

**1. SCOPE**

This Safety Instruction details the conditions and procedures to be applied to provide operational safety for work or testing in the following situations:

- (a) When **Authorised Persons** work or test on a *Customer's LV or HV* installation;
- (b) When control of **Safety from the System** at the Energy Networks / *Customer* boundary is required;
- (c) When **Authorised Persons** are contracted to control and operate a *Customer's HV* installation.

**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
September 2015	3	Phil Currie	Definitions: <i>Customer added. Customer's Authorised Person</i> changed to make clear that the <i>Customer</i> may fulfil this role. Also reference to Emergency Services. <i>Isolation Certificate</i> use redefined in 12.4.8, 14.2 and 14.3. Definitions added for <i>RISSP</i> and <i>Circuit State Certificate</i> and definition expanded for <i>Apparatus Status Certificate</i> . 11 Objections expanded. 12.3 EN <b>Authorised Persons</b> may operate <i>Customer LV</i> switchgear in certain cases. 12.4.7 added requirement to protect from backfeed, induced or impressed voltage by shorting or earthing. 13.4.6 added reference to applying earth locks. 14.1 clarified decision over usage of <i>RISSP / Apparatus Status Certificate / Circuit State Certificate</i> . 14.1 added guidance for dealing with derelict <i>Customer</i> substations or situations where <i>Customer's Authorised Person</i> cannot be contacted. 14.2 added guidance where <i>Customer's</i> isolation is at <b>LV</b> . 14.3 added guidance where Energy Networks isolate at <b>LV</b> . Appendices: New format for <i>Isolation Certificate</i> and <i>Apparatus Status Certificate</i> .
May 2017	4	John Geddes	Added section 16 for situations where there is contract in place for working on an <i>IDNO</i> .

**3. ISSUE AUTHORITY**

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**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 Energy Networks' Safety Instruction is maintained by EN Document Control and is part of the ScottishPower Safety Rules which is published to the SP Energy Networks Internet site.

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**7. DEFINITIONS**

For the purpose of this document, the following definitions apply:

*Customer:* any person or company taking supply or utilising a connection to the Energy Networks' **System** and this shall include:

- (a) Tariff *Customer*;
- (b) Appointed operator for a supply connection provided at **HV** or **LV**;
- (c) Appointed operator for connected Embedded Generators;
- (d) Appointed operator for other authorised networks (e.g.. *IDNO*, other DNO or National Grid).

*Customer's Authorised Person:* The *Customer's Authorised Person* shall be competent as defined by Regulation 16 of the Electricity at Work Regulations 1989 (EAWR) and shall be authorised by the *Customer* to carry out pertinent duties. In the case of **HV** installations he shall be authorised in writing. Where the *Customer's* premises is not a workplace as governed by the EAWR e.g. domestic premises or shop the *Customer's Authorised Person* may be the *Customer*, or their nominated representative.

In emergency situations the Emergency Services, e.g. Police or Fire Officers may be treated as the *Customer's Authorised Person* for the receipt of *Isolation Certificates* to verify safety precautions have been established at **LV** by Energy Networks.

*Isolation Certificate:* The *Isolation Certificate* is a document used when working within the *Customer's* installation or it may be used at the boundary with a *Customer* where all work and associated safety precautions are established at **LV**. It is used to confirm the precautions which have been taken to achieve safety.

*Apparatus Status Certificate:* This is a document used when working at the control boundary between the *Customer's* installation and the Energy Networks **HV System**. The document is exchanged between authorised representatives on site and is used to confirm the safety precautions which have been taken to achieve safety by either party.

*RISSP:* Record of Inter-System Safety Precautions. This is a document detailed in the GB Grid Code OC8 and the Northern Ireland Interconnector Operating Code 1. It is used when working at the control boundary between the *Customer's* installation and the Energy Networks **HV System**. The document is exchanged between authorised **Control Persons** who are usually based in control rooms remote from site. It is used to confirm the safety precautions which have been taken to achieve safety by either party.

*Circuit State Certificate:* This is a document, which is similar to the *Apparatus Status Certificate*, and is used when working at the control boundary between Network Rail and the Energy Networks **HV System**. The document is exchanged between authorised representatives on site and is used to confirm the safety precautions which have been taken to achieve safety by either party.

*Independent Distribution Network Operator (IDNO):* Electricity network operators that develop, operate and maintain local electricity distribution networks. *IDNO* networks are directly connected to the Distribution Network Operator (DNO) networks or indirectly to the DNO via another *IDNO*.

*IDNO Transfer of Control Document:* Document used to transfer control of an *IDNO's* **HV** and/or **LV** network from an *IDNO* to Energy Networks.

*IDNO Return of Control Document:* Document used to return control of an *IDNO's* **HV** and/or **LV** network from Energy Networks to an *IDNO*.

Terms printed in bold type are as defined in the ScottishPower Safety Rules (Electrical and Mechanical).

## 8. RESPONSIBILITIES

Energy Networks' staff shall resist any harassment by the *Customer* to rush unsafely towards completion of work or testing or to be influenced to attempt work or testing on an unsafe installation.

It is equally important to prevent the *Customer* attempting to carry out work or testing either on his installation, or adjacent to the Energy Networks work/test area when this work or testing may affect the safety of **Authorised Persons** or *Customer's* staff.

