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EXTRAORDINARY

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PART I : SECTION (I) — GENERAL
Government Notifications

REGULATIONS MADE UNDER SECTION 54 OF THE SRI LANKA ELECTRICITY ACT, No. 20 OF 2009

BY virtue of the powers vested in me by Section 54 of the Sri Lanka Electricity Act, No. 20 of 2009, and on the recommendation of the Public Utilities Commission of Sri Lanka, I, Ranjith Siyambalapitiya, the Minister of Power and Renewable Energy, do by this order make the undermentioned Regulations on Electricity (Safety, Quality and continuity) Standards.

RANJITH SIYAMBALAPITIYA,
Minister of Power and Renewable Energy.

13th July 2016.

L.D.B 3/2009.

Sri Lanka Electricity Act, No. 20 of 2009

REGULATIONS made by the Minister of Power and Renewable Energy on the recommendation of the Public Utilities Commission of Sri Lanka, under section 54 of the Sri Lanka Electricity Act, No. 20 of 2009 read with section 56 of the aforesaid Act.

Regulations

1. These regulations may be cited as the Electricity (Safety, Quality and Continuity) Regulations No. of 2016.



2. In these regulations –

- (a) any requirement for goods or materials to comply with a specified standard shall be satisfied by compliance with an equivalent standard or Code of Practice of the Sri Lanka Standard Institute (SLSI) or International Electrotechnical Commission (IEC), 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.
- (b) a reference to a Relevant Persons network, their Overhead Line, their substation or their equipment is a reference to a network, an Overhead Line, a substation or equipment owned or operated by them.

3. These regulations shall apply to Relevant Persons and to any of their agents, contractors or sub-contractors:

Provided however, regulations 10, 26, 27, 47, 50, 59, 64 and 67 shall not apply to any agent, contractor or sub-contractor.

4. In the generation, transmission, distribution, supply and use of electricity all relevant persons shall take all reasonable steps to -

- (a) protect the public from dangers arising from the generation, transmission, distribution, supply and use of electricity from any electric line or electrical plant,
- (b) eliminate or reduce the risks of personal injury or damage to property or interference with its use resulting from the transmission, distribution and supply of electricity, and
- (c) comply with all supply and safety standards, contained in the Distribution Code, the Grid Code and Associated Technical and Safety Standards, as applicable to relevant persons.

5. Relevant persons shall in supplying electricity and providing electricity supply services, ensure that their Equipments are -

- (a) sufficient for the purposes and the circumstances for which it is used; and
- (b) constructed, installed, protected, used and maintained as to prevent danger, interference with or interruption of supply, so far as is reasonably practicable.

6. Relevant persons 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 unauthorized 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.

7. Relevant persons shall take reasonable steps to ensure that the public are made aware of the 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.

8. Relevant persons shall take all precautions to prevent, so far as is reasonably practicable, dangers 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.

9. The quality of all materials used for buildings and other structures and for the construction of all equipment, apparatus and the electric lines shall, except where otherwise specified in these regulations be in accordance with the standards prescribed in the appropriate specification of the Sri Lanka Standards Institute (SLSI) or of the International Electrotechnical Commission (IEC).

10. Relevant Persons shall disclose such information and act in co-operation with each other as may reasonably be required in order to ensure effective compliance in the implementation of these regulations.

11. Relevant Persons shall so far as it is reasonably practicable, inspect their network with sufficient frequency, so that they are aware of what action they need to take to ensure compliance with these regulations and in the case of their substations and overhead lines maintain a record of such inspections for a period of not less than ten (10) years including any recommendations incidental thereto.

12. Relevant Persons shall apply such protective devices to their Networks as far as is reasonably practicable to prevent any current, including any leakage to earth from flowing in any part of their network for such a period that such part of their network can no longer carry that current without danger.

13. Relevant Persons shall -

- (a) in the design, construction, maintenance or operation of his network, take all reasonable precautions to ensure continuity of the Supply Neutral Conductor; and
- (b) not 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.

14. Relevant persons shall, ensure that their network do not become disconnected from earth in the event of any foreseeable current which may occur due to a fault.

15. Relevant persons shall, in respect of any high voltage or medium voltage network which such persons own or operate, 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 accordance with the stipulations of the Grid Code, the Distribution Code or Associated Technical and Safety Standards, as applicable to each of the relevant persons, 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 relevant persons, of any fault which causes the arc suppression coil to operate.

16. Relevant persons shall, in respect of any low voltage network which they own or operate, 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.

17. A consumer shall not combine the neutral and protective functions in a single conductor in his Consumer's Installation.

18. Regulations 14, 15 and 16 shall not apply to electric lines and electric plants which are situated within a generation station if adequate alternative arrangements are in place to prevent danger.

19. (1) Relevant Persons without prejudice to any other requirement as to earthing shall ensure that any metalwork enclosing, supporting or otherwise associated with their equipment in a network and which is not intended to serve as a phase conductor, where necessary is connected with Earth in order to prevent any danger.

(2) The provisions of regulation 19 (1) shall not apply -

- (a) to any metalwork attached to or forming part of a wooden or concrete pole support, the design and construction of which is such as to prevent, so far as is reasonably practicable, danger within three (3) meters of the ground from any failure of insulation or failure of insulators;
- (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; and
- (c) to any pole mounted at substations at heights three (3) meters above the ground.

20. Relevant persons shall, in respect of every substation which they own or operate-

- (a) (i) enclose such substation where necessary, to prevent danger or unauthorized access;
- (ii) enclose any part of such substation, which is open to the air and contains live equipment which is not encased, with a fence or wall not less than two point four (2.4) meters in height to prevent, danger or unauthorized access, in accordance with the provisions of the Grid Code, the Distribution Code and Associated Technical and Safety Standards as applicable to each of the Relevant persons;
- (b) ensure that there are at all times displayed, -
 - (i) sufficient safety signs which are of such size and are placed in such positions as shown in Schedule I hereto and are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances;
 - (ii) a notice in a conspicuous position, which gives the location or identification of the substation, the name of each relevant person who owns or operates the substation, equipments making up the substation and the telephone number where a suitably qualified person appointed for this purpose by such relevant person to 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

(c) take all reasonable precautions to minimize the risk of fire associated with the equipment.

21. Relevant persons shall not use any of their underground cables and associated equipment (except those in Generating Plants or Substations) which do not comply with regulations 22 and 23.

22. Underground cables and associated equipment which contain conductors not connected with earth shall -

(a) in respect of joints or terminations of a conductor in a low voltage system, have some form of mechanical protection ; and

(b) in respect of any other part of any conductor, have an electrically continuous metallic screen connected with earth,

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

23. Every underground cable shall be kept at such depth or be otherwise protected so as to avoid any damage or danger by reason of such uses of the land which can be reasonably expected under a given situation.

24. Underground cables containing conductors not connected with earth shall be protected, marked or otherwise indicated so as to ensure, that any person excavating the land above the cable will be given sufficient warning of its presence.

25. The protection, marking or indication required by regulation 24 shall be made in accordance with the provisions of the Grid Code, Distribution Code and Associated Technical and Safety Standards, as applicable to each of the relevant persons as will be likely to provide an appropriate warning. In the absence of such provisions, the protection, marking or indication 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.

26. Relevant persons shall take all reasonable steps in respect of any network or part thereof, owned or operated by relevant persons which is below ground on land which is not under their control, to maintain and keep up to date maps and records in hard and electronic form indicating the location and depth below surface level at which all cables are laid that form part of the network or parts thereof for which such relevant persons are responsible:

Provided however, nothing in this regulation shall require the inclusion on a map the information relating to the position and depth below surface level of networks or parts thereof which were placed below ground before the date of issuance of the license or exemption under this Act, as applicable, to each of the relevant person, where it would not be reasonably practicable to obtain such information.

