

---

STATUTORY INSTRUMENTS

---

**2002 No. 2665**

**The Electricity Safety, Quality and Continuity Regulations 2002**

**PART I**

**INTRODUCTORY**

**Citation, commencement and interpretation**

1.—(1) These Regulations may be cited as the Electricity Safety, Quality and Continuity Regulations 2002 and shall come into force on 31st January 2003.

(2) Any requirement in these Regulations for goods or materials to comply with a specified standard shall be satisfied by compliance with an equivalent standard or code of practice of a national standards or equivalent body of any [<sup>F1</sup>country or territory], in so far as the standard or code of practice in question enables electricity safety, quality or continuity considerations to be met in an equivalent manner.

<sup>F2</sup>(3) .....

(4) Unless the context otherwise requires, any reference in these Regulations to the provision of information “in writing” shall include the provision of such information by electronic mail, facsimile or similar means which are capable of producing a document containing the text of any communication.

(5) In these Regulations, unless the context otherwise requires—

“British Standard Requirements” means the British Standard Requirements for Electrical Installations BS 7671 : [<sup>F3</sup>2008 IEE Wiring Regulations 17th Edition (ISBN 978-0-86341-844-0)];

“conductor” means an electrical conductor arranged to be electrically connected to a network but does not include conductors used or intended to be used solely for the purposes of control, protection or regulation of supply or for communication;

“connected with earth” means connected with earth in such manner as will at all times provide a rapid and safe discharge of energy, and cognate expressions shall be construed accordingly;

“consumer” means any person supplied or entitled to be supplied by a supplier but in regulations 24, 25 and 26 shall not include, in respect of any supply to meet haulage or traction requirements, any person who is an operator of a network within the meaning of Part I of the Railways Act 1993 <sup>M1</sup>[<sup>F4</sup>or an operator of a tramway, a trolley vehicle system or guided transport];

“consumer’s installation” means the electric lines situated upon the consumer’s side of the supply terminals together with any equipment permanently connected or intended to be permanently connected thereto on that side;

“danger” includes danger to health or danger to life or limb from electric shock, burn, injury or mechanical movement to persons, livestock or domestic animals, or from fire or explosion, attendant upon the generation, transmission, transformation, distribution or use of energy;

“distributing main” means a low voltage electric line which connects a distributor’s source of voltage to one or more service lines or directly to a single consumer’s installation;

“distributor” means a person who owns or operates a network, except for a network where that person is an operator of a network within the meaning of Part I of the Railways Act 1993 [<sup>F4</sup>or an operator of a tramway, a trolley vehicle system or guided transport];

“earth” means the general mass of the earth;

“earth electrode” means a conductor or group of conductors in intimate contact with, and providing a connection with, earth;

“electric line” means any line which is used or intended to be used for carrying electricity for any purpose and includes, unless the context otherwise requires—

- (a) any equipment connected to any such line for the purpose of carrying electricity; and
- (b) any wire, cable, tube, pipe, insulator or other similar thing (including its casing or coating) which surrounds or supports, or is associated with, any such line;

“energy” means electrical energy;

“equipment” includes plant, meters, lines, supports, appliances and associated items used or intended to be used for carrying electricity for the purposes of generating, transmitting or distributing energy, or for using or measuring energy;

“generating station” means those parts of any premises which are principally used for the purpose of generating energy;

“generator” means a person who generates electricity at high voltage for the purpose of supplying consumer’s installations via a network;

“high voltage” means any voltage exceeding low voltage;

“insulation” means non-conducting material enclosing or surrounding a conductor or any part thereof and of such quality and thickness as to withstand the operating voltage of the equipment;

“insulator” means a device which supports a live conductor or which electrically separates the upper and lower parts of a stay wire;

“low voltage” means—

- (a) in relation to alternating current, a voltage exceeding 50 volts measured between phase conductors (or between phase conductors and earth), but not exceeding 1000 volts measured between phase conductors (or 600 volts if measured between phase conductors and earth), calculated by taking the square root of the mean of the squares of the instantaneous values of a voltage during a complete cycle; and
- (b) in relation to direct current, a voltage exceeding 120 volts measured between live conductors (or between live conductors and earth), but not exceeding 1500 volts measured between live conductors (or 900 volts if measured between live conductors and earth),

with any variations of voltage allowed by these Regulations;

“metalwork” does not include any electric line or conductor used for earthing purposes;

“meter operator” means a person who installs, maintains or removes metering equipment used for measuring the flow of energy to or from a network at or near the supply terminals;

“network” means an electrical system supplied by one or more sources of voltage and comprising all the conductors and other equipment used to conduct electricity for the purposes of conveying energy from the source or sources of voltage to one or more consumer’s installations, street electrical fixtures, or other networks, but does not include an electrical system which is situated entirely on an offshore installation;

“neutral conductor” means a conductor which is, or is intended to be, connected to the neutral point of an electrical system and intended to contribute to the carrying of energy;

“overhead line” means any electric line which is placed above ground and in the open air;

“phase conductor” means a conductor for the carrying of energy other than a neutral conductor or a protective conductor or a conductor used for earthing purposes;

“protective conductor” means a conductor which is used for protection against electric shock and which connects the exposed conductive parts of equipment with earth;

“service line” means an electric line which connects either a street electrical fixture, or no more than four consumer’s installations in adjacent buildings, to a distributing main;

[<sup>F5</sup>“smart meter communication provider” means a person who holds a licence under section 6(1)(f) of the Electricity Act 1989;]

“street electrical fixture” means a permanent fixture which is or is intended to be connected to a supply of electricity and which is in, on, or is associated with a highway;

“substation” means any premises or part thereof which contain equipment for either transforming or converting energy to or from high voltage (other than transforming or converting solely for the operation of switching devices or instruments) or for switching, controlling or regulating energy at high voltage, but does not include equipment mounted on a support to any overhead line;

“supplier” means a person who contracts to supply electricity to consumers;

“supply” means the supply of electricity;

“supply neutral conductor” means the neutral conductor of a low voltage network which is or is intended to be connected with earth, but does not include any part of the neutral conductor on the consumer’s side of the supply terminals;

“supply terminals” means the ends of the electric lines at which the supply is delivered to a consumer’s installation;

“support” means any structure, pole or other device, in, on, by or from which any electric line is or may be supported, carried or suspended and includes stays and struts, but does not include insulators, their fittings or any building or structure the principal purpose of which is not the support of electric lines or equipment;

“switching device” includes any device which can either make or break a current, or both; <sup>F6</sup>...