The **Senior Authorised Person**, or in the case of **LV** installations the **Authorised Person** in charge of safety, is required to fully understand what the work or testing entails. It is his responsibility to give full details of the work or testing to the **Authorised Person** carrying out that work or testing by the issue of an appropriate instruction.

The **Authorised Person** is required to fully understand what the work or testing entails. It is his responsibility to ensure that the safety precautions to be taken by him before and during the execution of the work or testing are met.

## 9. APPARATUS IDENTIFICATION

**Apparatus** on which work or testing is to be carried out shall be readily identifiable or have fixed to it a means of identification which will remain effective throughout the course of the work or testing.

## 10. DANGERS

The main **Dangers** to **Persons** working or testing at the *Customer's* installation boundary or on a *Customer's* installation are electric shock or burns arising from:

- (i) Lack of adequate information describing the *Customer's* installation;
- (ii) **Persons** working on wrongly identified **Apparatus**;
- (iii) The **Apparatus** becoming **Live** due to incomplete isolation of all sources of supply;
- (iv) The possibility of the **Apparatus** being worked on, or tested, accidentally or inadvertently being made **Live**;
- (v) The possibility when working on or testing **Isolated Apparatus** of inadvertent contact with **Live** conductors within the work or test area.

## 11. OBJECTIONS

When any **Person** receives instructions to which he objects regarding work or testing on, or operation of a *Customer's* installation, he shall report those objections to the **Person** issuing them or to his

immediate supervisor. This **Person** or supervisor will then have the matter investigated, and if necessary referred to a higher authority.

If the **Authorised Person** is not satisfied with the precautions established by the *Customer* he shall not proceed with the intended work or testing. He shall report the matter to his supervisor who shall rectify the issues to the satisfaction of the **Authorised Person** before work or testing continues.

## 12. WORK OR TESTING WITHIN A CUSTOMER'S LOW VOLTAGE INSTALLATION

### 12.1 Principles

The basic principle is that **Live** working is NOT permitted, with a single exception:

Exception: within an *IDNO* network where a contract exists for Energy Networks to control , operate and work or test – the requirements of section 16 shall be followed and **Live** working may be undertaken where justified and in accordance with Energy Networks Safety Rules and procedures. **Normal Energy Networks authorisations shall apply.**

Where **Live** testing or adjustment cannot be avoided, this may be carried out in accordance with sections 12.5 and 12.6.

The following principles shall apply:

- (i) Prior to working or testing, **Authorised Persons** shall be familiar with the *Customer's* electrical installation at the **Location**;
- (ii) Before work or testing commences in a confined space, cable tunnel or culvert, consideration shall be given to PSSI 36;
- (iii) Ensure that the *Customer's* installation is **Isolated**, precautions taken to secure the isolation and **Caution Notices** are fixed at all **Points of Isolation**;
- (iv) Make proper use of **Approved** tools and equipment and examine before use to ensure their condition and suitability;
- (v) Where **Live** conductors are near to the work/test area, take suitable precautions to avoid **Danger** from those conductors;
- (vi) If work or testing is interrupted, confirm that precautions taken to achieve **Safety from the System** are still in force prior to restarting work or testing.

### 12.2 Planning the Work or Testing and Assessing the Risks

Before work or testing commences, all aspects of the work or testing shall be risk assessed to avoid **Danger**. Many accidents are caused by lack of proper planning resulting in dangerous situations arising during the course of the work or testing.

Requests from a *Customer* for work or testing at short notice shall not detract from the need to prepare a detailed plan for that work or testing. Agreement shall be reached with the *Customer's Authorised Person* on the full extent of the work or testing to be carried out, and who is responsible for putting safety precautions into effect.

The following points shall be addressed at an early stage so that all parties have a clear and common understanding:

- (i) **Persons** carrying out the work or testing shall know its full extent and what they are required to do;
- (ii) Agreement shall be reached with the *Customer's Authorised Person* on the safety precautions to be taken;

- (iii) Plans and records shall be available;
- (iv) **Persons** working on or testing the installation shall be suitably authorised to carry out the work or testing which they are to undertake;
- (v) **Persons** operating or working on **Apparatus** shall be familiar with that **Apparatus**;
- (vi) The existence of any generation or alternative supplies shall be established;
- (vii) Identification of all **Points of Isolation** and establishment of locking arrangements shall be implemented;
- (viii) Any specific site rules or procedures operated by the *Customer* shall be notified to **Persons** carrying out work or testing so that those rules and procedures can be followed during the period on the *Customer's* premises;
- (ix) **Persons** working in a *Customer's* premises shall receive the *Customer's* standard induction for working on that site. This shall include emergency procedures for site risks and fire evacuation;
- (x) Adequate working space, access/egress and lighting conditions shall be provided;
- (xi) Any dangerous process carried out by the *Customer* in the vicinity of the work or testing shall be adequately controlled and shall be notified to **Persons** carrying out the work or testing.

### 12.3 Switching

- 12.3.1 Making **Live** or isolating **LV Apparatus** by signal or pre-arranged understanding after an agreed interval of time is forbidden.
- 12.3.2 When working or testing in *Customer's* large-scale industrial or commercial premises, all necessary **Switching** shall be carried out by the *Customer's Authorised Person* and verified by the Energy Networks **Authorised Person**. In the absence of a competent *Customer's Authorised Person* at domestic or small-scale industrial or commercial premises, subject to a satisfactory risk assessment, Energy Networks staff may operate **LV** switchgear.

