Vodafone Policy Detailed Requirements

Electrical Competency Arrangements

Objectives/Risk: The purpose of this document is to provide guidance for the management of electrical safety by detailing the electrical competency arrangements in place to satisfy Vodafone’s statutory responsibilities under the Electricity at Work Regulations 1989 and other regulations as they may apply.

Scope: The arrangements described in this document must be adopted by all Vodafone employees and suppliers working for or on behalf of Vodafone in the UK, on electrical systems and equipment.

Compliance levels are monitored and reviewed by appropriate governance bodies. Any breach will be treated as a serious offence and may be subject to disciplinary action and/or termination of contract.

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1. Policy principles

The main objectives of this document are to:

- prevent any electrical work being carried out by persons who lack the knowledge and experience necessary to avoid danger
- ensure through selection, training, and instruction, that employees and suppliers working for or on behalf Vodafone in the UK are competent to undertake the electrical work assigned to them
- satisfy Vodafone’s statutory responsibilities under the Electricity at Work Regulations 1989
- ensure adherence with Vodafone Absolute Rules that we;

1.1 Definitions

Key acronyms and terminology used in this document

<table>
<thead>
<tr>
<th>Employees</th>
<th>Any person employed by any Vodafone entity (in which Vodafone Group hold an interest of more than 50%) on either a full time or part time basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers</td>
<td>Any external person or company employed directly or indirectly by Vodafone. This includes vendors, agents, contractors and all their tiered sub-contractors, operating companies, and outsourced partners</td>
</tr>
<tr>
<td>Subject Matter Expert (SME)</td>
<td>An electrically competent person recognised as an authority for the safety, technical standards and quality of electrical installation and maintenance work - typically qualified and experienced to support the highest category of work expected within their function</td>
</tr>
<tr>
<td>Qualified Persons List (QPL)</td>
<td>A record of Vodafone employees who are authorised to perform electrical activities including information about which categories have been approved and relevant training. The QPL is reviewed and maintained by the Electrical Safety Forum</td>
</tr>
<tr>
<td>Electrical Safety Forum (ESF)</td>
<td>A committee of Subject Matter Experts representing their function's Principal Duty Holder to monitor risks and controls relating to electrical works to minimise the risk of harm to people from electrical incidents</td>
</tr>
<tr>
<td>Ordinary Person *</td>
<td>Person who is neither a Skilled Person nor an Instructed Person</td>
</tr>
<tr>
<td>Instructed Person (electrically) *</td>
<td>Person adequately advised or supervised by a Skilled Person to enable that person to perceive risks and to avoid hazards which electricity can create</td>
</tr>
<tr>
<td>Skilled Person (electrically) *</td>
<td>Person who possesses, as appropriate to the nature of the electrical work to be undertaken, adequate education, training, and practical skills, and who is able to perceive risks and avoid hazards which electricity can create</td>
</tr>
</tbody>
</table>

NEVER carry out work on any electrical equipment unless you’re qualified

When working in the proximity of power, WE ALWAYS maintain the required safe distance and use the correct insulated equipment
| **“competent” & “competency”** | A person who possesses sufficient technical knowledge, relevant practical skills, and experience for the nature of the electrical work undertaken and is able at all times to prevent danger and, where appropriate, injury to themselves and others |
| **“Prescribed electrical activities”** | A specific detailed set of procedural documentation for electrical activities to be performed without deviation |
| **Extra Low Voltage (ELV) * ** | Not exceeding 50 V AC or 120 V ripple-free DC, whether between conductors or to earth |
| **Low Voltage (LV) * ** | Exceeding ELV but not exceeding 1000 V AC or 1500 V DC between conductors or 600 V AC or 900V DC between conductors and earth |
| **High Voltage (HV) * ** | Normally exceeding LV |
| **Cable Landing Stations (CLS) ** | Transmission equipment facilities normally located close to the coast to host submarine cable systems |
| **Power Feed Equipment (PFE) ** | Constant current high voltage power system to provide high resilient power to submarine cable systems |

*The term “(electrically)” is assumed to be present where the terms ‘Instructed Person’ or ‘Skilled Person’ are used within this document * as defined in BS7671
1.2 Categories of Electrical Work

A range of categories of electrical activities have been defined in this document, based on levels of risk, to prevent any electrical work being carried out by persons who lack the knowledge and experience necessary to avoid danger.