27. Relevant persons shall make a copy of the whole or the relevant part of any map prepared or kept for the purposes of regulation 26 available for inspection by -

(a) the Public Utilities Commission of Sri Lanka or any person authorized by the Public Utilities Commission of Sri Lanka; or

(b) any other person who can show reasonable cause for requiring to inspect any part of the map,

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

28. Relevant persons may, provide to any person, on payment of a reasonable fee, a copy of a map or part thereof made under regulation 27.

29. Relevant persons shall ensure that overhead lines other than those in generating plants and substations comply with these regulations and all other design standards specified in the Grid Code, the Distribution Code and such Associated Safety and Technical Standards, as applicable to each of the relevant persons and shall not use any of their overhead lines which according to their knowledge do not comply with the same.

30. At any point where an overhead line is over or along a road or over any other location accessible or inaccessible to vehicular traffic, the height above the ground of such overhead line at the maximum likely temperature of that line, should not be less than the limits specified in relevant columns of Part I of Schedule 2.

31. Regulation 30 shall not apply to any section of -

(a) an overhead line at any point where it is not over or along a road accessible to vehicular traffic and which

(i) is surrounded by insulation ; or

(ii) is not surrounded by insulation but is at least four point three (4.3) meters above the ground and connects equipment mounted on a support to any overhead line; or

(iii) is connected with earth; or

(b) an overhead service line, erected between a building or structure and the nearest support or between two buildings or structures at any point where it is not over or along a road accessible to vehicular traffic, provided that-

(i) it is surrounded by insulation; and

(ii) height above the ground is not less than three point seven (3.7) meters, where that line is over any way used by vehicles and to which, the members of the public have access, or three point five (3.5) meters where that line is over any way used by vehicles and to which, a member of the public does not have access, or two point seven (2.7) meters in any other section of that line; or

(c) an overhead line which is a part of the consumers' installation, erected between a building or structure and the nearest support or between two buildings or structures at any point where it is not over or along a road accessible to vehicular traffic, provided that -

(i) it is surrounded by insulation; and

(ii) height above the ground is not less than three point seven (3.7) meters, where that line is over any way used by vehicles, or two point seven (2.7) meters, in any other section of that line.

32. The height above the ground of any wire or cable which is attached to a support carrying any overhead line shall not be less than five point five (5.5) meters at any point where it is over a road accessible to vehicular traffic.

33. Where an overhead line crosses a navigable water way, such heights should be maintained so as to prevent any danger.

34. Any part of an overhead line which is not connected with earth and which is not ordinarily accessible shall be supported by insulators or surrounded by insulation.

35. 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; and
- (c) adequately protected to prevent danger.

36. 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 notice of his intention to erect that building or structure in writing to the relevant person who owns or operates the overhead line, and obtain a safety clearance certificate from the relevant person before erecting such building or structure. However, a safety clearance certificate shall not be issued and the building or structure shall not be erected if the distance from such building or structure to any part of the overhead line, at the maximum likely temperature of that line, becomes less than the limits specified in Part II of Schedule 2 hereto.

37. Where an overhead line is constructed over or near any building or structure, the distance from such building or structure to any part of the overhead line, at the maximum likely temperature of that line, shall not become less than the limits specified in Part II of Schedule 2 hereto.

38. 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.

39. The distance from any tree to any overhead line, at the maximum likely temperature of that line, shall not be less than the limits specified in Part III of Schedule 2. Partially insulated overhead lines shall be considered as “not surrounded by insulation” for purposes of this regulation.

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

41. 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 unauthorized person from reaching a position at which any such line would be a source of danger.

42. Every support carrying a high voltage overhead line, shall have attached to it sufficient safety signs of such size and be placed in such positions as are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances. Every sign attached or replaced after the enforcement of these regulations shall comply with specifications set out in Schedule I hereto.

43. Where lightning conductors are used or other bare conductors are used which have run down supports, they shall be protected so as to prevent danger within three (3) meters from the ground.

44. Every stay wire which forms part of or is attached to any support carrying an overhead line incorporating bare conductors, shall be fitted with an insulator of which no part shall be less than three (3) meters above ground level.

45. Where a person operates a source of energy as a switched alternative to transmission licensee’s or distribution licensee’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, it shall comply with Sri Lanka standard requirements:

Provided however, no person shall install or operate a source of energy which may be connected in parallel with a transmission licensee’s or distribution Licensee’s network unless he-

- (a) has the necessary and appropriate equipment in accordance with Grid Code, the Distribution Code and such Associated Safety and Technical Standards, as applicable to each of the relevant persons, to prevent danger or interference with that network or with the supply to consumers;
- (b) has the necessary and appropriate personnel and procedures to prevent danger;
- (c) where the source of energy is part of a low voltage consumer's installation, complies with Sri Lanka standard requirements; and
- (d) obtain written approval from the transmission licensee or distribution licensee who owns or operates the network:

Provided further that paragraphs (b) and (d) shall not apply to a person who installs or operates a source of energy which may be connected in parallel with a transmission licensee's or distribution licensee's network where-

- (i) paragraphs (a) and (c) are complied with;
- (ii) the source of energy is configured to disconnect itself electrically from the parallel connection when the transmission licensee's or distribution licensee's equipment disconnects the supply of electricity to the person's installation; and
- (iii) the person installing the source of energy ensures that the transmission licensee's or distribution licensee's written permission is obtained, to use a source of energy in parallel with the network before, or at the time of, commissioning the source.

46. The transmission licensees and distribution licensees shall ensure that their network shall be so arranged and so provided, where necessary, with fuses or automatic switching devices, appropriately located and set in order to minimize the number of consumers affected by any fault in their respective networks and at all times take all reasonably practicable steps to avoid interruptions of supply resulting from his own acts.

47. No person shall make or alter a connection from the Transmission Licensee's or Distribution Licensee's network to a consumer's installation, a street electrical fixture or to another distribution licensee's network without the consent of the transmission licensee or the distribution licensee.

48. The transmission licensee or the distribution licensee shall not unreasonably withhold the consent to make or alter the connection referred to in regulation 47 unless there exist reasonable grounds to believe that -

- (a) the consumer's installation, street electrical fixture or the distribution licensee's or transmission licensee's network has failed to comply with Sri Lanka standard requirements or provisions of any of 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; or
- (c) the connection will not comply with Grid Code, the Distribution Code and Associated Safety and Technical Standards, as applicable to each of the relevant persons.

49. Any dispute between a person and the transmission licensee or the distribution licensee, arising from delay in giving or refusal to give the consent under regulation 48 and which cannot be resolved between them may be referred by either party to the Commission in terms of Electricity (Dispute Resolution Procedure) Rules.

50. Where, commencing to provide a supply of electricity to any consumer or in making changes to the existing supply as requested by a consumer, transmission and distribution licensees shall, by notification in writing, declare to the consumer-

- (a) the type of current, whether direct or alternating, which he proposes to supply;
- (b) in the case of alternating current, the number of phases and also the frequency at which he proposes to deliver the energy to the delivery points; and
- (c) the voltage at which he proposes to deliver the energy to the supply terminals:

provided however, unless otherwise agreed in writing between the transmission licensee or distribution licensee, and the consumer or any other distribution licensee likely to be affected, the frequency declared shall be fifty (50) Hertz and the voltage declared in respect of a low voltage supply shall be two hundred and thirty (230) Volts between the phase and neutral conductors at the supply terminals.

For the purpose of this regulation, unless otherwise agreed in writing by the persons referred to therein, the permitted variations means:-

- (a) a variation not exceeding one (1) per centum above or below the declared frequency;
- (b) in the case of a low voltage supply, a variation not exceeding six (6) per centum above or below the declared voltage at the declared frequency;
- (c) in the case of a medium voltage supply, a variation not exceeding six (6) per centum above or below the declared voltage at the declared frequency; and
- (d) in the case of a high voltage supply, a variation not exceeding ten (10) per centum above or below the declared voltage at the declared frequency.