### 12.4 Procedure

- 12.4.1 The consequence of electric shock or serious burns from short circuit associated with **LV** installations may be serious, or in some circumstances fatal. Before work or testing commences on a *Customer's* installation it shall be **Isolated** and proved to be not **Live** at the point of work by means of an **Approved** voltage indicator. The voltage indicator shall be tested before and after use.
- 12.4.2 Where reasonably practicable, all **Points of Isolation** shall be **Locked**. Where this is not reasonably practicable, the fuses, links or other **Isolating Devices** shall be removed to safe custody. Captive links shall be secured. Where reasonably practicable, insulated shields to prevent re-insertion of fuses or links while work is in progress shall be fitted.
- 12.4.3 The **Keys** for **Safety Locks** shall either be **Locked** in a **Key Safe** or kept in the personal possession of the **Authorised Person** in charge of the work. **Safety Locks** shall not be removed until all work has been completed.
- 12.4.4 **Caution Notices** shall not be removed or fuses or links replaced until all work or testing has been completed or made electrically safe.
- 12.4.5 When work or testing is to be carried out on restricted tariff circuits e.g. Off-Peak, the fuse(s) controlling the circuit(s) or equipment shall be withdrawn. Time switches, thermostats or similar automatic switching devices shall not be used as **Isolating Devices**. When an installation is supplied from both a restricted and unrestricted supply, both supplies shall be **Isolated** before any work or testing is carried out.

- 12.4.6 If work or testing is interrupted, the **Authorised Person** who is to continue the work or testing shall first prove that the installation is not **Live**, at the point of work or testing, by means of an **Approved** voltage indicator. The voltage indicator shall be tested before and after use. He shall also confirm that **Caution Notices** are in place at the **Points of Isolation**, that **Points of Isolation** are secure, and that fuses, links and carriers are in safe custody, preferably in his personal possession.
- 12.4.7 Where there is a potential for the **Isolated Apparatus** to be subject to inadvertent backfeeds, induced voltages or impressed voltages then the conductors shall be shorted and connected to earth before work commences.
- 12.4.8 The **Authorised Person** shall verify the safety precautions established by the *Customer* and if deemed necessary have it confirmed in writing that the precautions will remain in place for the duration of the work. An *Isolation Certificate* may be used for this purpose. If an *Isolation Certificate* is used this requires a **Senior Authorised Person** to be the recipient.
- 12.5 **Assessment of Risk Prior to Testing or Adjustment on Live Apparatus**
- 12.5.1 Before any testing or adjustment is undertaken on **Live Apparatus** a risk assessment shall be carried out. This risk assessment shall be carried out by a **Person** possessing the knowledge and experience required to make that assessment and shall include:
- (i) The need to test or adjust **Live**;
  - (ii) The level of risk;
  - (iii) Additional risks imposed by the specific testing environment.
- 12.5.2 **Live** testing and adjustment shall be carried out in accordance with the Energy Networks **Live Working Manual**.
- 12.5.3 If the testing or adjustment requires the removal of any cover giving access to exposed **Live** equipment, the equipment shall be **Isolated** and the work carried out as detailed in Section 12.4 of this Safety Instruction.

## 12.6 **Testing and Running Adjustments**

When it is unreasonable for the **Apparatus** on which testing or adjustments are to be carried out to be **Isolated**, testing or adjustments may be carried out with the **Apparatus Live** under the following conditions:

- (i) The testing or adjustment shall be carried out by an **Authorised Person** who has received appropriate training;
- (ii) The **Authorised Person** who is to do the testing or adjustment shall first remove any metallic objects that may cause a hazard, e.g. pendants worn on the body, attached to clothing or in pockets;
- (iii) Only **Approved** insulated tools and/or **Approved** test instruments shall be used;
- (iv) Where necessary to reduce **Danger** to the **Authorised Person** undertaking the testing or adjustment or other persons in the vicinity, access to the area shall be controlled by suitable means;
- (v) Before commencing testing or adjustment in ducting, trenches or underground distribution boxes, where the risk assessment indicates a concern, e.g. the presence of gas, reference shall be made to PSSI 36. Where necessary a **Selected Person's** report shall be obtained.

## 12.7 Tools and Equipment

12.7.1 Tools and personal protective equipment, screens, barriers, insulation mats and gloves used to avoid **Danger** shall be of an **Approved** type. All portable electrical tools shall be of an **Approved** type and shall be examined before use.

12.7.2 Portable ladders shall be of an **Approved** type suitable for the **Location** and the work or testing involved. Metal or steel wire reinforced ladders shall not be used.

## 12.8 On Completion of Work or Testing

On completion, the **Person** in charge of the work or testing shall:

- (i) Ensure removal of all tools and equipment from the work/testing **Location**;
- (ii) Reinststate safety barriers and shrouds. Replace and secure all covers and doors to ensure safety;
- (iii) Check to ensure that any temporary connections/disconnections made for the purposes of work or testing have been restored and **Caution Notices** have been removed;
- (iv) Clear and cancel all documents relating to the completed work or testing;
- (v) Confirm with the *Customer's Authorised Person* that the installation can be energised.

## 13. WORK OR TESTING WITHIN A CUSTOMER'S HIGH VOLTAGE INSTALLATION

### 13.1 Principles

The basic principle is that **Live** working is NOT permitted.