Within each category, it is expected that competent persons shall possess sufficient technical knowledge, relevant practical skills, and experience for the nature of the electrical work undertaken and is able at all times to prevent danger and, where appropriate, injury to themselves and others by identifying where electrical hazards exist and in what actions to take to avoid such hazards.

As applicable to the work being performed, all competent persons shall also:

- have available suitable PPE
- have available suitable tools and the knowledge of how to use them
- be able to create and manage the necessary permits and other safe systems of work

Summary of Competency Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An Instructed Person carrying out prescribed electrical activities on ELV DC and LV AC systems</td>
</tr>
<tr>
<td>2</td>
<td>A Skilled Person carrying out prescribed electrical activities on ELV DC and LV AC systems</td>
</tr>
<tr>
<td>3A</td>
<td>A Skilled Person carrying out electrical activities on ELV DC battery systems</td>
</tr>
<tr>
<td>3B</td>
<td>A Skilled Person carrying out electrical activities on LV DC battery systems</td>
</tr>
<tr>
<td>4</td>
<td>A Skilled Person carrying out electrical activities on ELV and LV systems including live testing</td>
</tr>
<tr>
<td>5</td>
<td>A Skilled Person carrying out electrical activities on HV systems</td>
</tr>
<tr>
<td>6A</td>
<td>A Skilled Person carrying out prescribed electrical activities on HV and LV PFE at CLS</td>
</tr>
<tr>
<td>6B</td>
<td>A Skilled Person carrying out electrical activities on HV and LV PFE at CLS</td>
</tr>
</tbody>
</table>

1.2.1 Category 1

Category 1 is for an Instructed Person carrying out prescribed electrical activities on ELV DC and LV AC systems.

Category 1 activities shall not include any exposure to live parts unless explicitly detailed for ELV DC below.

A category 1 Instructed Person shall possess sufficient technical knowledge and relevant practical skills, as applicable, to:

- understand method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
- ability to carry out dynamic risk assessments throughout the task
- visual inspection and switching of dedicated equipment supply breakers within equipment cabinets and within distribution boards directly supplying the equipment where: it is safe to do so, the task is specifically documented, and the Instructed Person is formally trained and competent to do so
- replace inverter or rectifier plug and play modules with like-for-like
- replace plug and play breakers and fuses with like-for-like where live parts are not exposed
- terminate and test local power cables (i.e. Anderson, IEC C13, BS 1363, IEC 60309)
• connect (or remove) an ELV DC circuit to an existing protective device in a DB or breaker rail within a cabinet if specifically documented and the Instructed Person is formally trained and competent to do so
• install and test power equipment and distribution within a dead equipment cabinet
• connect/disconnect and test plug/socket arrangements where live parts are not exposed
• visual inspection of battery installations
• replace ELV DC battery blocks with like-for-like if specifically documented and the Instructed Person is formally trained and competent to do so
• measure circuit current at the equipment end using a calibrated clamp meter
• minor equipment repairs limited to replacement of plug-in components such as the lamps, PCBs or fuses in disconnected equipment. Other repairs involving unit or component dismantling may only be included if specifically documented and the Instructed Person is competent to do so. Testing and commissioning of repairs involving unit or component dismantling is included provided that the equipment is fully reassembled, and no live parts are exposed
• perform Portable Appliance Testing (PAT) if specifically documented and the Instructed Person is competent to do so

1.2.2 Category 2

Category 2 is for a Skilled Person carrying out prescribed electrical activities on ELV DC and LV AC systems.

Category 2 activities shall not include any exposure to live parts unless explicitly detailed for ELV DC below.

A category 2 Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills, as applicable, to:

• prepare detailed method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
• connect (or remove) an LV AC circuit to an existing protective device within a PDU or DB where live parts are not exposed
• replace a like for like LV AC or ELV DC protective device where live parts are not exposed
• check test certificates for completeness and anomalies
• check equipment cabinet electrical designs (from others) including the relevant supply circuits for accuracy, safety, and compliance with regulations
• measure circuit current at the source end using a calibrated clamp meter where live parts are not exposed
• visual inspection and resetting of RCD devices and dedicated equipment supply breakers within equipment cabinets and associated distribution boards where: authorised access has been granted, it is safe to do so, the task is specifically documented, and the Skilled Person is formally trained and competent to do so
• specifically identified tasks that may include exposure to live ELV DC parts, pre-approved in writing by the line manager and relevant Principal Duty Holder, where detailed documentation exists, and the Skilled Person is trained and competent to carry out the activity

1.2.3 Category 3A (Work not allowed by Vodafone employees)

Category 3A is for a Skilled Person carrying out electrical activities on ELV DC battery systems.