[<sup>F7</sup>“tramway”, “trolley vehicle system” and “guided transport” have the same meanings as in section 67(1) of the Transport and Works Act 1992; and]

“underground cable” means any conductor surrounded by insulation which is placed below ground.

(6) In relation to a distributor, generator or meter operator a reference in these Regulations to his network, his overhead line, his substation or his equipment is a reference to a network, an overhead line, a substation or equipment (as the case may be) owned or operated by him.

(7) Words and expressions to which meanings are assigned by these Regulations shall (unless the contrary intention appears) have the same meanings in any document issued by the Secretary of State under these Regulations.

#### Textual Amendments

- F1** Words in reg. 1(2) substituted (31.12.2020) by [The Electricity and Gas etc. \(Amendment etc.\) \(EU Exit\) Regulations 2019](#) (S.I. 2019/530), regs. 1(1), **78(a)**; 2020 c. 1, Sch. 5 para. 1(1)

- F2** Reg. 1(3) omitted (31.12.2020) by virtue of The Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019 (S.I. 2019/530), regs. 1(1), **78(b)**; 2020 c. 1, Sch. 5 para. 1(1)
- F3** Words in reg. 1(5) substituted (6.4.2009) by The Electricity Safety, Quality and Continuity (Amendment) Regulations 2009 (S.I. 2009/639), regs. 1, **2(2)**
- F4** Words in reg. 1(5) inserted (1.10.2006) by The Electricity Safety, Quality and Continuity (Amendment) Regulations 2006 (S.I. 2006/1521), regs. 1(1), **3(a)**
- F5** Words in reg. 1(5) inserted (19.9.2012) by The Electricity and Gas (Smart Meters Licensable Activity) Order 2012 (S.I. 2012/2400), arts. 1, **35(2)**
- F6** Word in reg. 1(5) revoked (1.10.2006) by The Electricity Safety, Quality and Continuity (Amendment) Regulations 2006 (S.I. 2006/1521), regs. 1(1), **3(b)**
- F7** Words in reg. 1(5) inserted (1.10.2006) by The Electricity Safety, Quality and Continuity (Amendment) Regulations 2006 (S.I. 2006/1521), regs. 1(1), **3(b)**

#### Marginal Citations

- M1** 1993 c. 43; see **sections 6(2)** and 83.

### Application of Regulations

2.—(1) Except as provided for in paragraph (2), in so far as these Regulations apply to any generator, distributor, supplier or meter operator, they shall also apply to any agent, contractor or sub-contractor of his acting on his behalf in relation to a matter which is the subject of these Regulations.

(2) Regulations 4, 15, 25, 26, 27, 28, 31 and 32 shall not apply to any agent, contractor or sub-contractor.

(3) Regulation 3(2) shall not apply until, in the case of overhead lines, 5 years, and, in the case of substations, 2 years after the coming into force of these Regulations.

(4) Regulation 7(2) shall not apply to any distributor's fusible cut-out brought into use on or before 31st December 1936, until 10 years after the coming into force of these Regulations.

(5) Regulation 11(c) shall not apply until 2 years after the coming into force of these Regulations.

(6) Paragraphs (2) and (3) of regulation 14 shall not apply to any low voltage underground cable installed on or before the day before the day on which these Regulations come into force.

(7) Regulations 19(2) and 20 shall not apply until 10 years after the coming into force of these Regulations.

[<sup>F8</sup>(7A) Regulation 20A shall not apply until 6 years after the coming into force of these Regulations.]

(8) Where a material alteration is made to any part of a network, the provisions in paragraphs (4) to (7) shall cease to apply to that part of the network from the date of that alteration.

(9) Where any provision of these Regulations does not apply to any network, or part of a network, by virtue of any of the provisions of paragraphs (4) to (7), any equivalent provision which applied to the network, or part of it, as the case may be, immediately before the coming into force of these Regulations by virtue of the Electricity Supply Regulations 1988<sup>M2</sup> including any approval, authority or exemption granted or given under or pursuant to that provision shall apply as if that equivalent provision had been contained in these Regulations.

(10) Where any provision of these Regulations is equivalent to a provision which applied to any network, or part of a network, immediately before the coming into force of these Regulations by virtue of the Electricity Supply Regulations 1988, any approval, authority or exemption granted or given under or pursuant to the latter provision which was in force immediately before the coming into force of these Regulations shall continue in force and shall have effect as if granted or given under or pursuant to the former provision but shall cease to have effect one year after the coming into force of these Regulations.