51. The Commission may, following an application by any transmission licensee or distribution licensee affected by a declaration made under regulation 50, authorize 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 Commission may require.

52. Where the Commission has authorized a variation under regulation 51, the transmission licensee or distribution licensee shall forthwith serve notice of any such variation on every supplier, other distribution licensee and consumer to whom it may apply.

53. Transmission licensee and distribution licensee shall ensure that, except in exceptional circumstances, the characteristics of the supplies to consumer's installations connected to his network comply with the declarations made under regulation 50.

54. The number and rotation of phases in any supply shall not be varied by the transmission licensee or distribution licensee except with the written agreement of the consumer or in the absence of such written agreement, the written consent of the Commission who may impose such conditions, if any, as the Commission thinks appropriate.

55. The transmission licensee and the distribution licensee shall ensure that each item of their equipment which is on a consumer or a generation licensee's premises but not under the control of the consumer or generation licensee (whether forming part of the consumer's or generation licensee'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.

56. Every circuit breaker or cut-out fuse forming part of the fusible cut-out mentioned in regulation 55 (c), shall be enclosed in a locked or sealed container as appropriate.

57. Where the circuit breaker or the cut-out fuse form part of the equipment which is on a consumer's premises but is not under the control of the consumer, a transmission licensee or a distribution licensee shall mark it permanently, so as to identify clearly the polarity of each of them and 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.

58. Unless the transmission licensee and distribution licensee can reasonably conclude that it is inappropriate for reasons of safety, any such licensee shall, when providing a new connection at low voltage, -

- (a) make available the neutral conductor of his network for connection to the neutral conductor of the consumer's installation;
- (b) if distribution licensee's protective conductor is available, make available the protective conductor of his network for connection to the protective conductor of the consumer's installation.

59. Where a connection to a transmission licensee's or distribution licensee's network has been made, or is proposed, and the transmission licensee or distribution licensee is not satisfied that the consumer's installation or the distribution licensee's network or street electrical fixture which is or would be connected to their 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 their or any other distribution licensee's network or with the supply to any consumer's installation or street electrical fixture, the transmission licensee or the distribution licensee may issue a notice in writing to the consumer or other distribution licensee or the owner of the street electrical fixture requiring remedial work to be carried out within such reasonable period as may be specified in the notice.

60. If the remedial works specified in the notice by the transmission licensee or the distribution licensee are not carried out on or before the end of the period specified in the notice, the transmission licensee or the distribution licensee may disconnect or refuse to connect the supply to the consumer's installation or the distribution licensee's network or street electrical fixture, and in such an event the transmission licensee or the distribution licensee shall by further notice in writing addressed to the consumer or other distribution licensee or the owner of the street electrical fixture, set out the reasons for the disconnection or the refusal to connect.

61. A transmission licensee or a distribution licensee may disconnect the supply to the consumer's installation or the distribution licensee's network or street electrical fixture without giving notice as required by regulation 59 if such disconnection can be justified on grounds of safety, but in such an event the transmission licensee or the distribution licensee shall by notice in writing addressed to the consumer or the distribution licensee or the owner of the street electrical fixture 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 the distribution licensee or the owner of the street electrical fixture.

62. The transmission licensee or the distribution licensee shall connect or restore the supply when the stipulated remedial measures have been taken by the consumer or the distribution licensee or the owner of the street electrical fixture to the reasonable satisfaction of the transmission licensee or the distribution licensee or if no remedial measures are required, as soon as is reasonably practicable after the grounds for disconnection have ceased to apply.

63. Any dispute between the transmission licensee or the distribution licensee and the consumer or the distribution licensee or the owner of the street electrical fixture, over the disconnection of or refusal to connect the consumer's installation or the distribution licensee's network or street electrical fixture which cannot be resolved between them, may be referred by any of the party to the Commission in terms of Electricity (Dispute Resolution Procedure) Rules.

64. A transmission licensee or a distribution licensee 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 any 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 transmission licensee's or the distribution licensee'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 50,

which applies or will apply to that installation.

65. A transmission licensee or a distribution licensee may discontinue a supply for the purposes of testing or for any other purpose connected with the carrying on of his activities; only -

- (a) for such period as may be necessary but no longer; and
- (b) if not less than 2 days notice has been received by the relevant persons;

Provided however, a transmission licensee or a distribution licensee may discontinue a supply even if the notice required by regulation 65(b) above has not been received by the relevant persons if -

- (i) the discontinuation is agreed between the relevant consumer and the transmission licensee or the distribution licensee; or
- (ii) the transmission licensee or the distribution licensee considers it necessary to discontinue supplies to the relevant consumer in order to prevent danger or to undertake essential emergency repairs; or
- (iii) if there is an urgent need to discontinue the supply relating to the safe or proper operation of the network; or
- (iv) the notice is not received by the relevant consumer due to circumstances not within the control of the transmission licensee or the distribution licensee.

66. A relevant person 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 6 of the Sri Lanka Electricity Act, No. 20 of 2009, shall afford reasonable facilities and provide such information to the inspector as he may require for the purposes of performing his functions under this regulation successfully.

67. (1) Notice shall be given to the Commission in accordance with this regulation by the transmission licensee or the distribution licensee in respect of any event specified in paragraph (2)(b) where the event involves a consumer's installation which is connected to the transmission licensee's or distribution licensee's network and by any of the relevant

persons in respect of any other event specified in paragraph (2) and involves a network or equipment which is in the ownership of, under the control of, or used by, the relevant person, 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; or

(ii) an injury (including any electric shock) to any person; or

(iii) any fire; or

(iv) any explosion or implosion;

(b) any event attributable in whole or in part to the presence of electricity on the consumer's side of the supply terminals on any non-industrial and non-commercial premises resulting in the death of any person, if the event becomes known to the distribution licensee;

(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/distance less than that required by regulations 30, 36, 37 and 39;

(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 Commission by telephone or other immediate means of communication immediately after the event becomes known to the relevant person, 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 relevant person, as the case may be, be given to the Commission 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 Commission as soon as the event becomes known to the relevant person, which,

(a) conforms to the description specified by the Commission; and

(b) subject to paragraph (8), contains the information comprising the relevant particulars, arranged in a form which complies with the technical requirements specified by the Commission.

(7) In respect of any event specified in paragraph (2)(d), notice containing the relevant particulars shall be sent to the Commission 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 relevant person 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 Commission in writing by the quickest practicable means immediately after they have become known.

(9) The Commission may require a relevant person to submit further information to the Commission relating to any matter which the relevant person has notified the Commission under this regulation.

(10) In this regulation -

(a) “event” means any event of the kind specified therein irrespective of whether it is accidental or otherwise;

(b) “relevant particulars” means -

(i) in respect of an event specified in paragraphs (2)(a), (2)(b) or (2)(d) of the regulation 2, the particulars specified the Parts I, II or IV respectively of Schedule 3; and

(ii) in respect of an event specified in paragraphs (2)(c) or (2)(e) of the regulation 2, the particulars specified in Part III of Schedule 3;

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

68. The Commission may from time to time, on its own motion or pursuant to a request made by a relevant person, by Order published in the Gazette, exempt the person requesting the exemption or certain categories of persons from the requirement to comply with these regulations or any part thereof for such period as may be set out in the said Order, having regard to the manner in which or the quantity of electricity likely to be generated or distributed by such categories of persons. The request shall be made in writing and shall disclose the reasons for the exemption sought.