Category 3A activities shall not include any exposure to LV live parts.

A category 3A Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills, as applicable, to:

• prepare detailed method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
• install, remove and test ELV DC batteries
• replace a ELV DC power plant active component (such as Distribution, Battery Fuse or Low Voltage Disconnect Units)
• perform ELV DC power plant maintenance activities (such as torque settings and thermal imaging)
• install/extend/decommission ELV DC power systems

1.2.4 Category 3B (Work not allowed by Vodafone employees)

Category 3B is for a Skilled Person carrying out electrical activities on LV DC battery systems. Category 3B activities shall not include any exposure to LV AC live parts.

A category 3B Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills, as applicable, to:

• prepare detailed method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
• install, remove, and test LV DC batteries
• replace a LV DC power plant/UPS active component
• perform LV DC power plant/UPS maintenance activities
• install/extend/decommission LV DC or UPS power systems

1.2.5 Category 4

Category 4 is for a Skilled Person carrying out electrical activities on ELV and LV systems including live testing.

A category 4 Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills, as applicable, to:

• prepare and approve detailed method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
• replace an ELV DC protective device where live parts maybe exposed
• power down ELV DC equipment by tripping remote breakers using specialist equipment
• design, select, erect and test new power systems, distribution, and circuits
• perform intrusive fault investigation

1.2.6 Category 5 (Work not allowed by Vodafone employees)

Category 5 is for a Skilled Person carrying out electrical activities on HV systems. A Category 5 Skilled Person shall be an HV certified/approved person or approved HV contractor by the Electricity Supply Authorities.

Category 5 activities shall not include any HV live working. Live working on HV systems is not permitted in any circumstance other than when the works are carried out by the specific Electricity Supply Authority.

A category 5 Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills to:

• prepare detailed method statements applicable to this category covering how the work will be carried out and what measures need to be put in place to reduce the risk
• operate high voltage installations and equipment

1.2.7 Category 6A

Category 6A is for Skilled Persons carrying out prescribed electrical activities and maintenance on HV submarine cable termination Power Feed Equipment located at Cable Landing Stations.

A Category 6A Skilled Person shall be Power Safety Officer (PSO) and/or Terminal Power Safety Officer (TPSO) trained and certified according to Vodafone Submarine Engineering standards and appointed by the Principal Duty Holder.

Category 6A activities shall not include any exposure to HV, LV or ELV live parts. Safe systems of work must ensure submarine cables are powered down and bonded to earth before any works proceed.

A category 6A Skilled Person shall possess sufficient technical knowledge, qualifications, and relevant practical skills to:
• conduct a site-specific risk assessment according to Vodafone procedures
• conduct tasks detailed in the manufacturer’s handbook using the manufacturer’s master operating procedures
• operate and maintain submarine Power Feed Equipment
• act as the Power Feed Safety authority on the Cable Landing Station for the operation, maintenance and repair of submarine cable systems and Power Feed Equipment.

Examples of activities may include:
  o replacement of failed user replaceable units such as power converters or monitor cards
  o working with a cable ship for operations such as cable head open or short circuit.

### 1.2.8 Category 6B

Category 6B is for Skilled Persons carrying out Electrical Safety Forum approved repair Master Operating Procedures (MOPs) for specific marine repair operational activities.

A Category 6B Skilled Person shall be a suitably skilled and experienced Subject Matter Expert and/or Terminal Power Safety Officer (TPSO) trained and certified according to Vodafone Submarine Engineering standards and appointed by the Principal Duty Holder.

Category 6B activities shall not include any exposure to HV, LV or ELV live parts. Safe systems of work must ensure submarine cables are powered down and bonded to earth before any works proceed.

A category 6B Skilled Person shall possess sufficient technical knowledge, qualifications and relevant practical skills to:

• conduct a site-specific risk assessment according to Vodafone procedures
• carry out non-routine activities not listed in the supplier’s handbook using a MOP written by a SME, approved by the Principal Duty Holder and Electrical Safety Forum
• carry out non-routine activities not listed in the manufacturer’s handbook using a MOP written by the manufacturer, approved by the Principal Duty Holder and ESF.