**Textual Amendments**

**F8** Reg. 2(7A) inserted (1.10.2006) by [The Electricity Safety, Quality and Continuity \(Amendment\) Regulations 2006 \(S.I. 2006/1521\)](#), regs. 1(1), **4(1)**

**Marginal Citations**

**M2** [S.I. 1988/1057](#), amended by [S.I. 1990/390](#), 1992/2961, 1994/533, 1994/3021, 1998/2971.

**General adequacy of electrical equipment**

- 3.—(1) Generators, distributors and meter operators shall ensure that their equipment is—
- (a) sufficient for the purposes for and the circumstances in which it is used; and
  - (b) so constructed, installed, protected (both electrically and mechanically), used and maintained as to prevent danger, interference with or interruption of supply, so far as is reasonably practicable.
- (2) Generators and distributors shall—
- (a) for each of their overhead lines or part thereof and for each of their substations, assess the foreseeable risk of danger from interference, vandalism or unauthorised access, having regard to both the nature of the equipment and use of the surrounding land, and classify the degree of the risk;
  - (b) enter details of the result of the classification of risk in a register or other permanent record kept updated for the purpose; and
  - (c) take measures to safeguard the equipment commensurate with the nature and class of risk to which it gives rise.
- (3) Generators and distributors shall take reasonable steps to ensure that the public are made aware of dangers which may arise from activities carried out in proximity to overhead lines, and to indicate the means by which those dangers may be avoided.
- (4) Generators and distributors shall take precautions to prevent, so far as is reasonably practicable, danger due to the influx of water, or any noxious or explosive liquid or gas, into any enclosed space, arising from the installation or operation of their equipment.

**Duty of co-operation**

4. Generators, distributors, suppliers [<sup>F9</sup>, meter operators and smart meter communication providers] shall—
- (a) disclose such information to each other as might reasonably be required in order to ensure compliance with these Regulations; and
  - (b) otherwise co-operate amongst themselves so far as is necessary in order to ensure compliance with these Regulations.

**Textual Amendments**

**F9** Words in reg. 4 substituted (19.9.2012) by [The Electricity and Gas \(Smart Meters Licensable Activity\) Order 2012 \(S.I. 2012/2400\)](#), arts. 1, **35(3)**

### **Inspection of networks**

5. A generator or distributor shall, so far as is reasonably practicable, inspect his network with sufficient frequency so that he is aware of what action he needs to take so as to ensure compliance with these Regulations and, in the case of his substations and overhead lines, shall maintain for a period of not less than 10 years a record of such an inspection including any recommendations arising therefrom.

## **PART II**

### **PROTECTION AND EARTHING**

#### **Electrical protection**

6. A generator or distributor shall be responsible for the application of such protective devices to his network as will, so far as is reasonably practicable, prevent any current, including any leakage to earth, from flowing in any part of his network for such a period that that part of his network can no longer carry that current without danger.

#### **Continuity of the supply neutral conductor and earthing connections**

7.—(1) A generator or distributor shall, in the design, construction, maintenance or operation of his network, take all reasonable precautions to ensure continuity of the supply neutral conductor.

(2) No generator or distributor shall introduce or retain any protective device in any supply neutral conductor or any earthing connection of a low voltage network which he owns or operates.

#### **General requirements for connection with earth**

8.—(1) A generator or distributor shall ensure that, so far as is reasonably practicable, his network does not become disconnected from earth in the event of any foreseeable current due to a fault.

(2) A generator or distributor shall, in respect of any high voltage network which he owns or operates, ensure that—

- (a) the network is connected with earth at, or as near as is reasonably practicable to, the source of voltage but where there is more than one source of voltage in that network, the connection with earth need only be made at one such point;
- (b) the earth electrodes are designed, installed and used in such a manner so as to prevent danger occurring in any low voltage network as a result of any fault in the high voltage network; and
- (c) where the network is connected with earth through a continuously rated arc suppression coil, an automatic warning is given to the generator or distributor (as the case may be) of any fault which causes the arc suppression coil to operate.

(3) A generator or distributor shall, in respect of any low voltage network which he owns or operates, ensure that—

- (a) the outer conductor of any electric line which has concentric conductors is connected with earth;
- (b) every supply neutral conductor is connected with earth at, or as near as is reasonably practicable to, the source of voltage except that where there is only one point in a network at which consumer's installations are connected to a single source of voltage, that connection may be made at that point, or at another point nearer to the source of voltage; and

- (c) no impedance is inserted in any connection with earth of a low voltage network other than that required for the operation of switching devices or of instruments or equipment for control, telemetry or metering.
- (4) A consumer shall not combine the neutral and protective functions in a single conductor in his consumer's installation.
- (5) Paragraphs (1) to (3) shall not apply to a network which is situated within a generating station if, and only if, adequate alternative arrangements are in place to prevent danger.

### **Protective multiple earthing**

- 9.**—(1) This regulation applies to distributors' low voltage networks in which the neutral and protective functions are combined.
- (2) In addition to the neutral with earth connection required under regulation 8(3)(b) a distributor shall ensure that the supply neutral conductor is connected with earth at—
- (a) a point no closer to the distributor's source of voltage (as measured along the distributing main) than the junction between that distributing main and the service line which is most remote from the source; and
  - (b) such other points as may be necessary to prevent, so far as is reasonably practicable, the risk of danger arising from the supply neutral conductor becoming open circuit.
- (3) Paragraph (2)(a) shall only apply where the supply neutral conductor of the service line referred to in paragraph (2)(a) is connected to the protective conductor of a consumer's installation.
- (4) The distributor shall not connect his combined neutral and protective conductor to any metalwork in a caravan or boat.

### **Earthing of metalwork**

- 10.**—(1) Subject to paragraph (2), and without prejudice to any other requirement as to earthing, a generator, distributor or meter operator, as the case may be, shall ensure that any metalwork enclosing, supporting or otherwise associated with his equipment in a network and which is not intended to serve as a phase conductor is, where necessary to prevent danger, connected with earth.
- (2) Paragraph (1) shall not apply—
- (a) to any metalwork attached to, or forming part of, a wooden pole support, the design and construction of which is such as to prevent, so far as is reasonably practicable, danger within 3 metres of the ground from any failure of insulation or failure of insulators; or
  - (b) to any wall-mounted metal bracket carrying an overhead line not connected with earth, where the line is both supported by an insulator and the part of the line in contact with the insulator is itself surrounded by insulation.