69. (1) Where the Commission 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 is served,

is liable to become -

(i) a source of danger to others; or

(ii) an interference with the supply to others; or

(iii) a cause of interruption to the supply to others,

then and in such an event the Commission may serve notice on the relevant person or consumer specifying the matter of which the Commission 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) be made dead; or
- (c) be removed; or
- (d) 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.

(2) Where such a notice as referred to in paragraph (1) above 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 Commission shall withdraw the notice:

Provided however, a relevant person or consumer may appeal to the Commission within two (2) days for full or partial release of himself from the requirements of the notice, stating the full extent of the reasons for such appeal.

(3) Approval will be granted by the Commission for such appeals as specified in (2) above, where the Commission is satisfied with the reasons mentioned in the appeal;

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

70. Relevant persons shall,

- (a) prepare a safety manual incorporating all safety rules and safety precautions applicable to their network; and
- (b) establish a safety management system at all locations where an electrical interface exists between the relevant person's network and those of its users and other relevant persons,

in accordance with the Grid Code, Distribution Code and other relevant standards, as applicable to each of the relevant persons.

71. In these regulations, unless the context otherwise requires :-

“Act” means the Sri Lanka Electricity Act, No. 20 of 2009;

“Commission” means the Public Utilities Commission of Sri Lanka established under the Public Utilities Commission of Sri Lanka Act, No. 35 of 2002;

“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 purpose 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 a consumer of electricity in Sri Lanka and includes a prospective consumer.

“consumer’s installation” means the electric line 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;

“distribution 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;

“distribution code” shall mean such technical or operational codes approved by the Commission and required by a distribution licensee to be implemented and maintained in terms of the license issued by the Commission;

“distribution licensee” means a person who has been granted an electricity distribution license or exempted from the requirement of obtaining a distribution license under the Act,

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

“Grid Code” shall mean such technical or operational codes approved by the Commission and required by a transmission licensee to be implemented and maintained in terms of the license issued by the Commission;

“high voltage” means a nominal voltage exceeding 33,000Volts.

“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;

“insulated” will be construed accordingly;

“low voltage” means a nominal voltage exceeding 50 volts and not exceeding 1000 Volts;

“medium voltage” means a nominal voltage exceeding 1000 Volts and not exceeding 33,000 Volts;

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

“network” means an electric 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;

“new connection” means the first electric line or the replacement of an existing electric line, to one or more consumer’s installations.

“ordinarily accessible” means that 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.

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

“performance standards” means electricity distribution performance standards regulations;

“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;

“relevant persons” mean all generation licensees, transmission licensees and distribution licensees and persons exempted under section 9 of the Act in obtaining a license;

“safety clearance certificate” means a certificate issued by a relevant person to a person responsible for erecting a building or structure, certifying that there is no apparent danger from his equipment for carrying out such tasks;

“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 distribution Main;

“Sri Lanka Standards Institute” or “SLSI” means the Institute established under the Bureau of Ceylon Standards Act, No. 38 of 1964;

“Sri Lanka Standard requirements” means the Sri Lankan standard requirement for electrical installations specified by the Sri Lanka Standard Institute or 17th Edition of “British Standard Requirements for electrical installations” (BS 7671:2008) or latest;

“street electric 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 contains 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 supplying of electricity to any premises including bulk sales 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 and “supported” will be construed accordingly;

“switching device” includes any device which can either make or break a current or both;

“transmission licensee” means a person who has been granted an electricity transmission license;

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

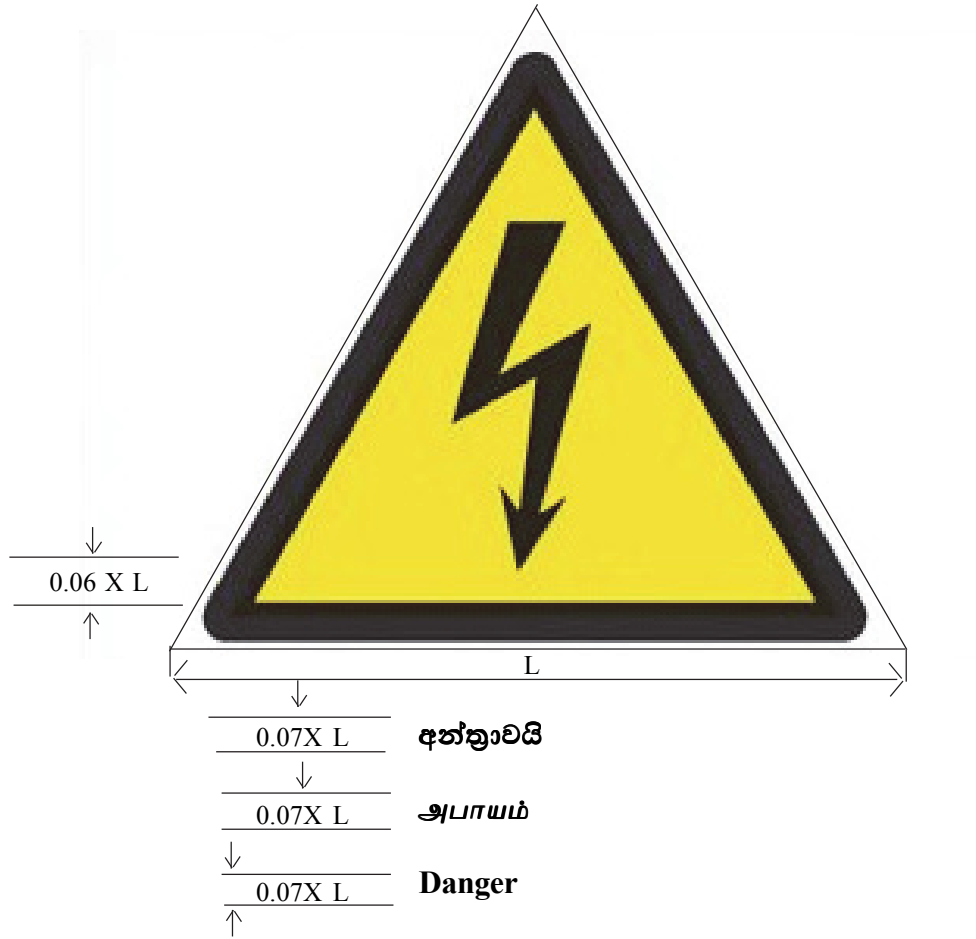
Schedule I

DESIGN, COLOURS AND PROPORTIONS OF THE SAFETY SIGN

Regulations 20(b)(i) and 42

1. A safety sign shall incorporate a design, and shall be of the proportions, as shown in the diagram, except that the height of the text may be increased to a maximum of 0.12 x L
2. The triangle, symbol and text shall be shown in black on a yellow background.
3. The symbol shall occupy 30 percent to 50 percent of the area within the triangle.
4. A safety sign may include additional text but any such text –
 - (a) Shall be in black; and
 - (b) Shall be the same size as the text used on the safety sign,

And no part of any additional text shall appear on the sign higher than the base of the triangle.