The procedure is based on Energy Networks staff adopting the following principles:

- (i) Prior to working or testing be fully familiar with the *Customer's HV* installation and the extent of the work or testing to be carried out. Work or testing shall not commence until sufficient information has been gathered to allow the work or testing to proceed safely;
- (ii) **Switching** to be carried out shall be agreed and planned in advance;
- (iii) **Switching**, including earthing, shall be carried out by the *Customer's Authorised Person*;
- (iv) *Isolation Certificate(s)* shall be used to confirm completion of safety precautions;
- (v) Completion of **Switching** shall be confirmed to the appropriate Energy Networks **Control Person**;
- (vi) **Safety Documents** shall be issued in accordance with ScottishPower Safety Rules and Procedures.

Note: where a contract exists for Energy Networks to work on a temporary basis on an **HV** network belonging to an *IDNO*, refer to section 16.

### 13.2 Planning the Work or Testing and Assessing the Risks

Before work or testing commences all aspects of the work or testing shall be risk assessed to avoid **Danger**. Many accidents are caused by lack of proper planning resulting in dangerous situations arising during the course of the work or testing.

Requests at short notice from a *Customer* for work or testing shall not detract from the need to prepare a detailed plan for that work or testing. Agreement shall be reached with the *Customer's Authorised Person* on the full extent of the work or testing to be carried out and who is responsible for putting safety precautions into effect.



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The following points shall be addressed at an early stage so that all parties have a clear and common understanding:

- (i) **Persons** carrying out the work or testing shall know its full extent and what they are required to do;
- (ii) Agreement shall be reached with the *Customer's Authorised Person* on the safety precautions to be taken;
- (iii) **Persons** working or testing on the installation shall be suitably authorised to carry out the work or testing which they are to undertake;
- (iv) **Persons** working or testing on the installation shall have sufficient knowledge of it to prevent **Danger**;
- (v) **Persons** operating, working or testing on **Apparatus** shall be familiar with that **Apparatus**;
- (vi) The existence of any generation or alternative supplies shall be established;
- (vii) Identification of all **Points of Isolation** and establishment of locking arrangements shall be carried out;
- (viii) Any other site rules or procedures particular to the *Customer* shall be notified to **Persons** carrying out work or testing so that those rules etc. are complied with during the period on the *Customer's* premises;
- (ix) Adequate working space, access/egress and lighting conditions shall be provided;
- (x) Any dangerous process carried out by the *Customer* in the vicinity of the work or testing shall be adequately controlled and shall be notified to **Persons** carrying out the work or testing.

### 13.3 General Requirements

13.3.1 When a *Customer* requests work or testing to be carried out on his installation, he shall provide a detailed description of the nature of the work or testing. He shall also provide a sufficiently detailed operational diagram to allow work or testing to proceed. This diagram shall, where reasonably practicable, be in the hands of the **Control Person** at least 48 hours before work commences.

13.3.2 The **Control Person** shall use this diagram when recording **Switching** on the *Customer's* installation and recording the issue of **Safety Documents** concerned with work or testing on the *Customer's* installation.

### 13.4 Procedure

13.4.1 The *Customer* shall accept this Safety Instruction to cover the work or testing in question and shall nominate the *Customer's Authorised Person* who shall be responsible for operational safety while this work or testing is in hand.

13.4.2 The **Senior Authorised Person** and the *Customer's Authorised Person* shall agree a **Switching** schedule to permit the work to proceed and also agree the details to be included on the *Isolation Certificate* (Appendix 1).

13.4.3 A copy of the agreed **Switching** schedule together with a diagram of the *Customer's* installation pertinent to the isolation and earthing and **Location** of the work or testing shall be sent to the **Control Person**. These documents shall, where reasonably practicable, be in the hands of the **Control Person** at least 48 hours before work or testing commences. The **Control Person** shall verify the accuracy of the **Switching** schedule relevant to the submitted operational diagram and the required work or testing.

13.4.4 The *Customer's Authorised Person* shall carry out the necessary **Switching**, including earthing, where reasonably practicable in the presence of the **Senior Authorised Person**.

The **Senior Authorised Person** shall satisfy himself that the **Switching** complies with the agreed **Switching** schedule.

- 13.4.5 The **Safety Locks** used for locking **Points of Isolation** to be specified on the *Isolation Certificate* shall comply with one of the undernoted conditions:
- (i) If the facilities are available for two sets of padlocks to be fitted, the *Customer's Authorised Person* shall lock off the incoming (**Live**) side. The **Senior Authorised Person**, using an **Approved Safety Lock**, shall subsequently lock off the **Isolated** side;
  - (ii) If only one padlock can be fitted, the **Senior Authorised Person** shall provide the **Safety Lock(s)** which the *Customer's Authorised Person* shall attach to the **Point(s) of Isolation**.
- 13.4.6 The **Safety Locks** used for locking **Earthing Devices** shall be provided by the **Senior Authorised Person** and applied by the *Customer's Authorised Person*.
- 13.4.7 The *Customer's Authorised Person* shall issue an *Isolation Certificate* to the **Senior Authorised Person**.
- 13.4.8 The **Senior Authorised Person** shall confirm that the *Isolation Certificate* details agree with the **Switching** schedule and shall display Energy Networks' **Caution Notices** at the **Point(s) of Isolation**. He shall inform the **Control Person** that the **Switching** has been completed in accordance with the **Switching** schedule and obtain an *Isolation Certificate* number.
- 13.4.9 The *Customer's Authorised Person* shall make himself available at all times while the *Isolation Certificate* is in force.
- 13.4.10 Following the preparation and issue of the appropriate **Safety Documents** in accordance with ScottishPower Safety Rules and Procedures, work or testing can commence on the specified **Isolated** section of the *Customer's* installation.
- 13.4.11 On completion of the work or testing the **Senior Authorised Person** shall cancel the **Safety Documents** issued to Energy Networks' **Authorised Persons**, clear the *Isolation Certificate* and notify the **Control Person**.
- 13.4.12 After the *Customer's Authorised Person* has confirmed that the work or testing is accepted as being complete he shall cancel the *Isolation Certificate*. The Energy Networks **Safety Locks** and **Caution Notices** will be removed by the person who applied them. The **Control Person** shall be informed of the cancellation.
- 13.4.13 The **Senior Authorised Person** shall not become involved in the energising from the *Customer's Apparatus* unless Energy Networks has a contract with the *Customer* which includes operation of the *Customer's Apparatus*.