## **PART III**

### **SUBSTATIONS**

### **Substation safety**

- 11.** Every generator and distributor shall, for every substation which he owns or operates—
- (a) enclose the substation where necessary to prevent, so far as is reasonably practicable, danger or unauthorised access;

- (b) enclose any part of the substation, which is open to the air and contains live equipment which is not encased, with a fence or wall not less than 2.4 metres in height to prevent, so far as is reasonably practicable, danger or unauthorised access;
- (c) ensure that, so far as is reasonably practicable, there are at all times displayed—
  - (i) sufficient safety signs which comply with Schedule 1 and which are of such size and placed in such positions as are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances;
  - (ii) a notice which is placed in a conspicuous position and which gives the location or identification of the substation, the name of each generator or distributor who owns or operates the substation equipment making up the substation and the telephone number where a suitably qualified person appointed for this purpose by the generator or distributor will be in constant attendance; and
  - (iii) such other signs, which are of such size and placed in such positions, as are necessary to give due warning of danger having regard to the siting of, the nature of, and the measures taken to ensure the physical security of, the substation equipment;
- and
- (d) take all reasonable precautions to minimise the risk of fire associated with the equipment.

## PART IV

### UNDERGROUND CABLES AND EQUIPMENT

#### **General restriction on the use of underground cables**

**12.** No generator or distributor shall use any of his underground cables and associated equipment (except those in generating stations or substations) which he knows do not comply with regulations 13 and 14.

#### **Protective screens**

**13.—(1)** Underground cables and associated equipment which contain conductors not connected with earth shall be protected in accordance with paragraph (2).

(2) The protection referred to in paragraph (1) shall comprise—

- (a) in respect of joints or terminations of a conductor in a low voltage system, some form of mechanical protection; and
- (b) in respect of any other part of any conductor, an electrically continuous metallic screen connected with earth,

so placed as to ensure that, so far as is reasonably practicable, any tool or device likely to be used in the vicinity will make contact with that protection or screen before it can make contact with any conductors not connected with earth.

#### **Excavations and depth of underground cables**

**14.—(1)** Every underground cable shall be kept at such depth or be otherwise protected so as to avoid, so far as is reasonably practicable, any damage or danger by reason of such uses of the land which can be reasonably expected.

(2) In addition to satisfying the requirements of paragraph (1), an underground cable containing conductors not connected with earth shall be protected, marked or otherwise indicated so as to ensure,



so far as is reasonably practicable, that any person excavating the land above the cable will be given sufficient warning of its presence.

(3) The protection, marking or indication required by paragraph (2) shall be made by placing the cable in a pipe or duct or by overlaying the cable at a suitable distance with protective tiles or warning tape or by the provision of such other protective or warning device, mark or indication, or by a suitable combination of such measures, as will be likely to provide an appropriate warning.

### **Maps of underground networks**

**15.**—(1) This regulation applies in respect of any network or part thereof, owned or operated by a generator or distributor which is below ground on land which is not under his control.

(2) Every generator or distributor shall have and, so far as is reasonably practicable, keep up to date, a map or series of maps indicating the position and depth below surface level of all networks or parts thereof which he owns or operates.

(3) The generator or distributor shall make a copy of the whole or the relevant part of any map prepared or kept for the purposes of paragraph (2) available for inspection by any of—

- (a) the Secretary of State;
- (b) the local planning authority, or, in Scotland, the planning authority, for the area where the network or part thereof is situated; and
- (c) any other person who can show reasonable cause for requiring to inspect any part of the map,

and shall, on request, provide a copy of such map or part of the map.

(4) The generator or distributor may, at his discretion, require payment of a reasonable fee for the inspection or copying of the map or part thereof referred to in paragraph (3).

(5) Any map prepared for the purposes of paragraph (2) may be prepared and kept by electronic means provided that that means has the capability of reproducing such map in printed form.

(6) Nothing in this regulation shall require the inclusion, on a map prepared or kept for the purposes of paragraph (2), of information relating to the position and depth below surface level of networks or parts thereof which were placed below ground before 1st October 1988 where it would not be reasonably practicable to obtain such information.

## **PART V**

### **OVERHEAD LINES**

#### **General restriction on the use of overhead lines**

**16.**—(1) No generator or distributor shall use any of his overhead lines (except those in generating stations and substations) which he knows do not comply with this Part of these Regulations.

(2) No overhead line shall be used for the purpose of supply at a nominal voltage greater than 400,000 volts.

#### **Minimum height of overhead lines, wires and cables**

**17.**—(1) Subject to paragraph (3), the height above ground of any overhead line, at the maximum likely temperature of that line, shall not be less than that specified by paragraph (2).

(2) In relation to an overhead line used, or intended to be used, at a voltage specified in column 1 of Schedule 2 the height referred to in paragraph (1) shall be—

- (a) at any point where that line is over a road accessible to vehicular traffic, the height specified in column 2 of Schedule 2 as appropriate to that voltage; and
  - (b) at any other point, the height specified in column 3 of Schedule 2 as appropriate to that voltage.
- (3) Paragraph (2) does not apply to any section of an overhead line at a point where it is not over a road accessible to vehicular traffic and which—
- (a) is surrounded by insulation; or
  - (b) is not surrounded by insulation but is at least 4.3 metres above ground and connects equipment mounted on a support to any overhead line; or
  - (c) is connected with earth.
- (4) The height above ground of any wire or cable which is attached to a support carrying any overhead line shall not be less than 5.8 metres at any point where it is over a road accessible to vehicular traffic.

### **Position, insulation and protection of overhead lines**

**18.**—(1) Any part of an overhead line which is not connected with earth and which is not ordinarily accessible shall be supported on insulators or surrounded by insulation.

(2) Any part of an overhead line which is not connected with earth and which is ordinarily accessible shall be—

- (a) made dead; or
- (b) so insulated that it is protected, so far as is reasonably practicable, against mechanical damage or interference; or
- (c) adequately protected to prevent danger.

(3) Any person responsible for erecting a building or structure which will cause any part of an overhead line which is not connected with earth to become ordinarily accessible shall give reasonable notice to the generator or distributor who owns or operates the overhead line of his intention to erect that building or structure.