Schedule 2

PART I

HEIGHT ABOVE THE GROUND OF OVERHEAD LINES

Regulation 30

<i>Nominal voltages</i>	<i>Over Roads</i>	<i>Along Road</i>	<i>Over other Locations Accessible to Vehicular Traffic</i>	<i>Over othe Locations Inaccessible to Vehicular Traffic</i>
Not exceeding 1000 Volts	5.5 m	4.9 m	4.9 m	4.6 m
Exceeding 1000 Volts but not exceeding 11,000 Volts	6.1 m	5.2 m	5.2 m	4.6 m
Exceeding 11,000 Volts but not exceeding 33,000 Volts	6.4 m	6.1 m	6.1 m	4.9 m
Exceeding 33,000 Volts but not exceeding 132,000 Volts	6.7 m	6.7 m	6.7 m	6.7 m
Exceeding 132,000 Volts but not exceeding 220,000 Volts	7.0 m	7.0 m	7.0 m	7.0 m

PART II

DISTANCE FROM BUILDINGS OR STRUCTURES TO OVERHEAD LINES

Regulation 36 and 37

Minimum distances from any building or structure to any position to which a conductor in an overhead line may swing under the influence of wind shall be as specified below :

<i>Nominal Voltages</i>	<i>Vertical Distance</i>	<i>Horizontal Distance</i>
Not exceeding 1000 Volts	2.40 m	1.50 m
Exceeding 1000 Volts but not exceeding 11,000 Volts	2.70 m	1.50 m
Exceeding 11,000 Volts but not exceeding 33,000 Volts	3.00 m	2.00 m
Exceeding 33,000 Volts but not exceeding 132,000 Volts	4.10 m	4.10 m
Exceeding 132,000 Volts but not exceeding 220,000 Volts	5.18 m	5.18 m

PART III

DISTANCE FROM TREES TO OVERHEAD LINES

Regulation 39

The distance identified below may be further increased considering the factors such as tree movement, tree re-growth, overhanging of branches, conductor swing and Falling of a tree/part of a tree, etc.; for different geo-physical conditions, as applicable.

No part of a tree should be allowed above an overhead line within specified horizontal distances.

(a) Low Voltage Overhead Lines

	<i>Not surrounded by insulation</i>	<i>Surrounded by insulation</i>
Vertical distance	2.7 m	0.15 m
Horizontal distance	1.5 m	0.15 m

(b) Medium Voltage Overhead Lines

(i) 11 kV

Vertical distance	2.7 m
Horizontal distance	1.5 m

(ii) 33kV

Vertical distance	3.7 m
Horizontal distance	2.9 m

(c) High Voltage

(i) 132 kV

Within an area of 13.5 m from center line on both sides of the overhead line, trees shall not be grown, unless the licensee determines that it wouldn't compromise safety. In case the licensee allows trees to be grown, following minimum distances shall be maintained up to swing of 45°

- 1.4 m from the overhead line if tree cannot support a ladder/climber, and
- 3.6 m from the overhead line if tree is capable of supporting a ladder/climber

Outside the area of 13.5 m from center line on both sides of the overhead line, height of the tree should be at least 5 m less than the distance to the tree from the center line.

(ii) 220 kV

Within the area of 17.5 m from center line on both sides of the overhead line, trees shall not be grown, unless the licensee determines that it wouldn't compromise safety. In case the licensee allows trees to be grown, following minimum distances shall be maintained up to swing 45°

- 2.4 m from the overhead line if the tree cannot support a ladder/climber, and
- 4.6 m from the overhead line if the tree is capable of supporting a ladder/climber,

Outside the area of 17.5 m from center line of the overhead line, height of the tree should be at least 5 m less than the distance to tree from the center line.

Schedule 3

NOTIFICATION OF SPECIFIED EVENTS

Regulation 67

PART 1 – EVENTS SPECIFIED IN REGULATION 67(2)(a)

Particulars relating to the person submitting the notice

1. Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.
2. Date on which the notice is submitted.
3. A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Particulars relating to the event

4. Nature of site of event.
5. Date and time of event.

6. Persons involved in the event, if any –

- (a) If at work, type of work;
- (b) If not at work, sufficient description to identify status, e.g. house holder, visitor, child;
- (c) Age;
- (d) Sex; and
- (e) Nature of injury, if any.

7. Network details –

- (a) Voltage;
- (b) Equipment at site of event, whether overhead lines, underground cables, distributing mains or service lines, or if other, specify;
- (c) Where relevant, whether the earthing of the low voltage network is by means of protective multiple earthing;
- (d) Extent of operation of circuit protection;
- (e) In respect of events involving overhead lines -
 - (i) Height of the electric line at point of contact, if any;
 - (ii) Whether or not the electric line remained live on the ground or at a reduced height; and
 - (iii) Whether or not the electric line was surrounded by Insulations; and
- (f) In respect of events not involving overhead lines –
 - (i) Whether the equipment was situated indoors;
 - (ii) Where a substation is involved, a brief description of substation physical security equipment, e.g. brick building, steel doors, nature of fencing; and
 - (iii) Whether any security fence was also the perimeter fence.

8. Brief facts of the event, including where known, the cause.

9. Details of any action which has been, or is intended to be, taken to prevent a recurrence of the event.

PART II – EVENTS SPECIFIED IN REGULATION 67(2)(b)

Particulars relating to the person submitting the notice

- 1. Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.
- 2. Date on which the notice is submitted.

3. A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Particulars relating to the event

4. Site of the event-

- (a) Address; and
(b) Location within the premises

5. Date of event.

6. Persons involved in the event –

- (a) Surname and initials of the deceased person;
(b) If at work, type of work;
(c) If not at work, sufficient description to identify status, e.g. house holder, visitor, child;
(d) Age;
(e) Sex; and
(f) Nature of injury and cause of death.

7. Fatal accident inquiry determinations.

8. Equipment involved in the event –

- (a) Equipment directly involved –
(i) Type and make;
(ii) Whether it was faulty;
(b) Whether the death was due to a fault involving –
(i) fixed wiring
(ii) flexible lead;
(iii) appliance lead;
(iv) appliance;
(v) plug;
(vi) socket outlet;
(vii) misuse of Equipment or appliance;

- (viii) bare wires;
- (ix) taped joints;
- (x) broken Neutral Conductor; or
- (xi) exposed and live plug pins.

9. Network and Consumer's Installation details –

- (a) Voltage;
- (b) Earthing arrangements, whether –
 - (i) the Earthing connection was loose;
 - (ii) the Earthing connection was disconnected;
 - (iii) the Earthing connection was in contact with a phase conductor in the plug, the socket, or elsewhere, and if so, where;
 - (iv) the Earthing connection was to a water pipe, local earth electrode, cable sheath, aerial earth wire or earthing terminal and, if so, which;
 - (v) the Earth fault loop impedance was measured and, if so, the measurement obtained;
- (c) description of circuit protection; and
- (d) Extent of operation of circuit protection.

10. Whether there was evidence of amateur work.

PART III– EVENTS SPECIFIED IN REGULATION 67(2)(C) AND 67(2)(e)

Particulars relating to the person submitting the notice

1. Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.
2. Date on which the notice is submitted.
3. A unique and sequential reference number indicating, in respect of each year ending on 31st December, the number of the event.

Particulars relating to the event

4. Nature of Site of event, e.g. street, farms, workshops, constructions.
5. Date of event.

6. Whether the persons involved in the event, if any, was –
 - (a) at work, and, if so, the type of work;
 - (b) not at work, and, if so, sufficient description to identify status, e.g. house holder, visitor, child;
7. Network details –
 - (a) Voltage;
 - (b) Equipment at site of event, whether overhead lines, underground cables, distributing mains or service lines, or if other, specify;
 - (c) Height of the electric line at point of contact, if any;
 - (d) Whether or not the electric line remained live on the ground or at a reduced height;
 - (e) Whether or not the electric line was surrounded by Insulation;
 - (f) Description of circuit protection; and
 - (g) Extent of operation of circuit protection.
8. Brief facts of the event, including the cause where known and details of all Equipment involved and the person responsible for the equipment.
9. Details of any action which has been, or is intended to be, taken to prevent a recurrence of the event.

PART IV – EVENTS SPECIFIED IN REGULATION 67(2)(d)

Particulars relating to the person submitting the notice

1. Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.
2. Date on which the notice is submitted.
3. A unique and sequential reference number indicating, in respect of each year ending on 31st December, the number of the event.