Examples of activities may include:
  o working with a cable ship with failed PFE cable head switch
  o operating the PFE with failed monitoring circuits.

### 2. Policy controls and deliverables required for compliance

The controls and deliverables required for this local policy standard to accomplish compliance are defined in the following sections.

#### 2.1 Assessment

##### 2.1.1 Vodafone Employees Assessment

Vodafone employees shall be authorised by their line manager to perform or instruct electrical activities related to each category based on:

• their formal training and qualifications
• proven experience and overall competency
• technical knowledge of system(s) to be worked on
• ability to recognise and mitigate the risk of hazards of electrical systems

The line manager shall consult with the local Subject Matter Expert(s) to be satisfied about the competency of the employee before issuing authorisation.

Additional written authorisation for named individuals from the function’s Principal Duty Holder is also required for some categories as detailed below.
The line manager shall ensure the employees’ electrical competence and training records are accurately maintained (with support from the local Subject Matter Expert as required).

The line manager shall regularly review the employees’ level of competency, with support from the local Subject Matter Expert as required, considering:

- if the category of electrical work being requested has changed
- how up to date the employees formal training is
- if applicable, when was the last formal independent competency review held
- if there have been any policy, procedure, or system changes recently
- if there have been any unexplained recent electrical incidents involving the employee
- if the employee has raised any concerns about their own electrical competency

### 2.1.2 Suppliers Assessment

Suppliers working for or on behalf of Vodafone in the UK shall be selected to perform electrical activities related to each category or sub-category based on their organisations competency as demonstrated by:

- formal qualifications
- memberships to relevant independent assessment bodies
- review of internal processes and procedures
- independent audit (if applicable)
- experience of the relevant working environments
- technical knowledge of system(s) to be worked on

### 2.2 Training

It is essential that all Vodafone employees and suppliers managing, supervising, or working on electrical equipment have adequate and appropriate training for the category of work for which they are responsible.

In addition to formal electrical training and experience, other training should include the following as appropriate:

- relevant local safety regulations
- electrical safety awareness
- safe working practices
- emergency first aid
- specific local training in the operation, maintenance and testing of equipment to be worked on
- local site safety rules

#### 2.2.1 Vodafone Employees Training

The table below indicates the minimum training expected for Vodafone employees.

Line managers must monitor employees working on electrical systems, to ensure that any need to refresh or extend training is identified and arranged in good time and that the employees’ electrical competence and training records are kept up to date (with support from the local Subject Matter Expert as required).

As indicated in the table below, training must be refreshed within the given time period, or it shall be deemed invalid, and the employee will not be authorised to perform that category of electrical work.

<table>
<thead>
<tr>
<th>Category</th>
<th>Principal Duty Holder approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Required for tasks that may include exposure to live ELV DC parts - valid for a maximum of 12 months</td>
</tr>
<tr>
<td>4</td>
<td>Required - valid for a maximum of 3 years</td>
</tr>
<tr>
<td>6A &amp; 6B</td>
<td>Required - valid for a maximum of 12 months</td>
</tr>
<tr>
<td>Category</td>
<td>Vodafone employee formal training</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------</td>
</tr>
</tbody>
</table>
| 1        | • Electrical Safety Awareness online training module – refreshed every two years  
|          | • Category 1 Electrical training course (provided by PTT) – refreshed every three years plus internal competence check every 12 months  
|          | • City & Guilds Portable Appliance Testing (as appropriate) – refresh not mandated |
| 2        | • All Category 1 training above  
|          | • Latest BS7671 wiring regulations updated within 12 months of each major release or significant amendment update becoming effective for all installation designs  
|          | • City & Guilds Fundamental Inspection, Testing and Initial Verification (level 2) – refresh not mandated  
|          | • Category 2 Electrical training course (provided by PTT) – refreshed every three years |
| 3A/3B    | Work not allowed by Vodafone employees |
| 4        | • All Category 1 and 2 training above  
|          | • City & Guilds Electrical Inspection and Testing (level 3) – refresh not mandated  
|          | • Category 4 Skilled Person confirmed in writing by the function’s Principal Duty Holder – refreshed every three years |
| 5        | Work not allowed by Vodafone employees |
| 6A       | • All Category 1 training above  
|          | • Category 2 Accredited Power Feed Equipment Station Engineers Course  
|          | • Power Feed Equipment Principles (provided by SE) plus internal competence check every 12 months  
|          | • Power Safety Regulations & principles of a Safe System of Work (provided by SE)  
|          | • Manufacturers PFE course Type A and Type B  
|          | • Terminal Power Safety Officer Training (External/Internal) – refreshed every three years plus internal competence check every 12 months  
|          | • Category 6A Skilled Person confirmed in writing by the function’s Principal Duty Holder – refreshed every twelve months |
| 6B       | • All Category 6A training above  
|          | • Category 6B Skilled Person confirmed in writing by the function’s Principal Duty Holder – refreshed every twelve months |
2.2.2 **Suppliers Training and Certification**