(4) Any bare conductor not connected with earth, which is part of a low voltage overhead line, shall be situated throughout its length directly above a bare conductor which is connected with earth.

(5) No overhead line shall, so far as is reasonably practicable, come so close to any building, tree or structure as to cause danger.

(6) In this regulation the expression “ordinarily accessible” means the overhead line could be reached by hand if any scaffolding, ladder or other construction was erected or placed on, in, against or near to a building or structure.

### **Precautions against access and warnings of dangers**

**19.**—(1) Every support carrying a high voltage overhead line shall, if the circumstances reasonably require, be fitted with devices to prevent, so far as is reasonably practicable, any unauthorised person from reaching a position at which any such line would be a source of danger.

(2) Every support carrying a high voltage overhead line, and every support carrying a low voltage overhead line incorporating bare phase conductors, shall have attached to it sufficient safety signs complying with Schedule 1 of such size and placed in such positions as are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances.

### Fitting of insulators to stay wires

**20.** Every stay wire which forms part of, or is attached to, any support carrying an overhead line incorporating bare phase conductors (except where the support is a lattice steel structure or other structure entirely of metal and connected to earth) shall be fitted with an insulator no part of which shall be less than 3 metres above ground or above the normal height of any such line attached to that support.

## [<sup>F10</sup>PART VA

### AVOIDANCE OF INTERFERENCE WITH OR INTERRUPTION OF SUPPLY CAUSED BY TREES

#### Textual Amendments

**F10** Pt. 5A inserted (1.10.2006) by [The Electricity Safety, Quality and Continuity \(Amendment\) Regulations 2006 \(S.I. 2006/1521\)](#), regs. 1(1), 4(2)

**20A.** A generator or distributor shall, so far as is reasonably practicable, ensure that there is no interference with or interruption of supply caused by an insufficient clearance between any of his overhead lines and a tree or other vegetation.]

## PART VI

### GENERATION

#### Switched alternative sources of energy

**21.** Where a person operates a source of energy as a switched alternative to a distributor's network, he shall ensure that that source of energy cannot operate in parallel with that network and where the source of energy is part of a low voltage consumer's installation, that installation shall comply with British Standard Requirements.

#### Parallel operation

**22.—(1)** Without prejudice to regulation 21, no person shall install or operate a source of energy which may be connected in parallel with a distributor's network unless he—

- (a) has the necessary and appropriate equipment to prevent danger or interference with that network or with the supply to consumers so far as is reasonably practicable;
- (b) has the necessary and appropriate personnel and procedures to prevent danger so far as is reasonably practicable;
- (c) where the source of energy is part of a low voltage consumer's installation, complies with British Standard Requirements; and
- (d) agrees specific requirements with the distributor who owns or operates the network.

(2) Sub-paragraphs (b) and (d) of paragraph (1) shall not apply to a person who installs or operates a source of energy which may be connected in parallel with a distributor's network provided that sub-paragraphs (a) and (c) of paragraph (1) are complied with; and

- (a) the source of energy does not produce an electrical output exceeding 16 amperes per phase at low voltage;

- (b) the source of energy is configured to disconnect itself electrically from the parallel connection when the distributor's equipment disconnects the supply of electricity to the person's installation; and
- (c) the person installing the source of energy ensures that the distributor is advised of the intention to use the source of energy in parallel with the network before, or at the time of, commissioning the source.

## PART VII

### SUPPLIES TO INSTALLATIONS AND TO OTHER NETWORKS

#### **Precautions against supply failure**

**23.**—(1) A distributor shall ensure that his network shall be—

- (a) so arranged; and
- (b) so provided, where necessary, with fuses or automatic switching devices, appropriately located and set,

as to restrict, so far as is reasonably practicable, the number of consumers affected by any fault in his network.

(2) Subject to regulation 29, a distributor shall at all times take all reasonably practicable steps to avoid interruptions of supply resulting from his own acts.

#### **Equipment on a consumer's premises**

**24.**—(1) A distributor or meter operator shall ensure that each item of his equipment which is on a consumer's premises but which is not under the control of the consumer (whether forming part of the consumer's installation or not) is—

- (a) suitable for its purpose;
- (b) installed and, so far as is reasonably practicable, maintained so as to prevent danger; and
- (c) protected by a suitable fusible cut-out or circuit breaker which is situated as close as is reasonably practicable to the supply terminals.

(2) Every circuit breaker or cut-out fuse forming part of the fusible cut-out mentioned in paragraph (1)(c) shall be enclosed in a locked or sealed container as appropriate.

(3) Where they form part of his equipment which is on a consumer's premises but which is not under the control of the consumer, a distributor or meter operator (as appropriate) shall mark permanently, so as clearly to identify the polarity of each of them, the separate conductors of low voltage electric lines which are connected to supply terminals and such markings shall be made at a point which is as close as is practicable to the supply terminals in question.

(4) Unless he can reasonably conclude that it is inappropriate for reasons of safety, a distributor shall, when providing a new connection at low voltage, make available his supply neutral conductor or, if appropriate, the protective conductor of his network for connection to the protective conductor of the consumer's installation.

(5) In this regulation the expression "new connection" means the first electric line, or the replacement of an existing electric line, to one or more consumer's installations.

### **Connections to installations or to other networks**

**25.**—(1) No person shall make or alter a connection from a distributor’s network to a consumer’s installation, a street electrical fixture or to another distributor’s network without that distributor’s consent, unless such consent has been unreasonably withheld.

(2) A distributor shall not give his consent to the making or altering of the connection referred to in paragraph (1), where he has reasonable grounds for believing that—

- (a) the consumer’s installation, street electrical fixture or other distributor’s network fails to comply with British Standard Requirements or these Regulations; or
- (b) the connection itself will not be so constructed, installed, protected and used or arranged for use, so as to prevent as far as is reasonably practicable, danger or interruption of supply.