## 14. CONTROL OF SAFETY FROM THE SYSTEM AT THE ENERGY NETWORKS / CUSTOMER BOUNDARY

### 14.1 General

- 14.1.1 This section details the procedure to be adopted prior to the issue of a **Safety Document** where work or testing of **Apparatus** requires that isolation and/or earthing is carried out by Energy Networks' **Authorised Person(s)** and/or the *Customer's Authorised Person(s)*. For supplies provided at **HV**, and large **LV** supplies, the provisions of the relevant Transmission Code or Distribution Code shall be met, particularly with regard to Site Responsibility Schedules and Operational Diagrams.

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This information shall be permanently displayed on site at joint occupied switchrooms and shall be available to **Control Persons** and Energy Networks' **Authorised Person(s)** before any work or testing is commenced at any control boundary.

- 14.1.2 If work or testing is to be carried out on **HV Apparatus** where there is a boundary between Energy Networks and a *Customer*, and safety precautions are required to be taken on the other's network, before any **Safety Documents** are issued, a declaration of safety precautions shall have been completed by the appropriate party using one of the following procedures:
- (i) A *Customer* who operates a centrally co-ordinated safety system with a recognised **Control Person** shall use either the *RISSP* procedure as defined in MSP 4.5 appendix 10 or an *Apparatus Status Certificate*;
  - (ii) A *Customer* who does not operate a centrally co-ordinated safety system with a recognised **Control Person** shall use either an *Apparatus Status Certificate* or a *Circuit State Certificate* for an interface with Network Rail.
- 14.1.3 Work on the connection at the boundary may be undertaken by either Energy Networks or the *Customer* subject to compliance with site responsibility schedules, operational agreements and appropriate access and supervision arrangements.
- 14.1.4 If work is to take place concurrently by both Energy Networks and a *Customer*, it may be necessary for two *Apparatus Status Certificates* to be issued, one each by Energy Networks and the *Customer*. This will require careful co-ordination between the **Senior Authorised Person** and the *Customer's Authorised Person*.
- 14.1.5 Testing across the boundary shall be undertaken by agreement between the **Senior Authorised Person** and the *Customer's Authorised Person*. Only one Sanction for Test shall be in force on apparatus at any one time and no other Safety Document shall be in force on the same apparatus. Testing across the boundary shall test the minimum of apparatus under the control of the other party. It may be necessary for Energy Networks to provide substation access, supervision (including Standby) and test access facilities to enable the *Customer's Authorised Person* to undertake testing. Likewise it may be necessary for the *Customer* to provide equivalent substation access, supervision and test access facilities for Energy Networks **Authorised Person(s)** to undertake testing.
- 14.1.6 Where all safety precautions at the boundary can be taken on the Energy Networks' **System** it is not necessary to follow this procedure.
- 14.1.7 In situations where the *Customer's Authorised Person* is not available and access cannot be gained to the *Customer's* apparatus, then work on the Energy Networks' **System** may still be carried out providing it can be established that:
- (i) The *Customer* does not have embedded generation;
  - (ii) The *Customer's* supply is not interconnected with another source of supply;
  - (iii) The *Customer* either does not have a standby generator or the generator is connected in such a way that it cannot inadvertently backfeed into the Energy Networks' **System**.

Note: **Drain Earths** are an adequate precaution to protect **Persons** from inadvertent backfeeds.