The graphic below shows the minimum training and certification expected for suppliers.

- **Supplier to confirm compliance with Electricity at Work Regulations 1989, relevant Safe Contractor accreditation and all other Vodafone onboarding requirements**
- **Individuals qualified to latest BS7671 wiring regulations updated within 12 months of each major release or significant amendment update becoming effective**
- **Individuals completed Vodafone Electrical Contractors Induction Course* (covering Vodafone policy, H&S, legislation, working practices and RAMS requirements)**
  - ELV DC
  - LV AC & DC
  - Member of an approved competent persons electrical scheme (e.g. NICEIC, NAPIT, ELECSA, STROMA)
  - Evidence of individual’s electrical competency as relevant to the task (e.g. employer evidence, training records)
  - Evidence of individual’s competency in relation to the equipment/system to be worked on (e.g. manufacture’s training, previous experience)
  - Detailed risk assessments and method statements (RAMS) specific to the task and other documents required for CDM compliance

*The Vodafone Electrical Contractors Induction Course aims to provide contractors with Vodafone specific information when performing electrical tasks within Vodafone and is an online course which must be completed by all electrical contractors working within Vodafone. Access to the course is either by emailing info@proactivetechnicaltraining.co.uk or booking on direct via Vodafone Electrical Contractors Induction Course - Proactive Technical Training. Access to the course will last 30 days.

2.3 **Safe Systems of Work**

The following sections deal with the principles that underpin the establishment of safe systems of electrical work. Any local work instructions or method statements produced by employees or suppliers shall incorporate the following principles.

2.3.1 **Live Conductors**

The following rules shall always be applied:

- treat all conductors as live, until they have been tested and proved dead using appropriate methods and calibrated tools
- never connect unterminated cables to a point of supply
- always disconnect cables to redundant loads at both the load and the point of supply, disconnect supply end first
• check power supplies for polarity and earth faults before connecting to them
• inspect existing installations adjacent to any new work for the purpose of identifying and isolating any redundant live cables
• use a tested cable locator before drilling or piercing a wall, floor, or ceiling
• as applicable, check the test certificates related to fixed electrical systems and PAT records for portable and transportable equipment before work starts

2.3.2 Dead Working & Isolation

Unless explicitly documented and approved, work on electrical systems or equipment where employees may come into contact with a conductor must be carried out with it powered down (“dead”).

If this cannot be achieved by any reasonable means, where for example, live functional testing must be carried out as part of fault finding or a battery block has to be removed, then this should be documented with the appropriate justification and the category of work adjusted accordingly (along with processes and procedures to avoid danger).

Systems must always be proved dead using appropriate methods and tested tools before work commences. Where systems have been made dead by other persons, a formal handover and permit must be in place before any work starts and proved dead to the person accepting the handover.

Steps must be taken to ensure that electrical systems and equipment remain dead and are not activated during works. Physical means such as a lockout-tagout system should be utilised. However, where this is not possible, alternative means may be employed as identified by a risk assessment and method statement (RAMS) written and reviewed by suitably competent persons.

2.3.3 Live Working

The UK Electricity at Work Act 1989 states that: “No person shall be engaged in any work activity on or near any live conductor (other than one suitably covered with insulating material so as to prevent danger) that danger may arise unless; (a) it is unreasonable in all circumstances for it to be dead; and (b) it is reasonable in all circumstances for the person to be at work on or near it while it is live; and (c) suitable precautions (including where necessary the provision of suitable protective equipment) are taken to prevent injury.”