(3) Any dispute between a person to whom paragraph (1) refers and the distributor, arising from delay in giving or refusal to give the consent required by paragraph (1) by virtue of the provisions of paragraph (2), which cannot be resolved between them may be referred by either of them to the Secretary of State who shall appoint a suitably qualified person to determine the dispute and to order as he thinks fit whether the costs (or any part of them) associated with the determination should be borne by one or other of the parties.

(4) Following the determination by the person appointed by the Secretary of State, the distributor shall grant or withhold the consent required in paragraph (1) as appropriate, subject to any conditions which the person appointed by the Secretary of State may stipulate in his determination.

### **Disconnection of supply, refusal to connect and resolution of disagreements**

**26.**—(1) Where a connection to a distributor’s network has been made, or is proposed, and the distributor is not satisfied that the consumer’s installation or other distributor’s network or street electrical fixture which is or would be connected to his network is or would be so constructed, installed, protected and used or arranged for use so as to prevent, so far as is reasonably practicable, danger or interference with his or any other distributor’s network, or with the supply to any consumer’s installation or street electrical fixture, he may issue a notice in writing to the consumer or other distributor or owner of the street electrical fixture (as the case may be) requiring remedial works to be carried out within such reasonable period as may be specified in the notice.

(2) If the remedial works specified in the notice by the distributor are not carried out by the end of the period specified in the notice the distributor may disconnect or refuse to connect (as the case may be) the supply to the consumer’s installation or other distributor’s network or street electrical fixture, and in such an event the distributor shall by further notice in writing addressed to the consumer or other distributor or owner of the street electrical fixture (as the case may be) set out the reasons for the disconnection or refusal to connect.

(3) A distributor may disconnect the supply to the consumer’s installation or other distributor’s network or street electrical fixture without giving notice as required by paragraph (1) if such disconnection can be justified on grounds of safety, but in such an event the distributor shall by notice in writing addressed to the consumer or other distributor or owner of the street electrical fixture (as the case may be) and served as soon as reasonably practicable after the disconnection, give the reasons for such disconnection and if applicable details of any remedial measures required to be taken by the consumer or other distributor or owner of the street electrical fixture.

(4) The distributor shall connect or restore the supply when the stipulated remedial measures have been taken by the consumer or other distributor or owner of the street electrical fixture (as the case may be) to the reasonable satisfaction of the distributor, or if no remedial measures are required, as soon as is reasonably practicable after the grounds for disconnection have ceased to apply.

(5) Any dispute between the distributor and the consumer or other distributor or owner of the street electrical fixture (as the case may be), over the disconnection of or refusal to connect the

consumer's installation or other distributor's network or street electrical fixture which cannot be resolved between them, may be referred by any of them to the Secretary of State who shall appoint a suitably qualified person to determine the dispute and to order as he thinks fit whether the costs (or any part of them) associated with the determination should be borne by one or other of the parties.

(6) Where a referral is made to the Secretary of State in accordance with paragraph (5) before the expiry of the notice period referred to in paragraph (1), the distributor shall not take any action pursuant to paragraph (2) until the determination of the dispute.

(7) Following the determination by the person appointed by the Secretary of State, the distributor shall maintain, connect, restore or may disconnect the supply as appropriate, subject to any conditions which the person appointed by the Secretary of State may stipulate in his determination.

(8) A copy of this regulation shall be endorsed upon or accompany every notice given by the distributor pursuant to this regulation.

### **Declaration of phases, frequency and voltage at supply terminals**

**27.**—(1) Before commencing a supply to a consumer's installation, or when the existing supply characteristics have been modified, the supplier shall ascertain from the distributor and then declare to the consumer—

- (a) the number of phases;
- (b) the frequency; and
- (c) the voltage,

at which it is proposed to supply electricity and the extent of the permitted variations thereto.

(2) Unless otherwise agreed in writing between the distributor, the supplier and the consumer (and if necessary between the distributor and any other distributor likely to be affected) the frequency declared pursuant to paragraph (1) shall be 50 hertz and the voltage declared in respect of a low voltage supply shall be 230 volts between the phase and neutral conductors at the supply terminals.

(3) For the purposes of this regulation, unless otherwise agreed in writing by those persons specified in paragraph (2), the permitted variations are—

- (a) a variation not exceeding 1 per cent above or below the declared frequency;
- (b) in the case of a low voltage supply, a variation not exceeding 10 per cent above or 6 per cent below the declared voltage at the declared frequency;
- (c) in the case of a high voltage supply operating at a voltage below 132,000 volts, a variation not exceeding 6 per cent above or below the declared voltage at the declared frequency; and
- (d) in the case of a high voltage supply operating at a voltage of 132,000 volts or above, a variation not exceeding 10 per cent above or below the declared voltage at the declared frequency.

(4) The Secretary of State may, following an application by any distributor affected by a declaration made pursuant to paragraph (1), authorise the variation of any of the values or permitted variations contained in a declaration provided that the applicant has previously given notice of his application to such persons and in such terms as the Secretary of State may require.

(5) Where the Secretary of State has authorised a variation under paragraph (4) the distributor shall forthwith serve notice of any such variation on every supplier, other distributor referred to in paragraph (2), and consumer to whom it may apply.

(6) Every distributor shall ensure that, save in exceptional circumstances, the characteristics of the supplies to consumer's installations connected to his network comply with the declarations made under paragraph (1).

(7) The number and rotation of phases in any supply shall not be varied by the distributor except with the agreement of the consumer or, in the absence of such agreement, the consent of the Secretary of State who may impose such conditions, if any, as she thinks appropriate.

#### **Information to be provided on request**

**28.** A distributor shall provide, in respect of any existing or proposed consumer's installation which is connected or is to be connected to his network, to any person who can show a reasonable cause for requiring the information, a written statement of—

- (a) the maximum prospective short circuit current at the supply terminals;
- (b) for low voltage connections, the maximum earth loop impedance of the earth fault path outside the installation;
- (c) the type and rating of the distributor's protective device or devices nearest to the supply terminals;
- (d) the type of earthing system applicable to the connection; and
- (e) the information specified in regulation 27(1),

which apply, or will apply, to that installation.