Particulars relating to the event

4. (a) Total number of events, if any, during the 3 months period specified in regulation 67(7), classified as specified in sub-paragraph (b) and as also classified as involving deliberate or accidental contact, damage or interference by each of the following –
 - (i) a relevant person, a telecommunication code system operator, a gas transporter, a water sewerage authority, a local or highway authority, or their respective contractors
 - (ii) farmers, farm workers or farm implements;
 - (iii) private individuals;

- (iv) other persons; and
- (v) other causes, e.g. corrosion, ground subsidence, faulty manufacture, ageing or deterioration
- (b) The classes referred to in sub-paragraph (a) are -
 - (i) low voltage service lines
 - (ii) low voltage distributing mains; and
 - (iii) high voltage electric lines (specifying voltage)

06.06.2016

REGULATIONS MADE UNDER SECTION 54 OF THE SRI LANKA ELECTRICITY ACT, No. 20 OF 2009

BY virtue of the powers vested in me by Section 54 of the Sri Lanka Electricity Act, No. 20 of 2009, and on the recommendation of the Public Utilities Commission of Sri Lanka, I, Ranjith Siyambalapitiya, the Minister of Power and Renewable Energy, do by this order make the undermentioned Regulations on Electricity (Transmission) Performance Standards.

RANJITH SIYAMBALAPITIYA,
Minister of Power and Renewable Energy.

13th July 2016.

L.D.B 3/2009 (iii).

SRI LANKA ELECTRICITY ACT, NO. 20 OF 2009

REGULATIONS made by the Minister of Power and Renewable Energy on the recommendation of the Public Utilities Commission of Sri Lanka, under sections 54 of the Sri Lanka Electricity Act, No. 20 of 2009 read with sections 24, 40 and 56 of the aforesaid Act.

Regulations

1. These regulations may be cited as the Electricity (Transmission) Performance Standards Regulations of 2016.

2. These Regulations shall Establish –

- (a) procedural rules, requirements and indices for the assessment of –
 - (i) transmission system performance in respect of supply availability, supply reliability, supply quality, protection function, transmission system operation, transmission system expansion and generation acquisition; and
 - (ii) generation system performance.
- (b) the methodologies for-
 - (i) determining the appropriate values for the said indices; and
 - (ii) assessing the compensation to be paid to consumers and customers and claw back from the Allowed Revenue in the event the performance indices fall below target levels:

Provided that, appropriate levels setout in regulation 2 (b) (ii) shall be the guaranteed minimum standards of service that the Transmission Licensee shall achieve and maintain in the discharge of the Licensee's obligations.

3. These regulations shall be used in conjunction with the Grid Code of Sri Lanka and shall be applicable to -

- (a) Transmission Licensee;
- (b) Generation Licensees;
- (c) Distribution Licensees; and
- (d) Transmission Customers or Consumers.

4. The Transmission Licensee shall be responsible for –

- (i) operating its transmission system in accordance with the standards specified in these regulations; and
- (ii) preparing, submitting and disclosing the relevant information as setout in these regulations.

5. Transmission system users shall be responsible for –

- (i) disclosing necessary information to the Transmission Licensee as maybe reasonably required;
- (ii) a general awareness of the performance standards specified in these regulations and its implementation; and
- (iii) co-operating with the Transmission Licensee to ensure compliance with these regulations.

PERFORMANCE INDICATORS AND METRICS

6. The Performance indicators and metrics shall apply to –

- (a) transmission system supply availability;
- (b) transmission system supply reliability;

- (c) transmission system power quality;
- (d) transmission system protection system;
- (e) transmission system operations;
- (f) generation system performance;
- (g) transmission system expansion; and
- (h) generation acquisition.

PERFORMANCE INDICES FOR SUPPLY AVAILABILITY

7. The transmission system availability shall be assessed through two types of Performance Indices –

- (a) Individual Performance Indices; and
- (b) Overall Performance Indices.

INDIVIDUAL PERFORMANCE INDICES FOR SUPPLY AVAILABILITY

8. In individual Performance Indices, the availability of each Transmission System component shall be measured through the following performance indices calculated for a specified period:-

- (a) total number of interruptions and the total duration of such interruptions per transmission line/per underground cable; and
- (b) total number of interruptions and the total duration of such interruptions per grid substation transformer.

9. The Performance indices setout in regulation 8 shall be calculated separately, segregating Interruptions caused by:-

- (a) planned development and maintenance programmes of the Transmission Licensee;
- (b) failures of the respective transmission component itself; and
- (c) failures in any part of the power system other than the transmission system component under consideration.

OVERALL PERFORMANCE INDICES FOR SUPPLY AVAILABILITY

10. The overall performance of supply availability shall be measured through the assessment of the ratio of the circuit hours that were unavailable in a specified period of the circuit hours that were theoretically available during the same period–

- (a) to transmit electricity by –
 - (i) transmission overhead lines;
 - (ii) underground cables,
- differentiated according to the voltage.

(b) to transform electricity by grid substation transformers differentiated according to the transformation ratio and capacity.

11. In regulation 10, the indices shall be expressed in percentage(%).

12. The performance indices defined in regulations 8 and 10 shall be calculated separately segregating the failures caused by –

(a) planned development and maintenance programmes of the Transmission Licensee;

(b) shortcomings of the respective transmission components; and

(c) failure of any part of the power system other than that of the transmission system component under consideration.

13. In these regulations, the specified period for assessment of individual and overall performance indices referred to in the regulations 7 and 10(a) shall be one calendar month.

14. In calculating the performance indices, the following shall not be considered:-

(a) interruptions of less than 1 minute duration; and

(b) interruptions due to *force majeure* events.

PERFORMANCE INDICES FOR SUPPLY RELIABILITY INDIVIDUAL PERFORMANCE INDEX FOR SUPPLY RELIABILITY

15. The individual performance of supply reliability shall be measured through the number of sustained interruptions and the durations of such interruptions, that each connection point of a Distribution Licensee, Transmission Customer or Generation Licensee will experience within a specified period.

OVERALL PERFORMANCE INDICES FOR SUPPLY RELIABILITY

16. The following indices shall be used for the measurement of overall performance of supply reliability –

(a) Transmission System Average Interruption Frequency Index (TSAIFI)(number)- the total number of sustained interruptions at the connection points within a specified period divided by the total number of connection points made available to a Distribution Licensee, Generation Licensee, Transmission Customer, within the same period.

(b) Transmission System Average Interruption Duration Index (TSAIDI)(minutes)- the total duration of sustained power Interruptions at the Connection Points within a specified period divided by the total number of Connection Points within the same period.

(c) Estimated Energy Not Supplied (EENS) is an estimation of the energy not supplied to the connected loads of Distribution Licensee or Transmission Customer during a specified period.

17. The performance indices set out in regulations 15 and 16 shall be calculated separately segregating the interruptions owing to –

(a) planned development and maintenance programmes of the Transmission Licensee;

(b) shortcomings of the respective transmission component; and

- (c) failure of any other part of the power system other than that of the transmission system component under consideration.

18. The specified period for assessment of individual and overall performance indices referred to in the regulations 15 and 16 shall be one calendar month.

19. All performance indices referred to in these regulations shall be calculated on once in three months, biannually and yearly moving average basis.

20. In calculating the performance indices, the following shall not be considered:-

- (a) interruptions less than 1 minute duration; and
(b) interruptions due to *force majeure* events.

PERFORMANCE INDICES FOR POWER QUALITY

21. The power quality of an electricity supply is assessed by measuring the variations in voltage, phase angle, frequency, flicker and harmonics from the values and bands specified in the Grid Code:

Provided that these regulations shall apply in respect of non-compliance with the permitted variations in voltage, frequency, flicker and harmonics.

