr>
<tr>
<td></td>
<td>L.V. ☐</td>
</tr>
<tr>
<td></td>
<td>HV and above ☐</td>
</tr>
<tr>
<td>Operational Activity</td>
<td>L.V ☐</td>
</tr>
<tr>
<td></td>
<td>HV and above ☐</td>
</tr>
</tbody>
</table>

I confirm that all candidates carrying out work have sufficient technical knowledge and/or experience to avoid danger; are conversant with Section 7 of the Health and Safety at Work etc. Act 1974, and the requirements of the Electricity at Work Regulations, 1989; are all over 18 years of age. Our Distributions Safety Rules (DSR’s) and Safety Management System is of an equivalent relevant standard to SPEN’s and aligns to OHSAS 18001 or equivalent.

Please find herewith the following documentation in support of this application: (*Please tick as appropriate) (*mandatory)

- Certificate of Employers*
- Liability Certificate
- Public Liability Insurance* Certificate
- Safety Rules*
- Policies and procedures*
- NERS Certification*
- Relevant other. (SSIP Etc.)

Signed :  
Designation :  
For (Company / Employer) :  
Business Address :  
Post Code:  
Tel. No. :  
Contact Name :  
Mob. No. :  
e-mail Address :  

(All communications will be sent to this contact.)

Part 2   Statement by SPEN Health and Safety representative :

I confirm that the above company has attended a SPEN induction briefing and is registered to use its own Safety Management System and Distribution Safety Rules to carry out the work detailed above on the SP Energy Networks System.

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed</td>
<td>Date</td>
</tr>
</tbody>
</table>