#### **Discontinuation of supplies**

**29.—(1)** Subject to paragraph (2), a distributor may discontinue a supply for the purposes of testing or for any other purpose connected with the carrying on of his activities.

(2) A distributor may discontinue a supply pursuant to paragraph (1) only—

- (a) for such period as may be necessary but no longer; and
- (b) subject to paragraph (3), if not less than 2 days notice in writing has been received by the relevant persons.

(3) A distributor may discontinue a supply even if the notice required by paragraph (2)(b) has not been received by the relevant persons if—

- (a) the discontinuation is agreed between the relevant persons and the distributor; or
- (b) the distributor considers it necessary to discontinue supplies to the relevant persons in order to prevent danger or to undertake essential emergency repairs; or
- (c) if there is an urgent need to discontinue the supply relating to the safe or proper operation of the network; or
- (d) the notice is not received by the relevant persons due to circumstances not within the control of the distributor.

(4) In this regulation the expression "relevant persons" means every consumer likely to be affected by a discontinuation of supply by a distributor and every other distributor likely to be affected by that discontinuation.

## **PART VIII**

### **MISCELLANEOUS**

#### **Inspections, etc. for the Secretary of State**

**30.—(1)** A generator or distributor whose equipment is subject to inspection, test or examination for the purpose of ascertaining whether a breach of these Regulations may have occurred, by an

inspector appointed under section 30 of the Electricity Act 1989, shall afford reasonable facilities therefor.

(2) A generator or distributor shall provide such information to the inspector as he may require for the purposes of performing his functions under this regulation.

### **Notification of specified events**

**31.**—(1) Notice shall be given to the Secretary of State in accordance with this regulation by the distributor in respect of any event which is of a type specified in paragraph (2)(b) where the event involves a consumer's installation which is connected to the distributor's network and by the generator, distributor or meter operator, as the case may be, in respect of any event which is an event of a type otherwise specified in paragraph (2) and involves a network or equipment which is in the ownership of, under the control of, or used by, the generator, distributor or meter operator, as the case may be.

(2) The events referred to in paragraph (1) are—

- (a) any event attributable in whole or in part to the generating, transforming, control or carrying of energy up to and including the supply terminals, which has given rise to—
  - (i) the death of any person other than a person engaged by the generator, distributor or meter operator for the purposes of his business; or
  - (ii) an injury (including any electric shock) to any person other than a person engaged by the generator, distributor or meter operator for the purposes of his business; or
  - (iii) any fire; or
  - (iv) any explosion or implosion;
- (b) any event attributable in whole or in part to the presence of energy on the consumer's side of the supply terminals on any non-industrial and non-commercial premises resulting in the death of any person;
- (c) any event, whether or not accompanied by an event specified in sub-paragraph (a), which caused an overhead line to be at a height less than that required by regulation 17(2);
- (d) the occurrence of any damage to any underground cable resulting from an event not specified in sub-paragraphs (a) and (b); and
- (e) any event other than those listed in sub-paragraph (a), (c) or (d) which, taking into account the circumstances of that event, was likely to cause any of the events listed in sub-paragraph (a).

(3) In respect of any event specified in paragraph (2)(a)—

- (a) the requirement to give notice in accordance with paragraph (4) (so far as applicable) applies in addition to the requirement to give notice in accordance with paragraph (5) unless the notice given satisfies the requirements of both paragraphs; and
- (b) the requirement to give notice in accordance with paragraphs (4) and (5) applies in addition to the requirement to give notice in accordance with paragraph (6).

(4) In respect of any event specified in paragraph (2)(a)(i) or (in the case of a serious injury) in paragraph (2)(a)(ii), notice of the event shall be given to the Secretary of State by telephone or other immediate means of communication immediately after the event becomes known to the generator, distributor or meter operator, as the case may be.

(5) In respect of any event specified in paragraph (2)(a) or (2)(b), notice containing the relevant particulars shall, subject to paragraph (8), as soon as possible after the event becomes known to the generator, distributor or meter operator, as the case may be, be given to the Secretary of State in writing by the quickest practicable means.



(6) In respect of any event notifiable under paragraph (2)(a), (2)(c) or (2)(e), notice shall be given to the Secretary of State by post within 15 days of the end of the month in which the event becomes known to the generator, distributor or meter operator as the case may be, in the form of a computer disc which—

- (a) conforms to the description specified in the Department’s publication; and
- (b) subject to paragraph (8), contains the information comprising the relevant particulars, arranged in a form which complies with the technical requirements specified in that publication.

(7) In respect of any event specified in paragraph (2)(d), notice containing the relevant particulars shall be sent to the Secretary of State by means of a return in writing to be submitted within one month of the end of the period of 3 months ending on 31st March, 30th June, 30th September or 31st December (as the case may be) in which the event became known to the generator, distributor or meter operator as the case may be.

(8) The notices required by paragraphs (5) and (6) shall, where the giver of the notice is unable to provide full particulars, contain such of the relevant particulars as are available to the giver of the notice at the time of giving it, and the remaining particulars shall be supplied to the Secretary of State in writing by the quickest practicable means immediately after they have become known.

(9) In this regulation—

“the Department’s publication” means the publication entitled (under the heading “ELECTRICITY SAFETY, QUALITY AND CONTINUITY REGULATIONS 2002”) “COMPUTERISATION OF THE NOTIFICATION OF CERTAIN SPECIFIED EVENTS UNDER REGULATION 31”, subtitled “SPECIFICATION OF THE DATA FILES”, and published in September 2002 by the Department of Trade and Industry, a copy of which was certified as such by the signature of the Minister of State for Energy and Construction, Department of Trade and Industry;

“event” means any event of the kind specified irrespective of whether it was accidental;

“relevant particulars” means—

- (i) in respect of an event specified in paragraph (2)(a), (2)(b) or (2)(d), the particulars specified in Parts I, II and IV, respectively, of Schedule 3; and
- (ii) in respect of an event specified in paragraph (2)(c) or (2)(e), the particulars specified in Part III of Schedule 3; and

“serious injury” means any injury which results in the person injured being admitted into hospital as an in-patient.