VOLTAGE VARIATIONS

22. In these regulations,

- (a) voltage variations at connection points shall be assessed using data available in the Supervisory Control and Data Acquisition (SCADA) system.
(b) the Transmission Licensee shall initiate a voltage measurement programme based on a methodology agreed with the relevant Licensee or Transmission Customer for connection points where such data is not available.

23. In these regulations, voltage measurement programme shall be based on the following:-

- (a) data collected by the Transmission Licensee according to regulation 17;
(b) requests and complaints from the Distribution Licensee or Transmission Customers; and
(c) requests from PUCSL based on complaints received.

24. The Transmission Licensee shall submit its voltage measurement programme to the PUCSL at least three weeks before the end of the preceding quarter and shall reach an agreement with the PUCSL by the first working day of the last week of the same quarter.

25. The Transmission Licensee shall prepare a report on voltage variation which shall comprise the following:-

- (a) a list of locations with dates and time periods of measurements;
(b) locations where, voltage lies outside the limits defined in the Grid Code for more than 10% of the measurement period;

- (c) analysis of the results citing reasons for deviations and proposed remedies for the short comings with time targets;
- (d) list of locations where remedial measures have been taken in the last three quarters; and
- (e) list of locations where remedial measures have not been effected and reasons for such delays.

FREQUENCY VARIATIONS

26. In these regulations –

- (a) the Transmission Licensee shall measure the deviation in frequency from the standard value of 50Hz, over a period of one month using a sampling method agreed with the PUCSL;
- (b) if the deviation in frequency is outside the limits specified in the Grid Code, every efforts should be taken to rectify the defect; and
- (c) the PUCSL shall be informed of the long term and short term measures taken to remedy the situation.

FLICKER AND HARMONICS

27. In these regulations –

- (a) performance indicators to measure flicker and harmonics distortion, and the allowed ranges shall be those specified in the Grid Code;
- (b) flicker and harmonic measurements shall be measured at each connection point (Measurement at one point will be sufficient if the connection points are on a continuous bus.) at least once in two years, in accordance with the procedures laid down in IEEE 519 or IEC 1000-4-7. If more than one connection point is provided to a Distribution Licensee or Transmission Customer from the same grid substation, one measurement for each Grid Substation shall be considered sufficient to determine the flicker and harmonic distortion;
- (c) The Transmission License shall prepare a report on flicker and harmonics which comprise the following:-
 - (i) a list of locations with dates and time periods of measurements;
 - (ii) locations where, flicker and harmonic distortions lie outside the limits defined in the Grid Code for more than 10% of the measurement period;
 - (iii) analysis of results citing reasons for deviations and proposals for remedying the shortcomings with time targets;
 - (iv) a list of locations where remedies have been taken in the last three quarters; and
 - (v) a list of locations where remedial measures have not been effected and reasons for such delay.

PERFORMANCE INDICES FOR THE POWER SYSTEM PROTECTION SYSTEM

28. The Performance of the power system protection system shall be assessed through the monitoring of the protection relay operations and the Transmission Licensee's willingness to analyse the transmission system failures.

29. The Transmission Licensee shall prepare a report which shall comprise the following: -

- (a) Ratio (percentage) of the correct relay operations inclusive of autore-closing operations where applicable, to the total number of operations in respect of –
 - (i) 33kV feeder outlets,
 - (ii) generator incomers,
 - (iii) 132kV transmission circuits,
 - (iv) 220kV transmission circuits, and
 - (v) grid substation transformers.
- (b) ratio (percentage) of the number of analysis reports prepared on the transmission system partial and total failures, to the total number of partial and total transmission system failures that have taken place.

30. The Performance indices for power system Protection shall be calculated for each calendar month.

PERFORMANCE INDICES FOR THE POWER SYSTEM OPERATION

31. In these regulations –

- (a) the metrics which shall be considered for assessing power system operational performance are power and energy losses, dispatch and safety;
- (b) losses and safety are taken care of under the tariff formulation and the safety management system, respectively, only the performance of dispatch will be assessed;
- (c) performance report on energy dispatch shall comprise of the following:-
 - (i) ratio (percentage) of the cost of actual daily dispatch to the calculated cost of the scheduled daily dispatch;
 - (ii) the number of days where the percentage has exceeded 105%;
 - (iii) reasons for exceeding the level set out in subparagraph (ii); and
 - (iv) remedial action proposed to overcome the deficiency; and
- (d) all performance indices in respect of power system operations shall be calculated for each calendar month.

PERFORMANCE INDICES FOR THE GENERATION SYSTEM

32. In these regulations –

- (a) generation system performance is assessed through the comparison of actual values in respect of the following attributes of the power stations with those in accordance with the Power Purchase Agreements (PPA) where applicable :-

- (i) dispatch;
- (ii) auxiliary consumption; and
- (iii) availability.

- (b) the Transmission Licensee shall decide on the dispatch from a power plant on a day ahead basis. Actual dispatch from the power plants may differ from the scheduled dispatches.
- (c) the ratio of the actual dispatch and the scheduled dispatch for each calendar month for each power station shall be the performance indicator on dispatch and shall be calculated for each calendar month.
- (d) the performance indicator for auxiliary consumption will be the ratio (percentage) of the auxiliary consumption of a power station in a given period to the gross energy output by the same power station during the same period.

33. The performance indicator for auxiliary consumption shall be calculated on monthly basis for each Power Station and shall be compared with the benchmark to be established by PUCSL.

34. The availability factor-

- (a) is set out as the ratio (percentage) of the duration a power station has been available for operation to the total duration of the period considered;
- (b) shall be determined on a monthly basis for each power station by computing the non-availability of the power station due to forced outages and planned outages and comparing the value against the declared availability in the PPA.

PERFORMANCE INDICES FOR TRANSMISSION SYSTEM EXPANSION AND GENERATION ACQUISITION

35. In these regulations –

- (a) the performance indicator for the implementation of Transmission System expansion and generation acquisition projects shall be the ratio between the delay in achieving a milestone to the total duration within which that milestone has been planned to be completed;
- (b) the Transmission Licensee shall inform the PUCSL the transmission and generation acquisition projects that have been earmarked to be undertaken over the next five year period and the key milestones for each project with target dates of completion;
- (c) information required in paragraph (b) shall be submitted by the Transmission Licensee at the beginning of the year or at the commencement of these regulations, whichever occurs first.
- (d) The transmission licensee and PUCSL shall agree on the milestones on which the performance will be monitored.

REPORTING AND FEEDBACK

36. In these regulations –

- (a) the Transmission Licensee shall submit the report on the transmission system and generation system performance in accordance with these regulations on a quarterly basis;

- (b) the report shall be submitted to the PUCSL on or before the last working day of the first month of the next quarter;
- (c) the PUCSL shall respond to the said report on transmission and generation performance within two weeks from the receipt of the same;
- (d) the PUCSL shall follow up the progress of the proposed action plan and publish a report on the transmission and generation system performance every year, analysing the results and comparing with international benchmarks; and
- (e) the PUCSL shall take steps to compensate the relevant parties and claw back the funds as specified in the Schedule hereto.

IMPLEMENTATION

IMPLEMENTATION STAGE

37. Implementation of these regulations, shall be done in three stages, namely –

- (i) Preliminary Stage;
- (ii) Adaptation Stage; and
- (iii) Hands-on Stage.

38. The completion of the three stages shall not be more than 36 months from the date of these regulations come into force.

39. The PUCSL, in consultation with the Transmission Licensee, shall decide on the duration of each stage for the implementation of these regulations, taking into consideration the time periods specified hereto.

PRELIMINARY STAGE

40. The preliminary stage shall have a maximum duration of 12 months and during this period, the Transmission Licensee is required to assess and acquire the information systems, financial and human resources.