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- 14.2 **Work or Testing carried out by Energy Networks at the boundary with a Customer either when using an Apparatus Status Certificate at HV, or at LV, where an Isolation Certificate may be used**
- 14.2.1 Where work on, or testing of, **HV Apparatus** is to be carried out by Energy Networks and safety precautions have to be taken by a *Customer*, the *Customer's Authorised Person* shall complete and sign an *Apparatus Status Certificate* (Appendix 2) before a **Safety Document** is issued for the work or testing. The *Apparatus Status Certificate* shall detail the **Location** and purpose of the work or testing and the isolation and/or earthing carried out by the *Customer's Authorised Person*. Part 1A of the *Apparatus Status Certificate* shall be completed before a **Permit for Work** is issued; Part 1B of the *Apparatus Status Certificate* shall be completed before a **Sanction for Test** is issued. The **Control Person** shall provide the number for the *Apparatus Status Certificate*. When it is required to change from a **Permit for Work** to a **Sanction for Test** or vice versa the *Apparatus Status Certificate* shall be cancelled and a new one issued.
- 14.2.2 Where Energy Networks is to work or carry out testing on **LV Apparatus** and isolation is at **HV** on the Energy Networks **System** and at **LV** on the *Customer's* network, the *Customer's Authorised Person* shall carry out all necessary **Switching** on the *Customer's* network to provide isolation. The **Senior Authorised Person** shall verify the isolation and if deemed necessary have it confirmed in writing using an *Isolation Certificate*. Energy Networks' locks and **Caution Notices** shall be used. A **Limited Work Certificate** shall then be issued for the work or testing.
- 14.2.3 Where Energy Networks is to work or carry out testing on **LV Apparatus** and all isolation is at **LV**, **Switching** shall be completed in accordance with section 12.3 above and if deemed necessary shall be confirmed in writing using an *Isolation Certificate*. If an *Isolation Certificate* is used this requires a **Senior Authorised Person** to be the recipient. Energy Networks' locks and **Caution Notices** shall be used.
- 14.3 **Work or Testing carried out by the Customer on the boundary using an Apparatus Status Certificate**
- 14.3.1 Where work on, or testing of, *Customer's HV* equipment is to be carried out by the *Customer's* staff and safety precautions have to be taken by Energy Networks, a **Senior Authorised Person** shall complete and sign an *Apparatus Status Certificate* (Appendix 2). The *Apparatus Status Certificate* shall detail the **Location** and purpose of the work or testing and the isolation and/or earthing carried out by the **Senior Authorised Person**. Part 1A of the *Apparatus Status Certificate* shall be completed before a Permit for Work is issued; Part 1B of the *Apparatus Status Certificate* shall be completed before a Sanction for Test is issued. The **Control Person** shall provide the number for the *Apparatus Status Certificate*. When it is required to change from a Permit for Work to a Sanction for Test or vice versa the *Apparatus Status Certificate* shall be cancelled and a new one issued.
- 14.3.2 Where a *Customer* is to work or carry out testing on **LV** equipment and isolation is required on Energy Networks' **HV System**, a **Senior Authorised Person** shall complete and sign an *Apparatus Status Certificate* (Appendix 2). The *Apparatus Status Certificate* shall detail the **Location** and purpose of the work or testing and the isolation and/or earthing carried out by the **Senior Authorised Person**.
- 14.3.3 Where a *Customer* is to work or carry out testing on **LV Apparatus** and isolation is required on Energy Networks' **LV System**, an **Authorised Person** shall carry out the necessary **Switching** and confirm with the *Customer's Authorised Person* when the **Point(s) of Isolation** have been established. If the *Customer* requires the **Point(s) of Isolation** confirmed in writing a **Senior Authorised Person** shall issue the *Customer's Authorised Person* with an *Isolation Certificate*.

15. **CONTROL AND OPERATION OF CUSTOMER'S HV INSTALLATION BY ENERGY NETWORKS**

15.1 Where Energy Networks has an ongoing contract for continuous control and operation of the *Customer's HV* installation, the *Customer's* installation shall be considered as an extension to the Energy Networks **System**, and the relevant ScottishPower Safety Rules and Procedures shall apply.

Where a contract exists for Energy Networks to work on a temporary basis on an **HV** network belonging to an *IDNO*, refer to section 16.

Such a contract must clearly establish which party has control of the **Point(s) of Isolation** on the *Customer's LV* installation.

15.2 Where work or testing is carried out on the *Customer's HV* installation and the *Customer* has control of the isolation on his **LV** installation, the details of isolation carried out shall be recorded on an *Apparatus Status Certificate* (Appendix 2).

16. **CONTROL, OPERATION AND WORK OR TESTING ON AN IDNO NETWORK AT HV OR LV.**

16.1 Where Energy Networks has a contract for work or testing on an *IDNO* network the control of the *IDNO HV* and **LV** networks can be transferred to Energy Networks. After the formal transfer using an *IDNO Transfer of Control Document* (Appendix 3) has been carried out the *IDNO* network shall be considered as an extension to the Energy Networks **System**, and the relevant ScottishPower Safety Rules, procedures and authorisations shall apply.

16.2 **Live HV Switching** shall not be used to locate a faulty section on an *IDNO* network. Fault location shall be carried out using **Approved** test instruments.

16.3 Prior to the transfer of control all relevant system diagrams, cable records, utility drawings, access permissions, access keys, critical information, telephone number to contact *IDNO*, relating to the requested work shall be provided to Energy Networks. In addition the *IDNO* shall confirm that the maintenance of the **HV** and **LV** apparatus is to a recognised industry standard. The transfer shall not proceed if the *IDNO* does not provide the appropriate information or confirmation.

The *IDNO* control person shall also notify Energy Networks of any suspension of operational practice, operational restrictions, and anomalies with their apparatus.

16.4 After the relevant information has been received the transfer of control can be carried out. An **HV** network shall be transferred between the *IDNO* control person and the Energy Networks **HV** control room **Control Person**, where the transfer includes **HV** and **LV** networks these shall also be transferred between the *IDNO* control person and the Energy Networks **HV** control room **Control Person**. An **LV**-only system shall be transferred between the *IDNO* control person and a suitable Energy Networks **Authorised Person** in charge. The *IDNO* control person shall confirm whether or not any other persons are working on or adjacent to the transferred apparatus.