The general principles therefore followed by Vodafone UK are:

a) For ELV, working on or near live conductors is allowable by suitably competent persons as they are not deemed to give rise to danger providing all suitable precautions have been taken – so changing a DC battery block is allowable for example, provided the person has the necessary training, experience, tools and protective equipment.

b) For voltages above ELV, in general no live working on or near exposed live conductors is allowable. To allow for simple tasks such as replacing a breaker or adding an end circuit, insulated enclosures should be used to ensure no exposure to the live conductors.

Where live functional testing is required and the only method to achieve this is via access to live exposed parts, only specifically trained Category 4 persons with the correct PPE & tools, approved safe systems of live working and RAMS in place would be authorised to perform this task.

Only specifically trained Category 3B persons with the correct PPE & tools, approved safe systems of live working and RAMS in place would be authorised to work with LV DC batteries.

2.3.4 Safe systems of live working

In the event a decision to work live has been taken, a job specific risk assessment and a written method statement shall be prepared and approved by the line manager responsible for the system, to describe a system of work which will avoid injury. For voltages above ELV, written authorisation shall also be provided by the function’s Principal Duty Holder prior to the works taking place, having confirmed compliance with Vodafone Global Policy “S04 Health & Safety – Electrical Safety”.

The elements of the safe system of work shall include:
• an identification of hazards
• an assessment of the risk arising from each individual hazard
• a description of the measures required to minimise risk
• a statement of the sequence of actions to be taken if safety depends on it
• a statement of competence levels required of persons carrying out and in charge of the work, and of those providing safety cover
• details of personal protective equipment, such as gloves and boots, and insulating screens, barriers, and mats to be used
• contingency plans to be adopted in the event of issue, overrun, or changed circumstances

2.3.5 Hazardous areas

Electrically operated equipment may not be used in a hazardous area where one or more of the following may be found unless the particular equipment has been approved in writing by a Skilled Person for use in the specific situation:

• water or extreme humidity
• flammable or explosive atmospheres
• corrosive chemicals

Intrinsically safe equipment must be used where there is the risk of potentially explosive atmospheres through the presence of flammable liquids, vapours, gases, or dust.

On customer premises, equipment may only be used in hazardous areas following approval by the customer's representative.

2.3.6 High risk areas

Visits to high risk sites (particularly HV equipment rooms) for any inspection, cleaning, installation or maintenance work which does not involve the high risk electrical equipment or systems, must be controlled by the person responsible for the site or his nominated deputy. All such visitors must, without exception, be accompanied by a suitably qualified Skilled Person, and the visits must be documented in a register which includes details of:

• visitor's names and signatures
• visit dates and times
• reasons for visits
• accompanying person's name

2.3.7 Electrical connections at a third party location

Prior to connecting equipment to an electrical system on a customer or third party site a check must be made that the point of connection is electrically safe using approved and calibrated testing equipment. Any electrical work at customer sites requiring a competence level greater than the employees (or suppliers) current electrical category, as outlined in this document, must be escalated to the responsible line manager. Any electrical safety issues identified at customer/third party sites must be escalated to the customer and the responsible line manager.

Connection/disconnection of equipment racks or individual units into 230V AC fused spur will normally only be undertaken by the customer or other persons controlling the site who are electrically competent to do so as the supply to the spur will need to be “locked off”.

UK Detailed Requirements or Specialist Guidance

Electrical Competency Arrangements
3. Roles and responsibilities

The parties who have a responsibility in the Policy and in which control and deliverable.

3.1 Principal Duty Holders

The Vodafone UK business has decided not to appoint a single Principal Duty Holder, but a number of Principal Duty Holders representing a number of functions in the business where electrical safety risk is more apparent.

The responsibility of a Principal Duty Holders is to:

- ensure that sufficient budget is available to discharge their duty holder responsibilities within their function
- ensure there are suitably competent Subject Matter Experts within their function
- ensure there are suitably competent employees and suppliers undertaking electrical work
- provide written authorisation for named individuals to operate at categories higher than 2 (see 2.1.1 & 2.2.1)
- ensure there is suitable representation on any associated electrical safety forums
- ensure regular auditing takes place on electrical safety within their function
- authorise any live working above ELV (reference the “Safe systems of live working” section)

3.2 Line Managers

Line managers within Vodafone UK, in addition to their standard Health and Safety responsibilities, also take on ‘Duty Holder’ responsibilities under the Electricity at Work Regulations where any employee or supplier that is directly or indirectly employed by them is requested to perform electrical work.