### **Notification of certain interruptions of supply**

**32.**—(1) A distributor shall give to the Secretary of State notification in accordance with paragraph (2) of those interruptions of supply involving his network where there has been—

- (a) any single interruption of supply, to any demand of 20 megawatts or more at the time of the interruption, for a period of three minutes or longer; or
- (b) any single interruption of supply, to any demand of 5 megawatts or more at the time of the interruption, for a period of one hour or longer; or
- (c) any single interruption of supply to 5,000 or more consumer’s installations for a period of one hour or longer.

(2) The notification shall—

- (a) be sent in writing by the quickest practicable means immediately after the distributor becomes aware of the interruption; and

(b) contain the particulars specified in Schedule 4.

(3) The notification given to the Secretary of State shall, where the distributor is unable to give the full particulars required by Schedule 4, contain such of the particulars as are available to the distributor at the time of giving the notification, and any remaining particulars shall be sent in a supplementary notification in writing to the Secretary of State by the quickest practicable means immediately after they have become known.

### **Exemption from requirements of Regulations**

**33.**—(1) Where a request is made to the Secretary of State to grant an exemption from a requirement of these Regulations, that request shall be made in writing and shall state the full extent of the reasons for the exemption sought.

(2) Where the Secretary of State is satisfied that an exemption may be granted without prejudice to safety or interference with the supply to others, the Secretary of State may grant such an exemption as she thinks appropriate.

(3) An exemption granted under this regulation shall be for such period as the Secretary of State shall specify when granting that exemption or, where no period is so specified, for a period of 25 years.

### **Networks, equipment or installations in breach of Regulations**

**34.**—(1) Paragraphs (2) to (10) shall apply in any case where the Secretary of State is satisfied that—

- (a) any network or any part thereof, or any equipment which is constructed, placed, erected, maintained, or used otherwise than in accordance with these Regulations; or
- (b) any part of a consumer's installation which is not enclosed in a building; or
- (c) any network or any part thereof, any part of a consumer's installation which is not enclosed in a building or any equipment which is in breach of any relevant exemption or other relevant provision made under these Regulations in force at the time when the notice referred to in paragraph (2) is served,

is or is liable to become—

- (i) a source of danger to others; or
- (ii) an interference with a supply to others; or
- (iii) a cause of interruption of a supply to others.

(2) The Secretary of State may serve notice on the generator, distributor, meter operator or consumer (as the case may be) specifying the matter of which she is satisfied and require that the network, consumer's installation, or the equipment or the part thereof specified in the notice—

- (a) shall not be used; or
- (b) shall be made dead; or
- (c) shall be removed; or
- (d) shall only be used subject to compliance with such conditions, improvements or modifications as that notice shall specify,

within the time specified in that notice and the person on whom that notice is served shall comply with the provisions of that notice.

(3) Where such a notice has required that any network, consumer's installation, equipment or the part thereof specified in the notice shall not be used or shall be made dead or shall be removed or only used subject to compliance with conditions, improvements or modifications, that notice

shall remain in effect until such time as the network, consumer's installation, equipment or the part thereof specified in the notice shall comply with these Regulations or until the Secretary of State shall withdraw the notice.

(4) If, within the period specified by that notice for compliance or such longer period as the Secretary of State may allow, the person on whom the notice is served disputes the basis for, or the requirements of, the notice, he may give notice in writing to the Secretary of State of that dispute and shall state the grounds.

(5) Where a notice is given to the Secretary of State pursuant to paragraph (4), the Secretary of State shall refer the dispute to an independent person agreed between the Secretary of State and the person giving the notice, or in default of agreement, to a person nominated by the President for the time being of The Institution of Electrical Engineers.

(6) The person to whom a dispute is referred may decide—

(a) to uphold the notice served under paragraph (2); or

(b) to recommend to the Secretary of State that the notice be withdrawn or modified; and

shall notify his decision in writing to the Secretary of State and to the person who has given notice under paragraph (4).

(7) The person to whom a dispute is referred may and, if so requested by any party to the dispute, shall—

(a) give the parties to the dispute an opportunity of appearing before and being heard by him; and

(b) make an inspection of the network, consumer's installation, or equipment which is the subject of the dispute.

(8) Where it appears to the person to whom a dispute is referred that any other person, not being a party to the dispute, has an interest in the outcome of that dispute, he may at his discretion treat that other person as if he were a party to the dispute.

(9) The person to whom a dispute is referred shall, having deliberated upon the dispute, make a direction as to whether the person giving the notice under paragraph (4) shall bear the costs of the reference (including any fees or expenses payable to him) or whether those costs shall be borne by the Secretary of State.

(10) A copy of this regulation shall be endorsed upon or accompany every notice served by the Secretary of State pursuant to this regulation.

## **Offences**

**35.** Any generator, distributor, supplier, or meter operator or any agent, contractor or sub-contractor of any of the foregoing who fails to comply with any provision of these Regulations which applies to him, any person who fails to comply with regulation 18(3), 21, 22 or 25(1) and any consumer who fails to comply with regulation 8(4) or 34(2) shall be liable on summary conviction to a fine not exceeding level 5 on the standard scale.

## **Revocation**

**36.** The Regulations set out in Schedule 5 are hereby revoked.

*Brian Wilson,*  
Minister of State for Energy and Construction,  
Department of Trade and Industry

**Changes to legislation:**

There are currently no known outstanding effects for the The Electricity Safety, Quality and Continuity Regulations 2002.