16.5 No work or testing on, or operation of, the *IDNO* network shall be carried out where the **Authorised Person** is unfamiliar with the apparatus or where the apparatus is in an unsatisfactory condition.

16.6 When work or testing by Energy Networks has ceased all **Persons** working or testing on the *IDNO* network shall be informed and warned not to resume work or testing by the **Authorised Person** in charge. The *IDNO* network shall be returned to the *IDNO* using an *IDNO Return of*

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*Control document* (appendix 4). Once the return is completed the *IDNO* network shall no longer be treated as part of the Energy Networks **System**.

**APPENDIX 1 – ISOLATION CERTIFICATE**

 <b>OR CUSTOMER</b>	<p><b>ISOLATION CERTIFICATE</b></p> <p>THIS IS NOT A PERMIT FOR WORK OR SANCTION FOR TEST</p> <p><small>* Delete when issued by Energy Networks. Delete red type when issued by <i>Customer</i>.</small></p>	<p>IC No.</p>

This certificate shall be used by the *Customer's Authorised Person* to declare isolation / earthing implemented when Energy Networks is to carry out work within the *Customer's* installation. Alternatively, it may be used by an Energy Networks **Senior Authorised Person** to confirm LV isolation implemented on the Energy Networks **System**, for work by the *Customer* on or near his installation.

**1 DECLARATION**

I.....being the **Senior Authorised Person** / *Customer's Authorised Person* \*  
representing **Energy Networks** / the *Customer* viz ..... \*

Address.....

hereby declare that I have personally established the safety precautions detailed below:

**Points at which the System is Isolated** .....

.....

.....

**Caution Notices** have been affixed at all **Points of Isolation**.

**Apparatus Efficiently Earthed at**.....

.....

.....

(For testing purposes, earths may be removed and re-applied by the *Customer's Authorised Person* on request from the **Authorised Person** who has received the **Sanction for Test**).

**Other Precautions** (Warning notices, barriers or other conditions affecting work or testing).....

.....

.....

A system diagram indicating all sources of supply at the time of issue of this certificate is available.

**Description of Apparatus and Work or Testing to be carried out**.....

.....

.....

I hereby declare that the above Safety Precautions will remain unaltered until this certificate is cancelled. I will be available at all times while this certificate is in force. Work or testing will be carried out in accordance with **Customer safety procedures** / ScottishPower Safety Rules and procedures.\*

Signed..... Name (Block letters)..... being a **Senior Authorised Person** / *Customer's Authorised Person*\*  
Time..... Date.....

**2 RECEIPT**

I hereby acknowledge receipt of this certificate. **I accept responsibility for carrying out the work or testing specified on the Apparatus detailed above and that no attempt will be made by me, or by the persons under my control, to interfere with any other Apparatus.** \*

Signed..... Name (Block letters)..... being a **Customer's Authorised Person** / **Senior Authorised Person**\*  
Time..... Date.....



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3 CLEARANCE

I hereby declare that all persons under my charge have been withdrawn and warned that it is no longer safe to work or test on the Apparatus specified. All gear, tools and additional equipment have been removed.

Signed ..... Name (Block letters) ..... being a Customer's Authorised Person / Senior Authorised Person\*

Time..... Date.....

4 CANCELLATION

The above work or testing is accepted as being complete.

Signed ..... Name (Block letters) ..... being a Senior Authorised Person / Customer's Authorised Person\*

Time..... Date.....

\* Delete when issued by Energy Networks. Delete red type when issued by Customer.


OTHER INFORMATION

Operational Emergency Contact Numbers:
O.C.C. Scotland ..... 0141 776 2877
N.M.C. Manweb ..... 0151 609 4999
Customer control room (if applicable)
.....

Other Contact Numbers:
Senior Authorised Person
.....
Customer's Authorised Person
.....



**APPENDIX 2 – APPARATUS STATUS CERTIFICATE**

 <b>OR CUSTOMER</b>	<b>APPARATUS STATUS CERTIFICATE</b> THIS IS NOT A PERMIT FOR WORK OR SANCTION FOR TEST  # Either 1A or 1B to be completed. Enter N/A in section not applicable. * Delete when issued by Energy Networks. Delete red type when issued by Customer.	ASC No.
		<b>Key Safe(s) No(s).</b>

**1 ISSUE** *Customer's Authorised Person /*  
 ISSUED TO ..... **Senior Authorised Person \***

of .....

I hereby certify that at: ..... (Location)

For the purpose of .....

The following safety precautions have been carried out:

**Points of Isolation**.....  
 .....  
 .....

**Points of Earthing**.....  
 .....  
 .....

**Caution Notices** have been affixed at all **Points of Isolation**.

**Other Precautions**.....  
 .....

Issued with the **Consent** of..... *Energy Networks Control Person /*  
*Customer's Authorised Person \**

Time..... Date.....

**1A# (TO BE COMPLETED BEFORE PERMITS FOR WORK ARE ISSUED)**

The safety precautions detailed in Section 1 shall be maintained until this certificate is cancelled and permission is obtained from the **Energy Networks Control Person / Customer Authorised Person\***.

Signed..... Name (Block letters)..... being a **Senior Authorised Person /**  
*Customer's Authorised Person\**

Time..... Date.....