In these cases, the line manager shall:

- ensure that employees asked to design, plan, install, commission, operate, inspect, instruct others or maintain any electrical systems or equipment are competent to do so
- ensure that suppliers engaged to undertake electrical duties are competent to do so and that their performance is monitored
- monitor employees working on electrical systems, to ensure that any need for additional, refreshment or extension of training is identified and arranged
- ensure the employees’ electrical competence and training records are accurately maintained (with support from the local Subject Matter Expert as required)
- develop and maintain a risk assessment of electrical activities as a part of their departmental risk assessment
- ensure that electrical safety equipment provided for use by their employees is maintained and that periodic checks of proper use are undertaken

3.3 Subject Matter Experts

Subject Matter Experts (SME) are electrically competent persons recognised as an authority for the safety, technical standards and quality of electrical installation and maintenance work. They are typically qualified and/or experienced to support the highest category of work expected within their function.

The SME represents the nominated Principal Duty Holder, supporting line managers to ensure suitably competent employees and suppliers are undertaking electrical work and that any shortfall of competency is being addressed by the line manager.

An SME can request written approval from their line manager for exemption from attending (and refreshing) the Category 1 and 2 Electrical training courses developed by the ESF where the SME can demonstrate the relevant understanding (such as being responsible for the definition, auditing and approval of said courses)
3.4 Suppliers

The following rules will apply whenever suppliers are required to carry out electrical work for, or on behalf of Vodafone in the UK:

- Contract specifications must require suppliers to work in accordance with the standards detailed in this document. A copy shall be sent to the supplier with the official work order.
- Suppliers shall be responsible for ensuring that all their tiered sub-contractors also comply with the standards detailed in this document. They shall detail their procedures for ensuring compliance.
- A site access control arrangement must be set up under which suppliers report their presence on a daily basis.
- Before a supplier commences work, the nominated person managing the contract (or his appointed agent) should liaise with the supplier and the local site maintainers (in the event they are different) to agree a method statement and all safety measures and practices to be adopted.
- Where any danger to be avoided is associated with a system under the control of Vodafone UK, a competent person must issue an appropriate permit to the contractor.
- Suppliers placed in control of systems having any danger to be avoided must ensure the competence of persons controlling the work.
- When an electrical system is handed over to a supplier, the person controlling the work on behalf of the supplier must accept the system through an agreed permit to work process.
- On completion or suspension of work, or at the request of the Vodafone, the supplier must formally return control of any electrical system under the permit to work process to Vodafone.

4. Exceptions

Any exceptions to this policy must be approved in writing by the Electrical Safety Forum prior to any associated works taking place. (Contact HSEHelpline@Vodafone.com)

5. Supporting documents

Supporting documents referenced in this policy:

- Requirements for electrical installations BS 7671 – [https://electrical.theiet.org/](https://electrical.theiet.org/)
- Electricity at Work Regulations 1989 and HSE HSR25 guidance note.
- Vodafone Global Policy “S04 Health & Safety – Electrical Safety”
- Vodafone Electrical Contractors Induction Course - Proactive Technical Training.

6. Document history

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<th>Version</th>
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<th>Changes</th>
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<td>2.1</td>
<td>Jan 2023</td>
<td>Amendments to S 2.2.2 including Vodafone Electrical Contractors Induction Course</td>
<td>None</td>
<td>Alex Clark</td>
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<td>2.0</td>
<td>March 2021</td>
<td>Addition of categories 6A &amp; 6B</td>
<td>None</td>
<td>Alex Clark</td>
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<td>1.3</td>
<td>July 2020</td>
<td>Addition of new absolute rule and Cat1 activities</td>
<td>None</td>
<td>Alex Clark</td>
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<td>1.2</td>
<td>May 2020</td>
<td>Update and clarifications added by members of ESF – Removal of ‘Rack Maintenance’, addition of ‘Cat 2’ course and new absolute rule added.</td>
<td>None</td>
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<td>April 2019</td>
<td>Minor adjustment to Category 1 and added clarity on training</td>
<td>None</td>
<td>Alex Clark</td>
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<td>1.0</td>
<td>Feb 2019</td>
<td>New document – replaced HSE130</td>
<td>None</td>
<td>David Fry</td>
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