**1B# (TO BE COMPLETED BEFORE A SANCTION FOR TEST IS ISSUED)**

The **Points of Isolation** will not be interfered with but the earth connections and further precautions detailed in Section 1 may be removed temporarily but only at the request of the recipient of the **Sanction for Test** and under the **Personal Supervision** of a **Senior Authorised Person / Customer Authorised Person\***.

Signed..... Name (Block letters)..... being a **Senior Authorised Person /**  
*Customer's Authorised Person\**

Time..... Date.....

**2 RECEIPT**

I hereby acknowledge receipt of this certificate and **Key Safe Key No(s)**.....

Signed..... Name (Block letters)..... being a *Customer's Authorised Person /*  
**Senior Authorised Person\***

Time..... Date.....



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3 RETURN

3A (TO BE COMPLETED ONLY AFTER RELEVANT PERMITS FOR WORK HAVE BEEN CANCELLED)

I hereby declare that it is now safe for this certificate to be cancelled.

Signed ..... being a Customer's Authorised Person / Senior Authorised Person\*

Time..... Date.....

3B (TO BE COMPLETED ONLY AFTER RELEVANT SANCTION FOR TEST HAS BEEN CANCELLED)

Points of earthing and further precautions are as detailed in Section 1 with the following exceptions:

.....
.....
.....

I hereby declare that it is now safe for this certificate to be cancelled.

Signed .....being a Customer's Authorised Person / Senior Authorised Person\*

Time..... Date.....

4 CANCELLATION

I hereby declare that this certificate is now cancelled.

Signed ..... Name (block letters) ..... being a Senior Authorised Person /
Customer's Authorised Person\*

Time..... Date.....

With the Consent of ..... Energy Networks Control Person /
Customer's Authorised Person \*

Time ..... Date.....

# Either 1A or 1B to be completed. Enter N/A in section not applicable.

\* Delete when issued by Energy Networks. Delete red type when issued by Customer.

OTHER INFORMATION

Operational Emergency Contact Numbers:
O.C.C. Scotland ..... 0141 776 2877
N.M.C. Manweb ..... 0151 609 4999
Customer control room (if applicable)
.....

Other Contact Numbers:
Senior Authorised Person
.....
Customer's Authorised Person
.....

**APPENDIX 3 IDNO TRANSFER OF CONTROL DOCUMENT**

Certificate no.  
(SP reference no.)

**SP Energy Networks – IDNO Transfer of Control document**

Where there is a contract in place for Energy Networks to work on an *IDNO* system this certificate records the details of the transfer of control between the *IDNO* and Energy Networks. When the transfer is complete it allows the *IDNO* system to be treated as an extension to the Energy Networks **System** and the relevant ScottishPower Safety Rules and procedures shall apply (refer to OPSAF-10-017 - PSSI 17 section 16).

To be completed after all necessary information has been received from the *IDNO* and prior to transfer of **HV** and/or **LV** apparatus from an *IDNO* for work on their system.

*IDNO* name:.....

**DECLARATION by IDNO Control Person:**

1 Description of *IDNO* system or part of system that is to be transferred (including limit(s) of control)

2. Reason for transfer, work to be done and any limitations

3. The status of the apparatus is as follows:

Include any operational restrictions, limitations or defects.

4. All safety documents relating to the apparatus have been cancelled. All persons working on the system or who may work on the system have been informed of the transfer of control and will be prevented from working on the system. The information pack provided regarding the system is correct and up to date.

**5. TRANSFER OF CONTROL**

Control of the above-mentioned **HV** and/or **LV** apparatus is hereby transferred:

From .....*IDNO* control person

To.....Energy Networks **HV Control Person** or **Authorised Person** for **LV**-only system.

Signed: ..... Time: ..... Date: .....

**6. RECEIPT OF CONTROL**

The apparatus detailed above is now under the control of:

.....Energy Networks **HV Control Person** or **Authorised Person** for **LV**-only system.

**APPENDIX 4 IDNO RETURN OF CONTROL DOCUMENT**

Certificate no. (SP reference no.)
---------------------------------------

**SP Energy Networks – IDNO Return of Control document**

Where there is a contract in place for Energy Networks to work on an *IDNO* system this certificate records the details of the return of control from Energy Networks back to the *IDNO* after work has been completed by Energy Networks. When the return is complete the *IDNO* system shall no longer be treated as an extension to the Energy Networks **System** (refer to OPSAF-10-017 - PSSI 17 section 16).

To be completed after work has ceased and prior to transfer of **HV** and/or **LV** apparatus from Energy Networks back to an *IDNO*.

*IDNO* name:.....

**DECLARATION by Energy Networks Control Person or Authorised Person for LV-only system transfer:**

1 Description of *IDNO* system or part of system that is to be transferred (including limit(s) of control)

--

2. Reason for transfer, work done and any limitations

--

3. The status of the apparatus is as follows:

Include any operational restrictions, limitations, defects,
---

4. All safety documents relating to the apparatus have been cancelled. All persons working on the system or who may work on the system have been informed of the transfer of control and will be prevented from working on the system.

**5. TRANSFER OF CONTROL**

Control of the above-mentioned **HV** and/or **LV** apparatus is hereby transferred:

From ..... Energy Networks **HV Control Person** or **Authorised Person** for **LV-only** system.

To..... *IDNO* control person

Signed: ..... Time: ..... Date: .....

**6. RECEIPT OF CONTROL**

The apparatus detailed above is now under the control of ..... *IDNO* control person