41. The Transmission Licensee shall submit a report on the requirements within one month from the date of these regulations come into force, which shall include, but not limited to the following:-

- (a) assessment of the adequacy and the availability of its-
 - (i) human resources;
 - (ii) information systems;
 - (iii) procedures for collection of data; and
 - (iv) annual revenue requirements;
- (b) additional resources required; and
- (c) work plan for implementation with a target date of completion of all tasks within three months of receiving approval from the PUCSL.

42. The PUCSL shall examine the report, and approve the same or accept subject to modifications, or reject, within two weeks from the date of the Transmission Licensee submitting the report. The PUCSL shall provide an opportunity to the Transmission Licensee to justify its report, if PUCSL decides to reject or modify the same.

43. The Transmission Licensee shall commence work in accordance with the work plan immediately after PUCSL conveys its decision.

44. Within two months from the day PUCSL grants approval to the report described in regulation 41, the Transmission Licensee shall establish a database, which shall have the provisions to include all necessary data to compute the performance indices as specified hereto.

45. The PUCSL may inspect the databases and the Transmission Licensee shall cooperate with the PUCSL or its authorized representatives.

ADAPTATION STAGE

46. In these regulations –

- (a) the adaptation stage shall be maximum period of 12 months. During this period, PUCSL and the Transmission Licensee shall commence implementing the performance measurement and assessment programmes.
- (b) the Transmission Licensee shall ensure that all necessary information systems are established for the purpose of the calculation of the relevant indices within three months from the day the adaptation stage begins.
- (c) work on the calculation of performance indices both overall and individual shall commence immediately after making information systems operational.
- (d) before the end of the adaptation stage, the Transmission Licensee shall submit its first set of results to the PUCSL.

HANDS ON STAGE

47. In these regulations –

- (a) hands on stage, shall be maximum period of 12 months.
- (b) the PUCSL shall study the results submitted by Licensee with the objective of determining the appropriate levels for performance indices.
- (c) if the Transmission Licensee requests additional time for the completion of the tasks described hereto, the PUCSL may grant approval.
- (d) after deciding on the appropriate levels in accordance with paragraph (b), the PUCSL shall calculate the compensation to be paid to Distribution Licensee or Transmission Customer and the amounts to be clawed back from the Transmission Licensee's allowed revenue for non-compliance, using the formulae given in the Schedule.
- (e) the PUCSL and the Transmission Licensee shall adjust the specified levels for the performance indices where necessary and shall arrive at acceptable levels, studying the calculated results, upon completion of the hands on stage.

NON COMPLIANCE WITH PERFORMANCE TARGETS

48. The PUCSL shall ensure that all processes and mechanisms for the calculation of compensation and claw back from the Allowed Revenue are in place.

49. The PUCSL and the Transmission Licensee shall jointly review the progress in areas of the processing of relevant data, calculation of the performance indices etc. during the implementation period of 36 months.

50. The failure of the Transmission Licensee to achieve the specified levels of performance shall not be considered as non-compliance:

Provided however –

- (a) failure to submit any or all the information specified in these regulations at the specified time or period;
- (b) incomplete or inaccurate data or reports;
- (c) failure to implement the procedure and information systems specified hereto within the specified period;
- (d) failure or unacceptable delay in the execution of the approved remedial actions and plans to improve quality of supply; and
- (e) failure or unacceptable delay in situations that imply inadequate power quality,

shall be considered as non-compliance.

51. The failure of the Transmission Licensee to achieve the approved levels of performance shall be considered as such Licensee's failure to utilize the funds approved in the tariff filing process to achieve the required efficiency.

52. In the event, the Transmission Licensee fails to utilize allowed funds to achieve approved levels of performance, it shall be considered that funds allocated for efficiency improvement have not been effectively utilized by such Licensee, and that amount shall be clawed back from the allowed revenue for the succeeding year.

53. The amount to be clawed back and the compensation to be paid shall be proportional to the levels of the performance achieved, and the formulae to be used for determination of such amounts are given in the Schedule.

54. The clawing back of funds or paying compensation to the Distribution Licensee or Transmission Customer in accordance with the regulation 52, shall be limited only for supply reliability, defined in the regulations 15 and 16.

55. The Transmission Licensee shall not be required to pay compensation and the PUCSL shall not claw-back from allowed revenue until five years after the date of operation of these regulations.

56. In these regulations, unless the context otherwise requires:-

“ac” means alternating current;

“Act” means the Sri Lanka Electricity Act, No. 20 of 2009;

“active power” means the product of voltage and current and cosine of the phase angle between them measured in units of –

Watt (W)

kilowatt (kW) = 10^3 W

Mega Watt (MW) = 10^6 W

Giga Watt (GW) = 10^9 W

Tera Watt (TW) = 10^{12} W

“apparatus” means the all equipment in which electrical conductors are used, supported or of which they may form part;

“circuit hours” number of hours a transmission system component has remained available to carry out the functions expected of it;

“connection point” means a point at which a Distribution Licensee or Transmission Customer Plant or Apparatus connects to the transmission system;

“consumer” means a consumer of electricity in Sri Lanka and includes a prospective customer;

“customer” means a tariff customer;

“demand” means the requirement for active power and reactive power unless otherwise stated;

“Distribution Code” means a Code produced by Distribution Licensees pursuant to conditions of the License;

“Distribution Licensee” means a person appointed through a license issued by the PUCSL for the operation of the distribution system;

“distribution system” means the system consisting of lines owned and/or operated by a Distribution Licensee for the purposes of distribution of electricity from a grid substation to another substation, or to or from any external interconnection, or to deliver to customers, including any plant and Apparatus and meters owned or used by the Distribution Licensee in connection with the distribution of electricity;

“energy” means the quantity of electrical energy measured in units equal to one kilowatt hour (kWh) or multiples thereof such as:

1000 Wh = 1 kWh

1000kWh = 1 MWh

1000MWh = 1 GWh

“frequency” means the number of alternating current cycles per second (expressed in Hertz or Hz) at which a system is running;

“generating unit” means any apparatus which converts energy to electrical energy;

“generator” means a person or agency who generates electricity and who is subject to the Grid Code;

“Grid Code” means the Code implemented by the Transmission Licensee in terms of License issued;

“grid substation” means an assembly of equipment, including any necessary housing, for the conversion, transformation, switching or control of electrical power, where the incoming supply is at a High Voltage;

“High Voltage or HV” means the Voltage exceeding 33,000 Volt;

“interruption” means occurrence relating to equipment of the supply system which prevents its normal functioning;

“kVA” means the kilovolt ampere;

“License” means a License granted by PUCSL for the purpose specified;

“Licensee” means a person or a business entity to whom a license or authorization is issued by PUCSL, under the Public Utilities Commission of Sri Lanka Act, No. 35 of 2002 and Sri Lanka Electricity Act, No. 20 of 2009, for carrying out generation, transmission, distribution and supply of electrical energy;

“LKR” means the Sri Lankan Rupee;

“load” means the active and reactive power, as the context requires, generated, transmitted or distributed, and all similar terms shall be construed accordingly;

“MVA” means the Mega Volt Ampere = 1000 kVA;

“outage” means the removal of any part of the Transmission Licensee’s transmission system due to a breakdown or maintenance;

“party” means any person, corporate body, company, organization, authority, firm or association subject to provisions of the Distribution Code;

“Power Purchase Agreement or PPA” means the agreement entered into between a Generator and the Transmission Licensee pursuant to which the Transmission Licensee, agrees to purchase from the Generator the capacity of its generating units;

“power station” means an installation comprising one or more generating units (even where sited separately) owned and/or controlled by the same generator, which may reasonably be considered as being managed as one entity;

“protection” means the provisions for detecting abnormal conditions in a Transmission System or a part of it, and initiating fault clearance and activating alarms and indications;

“PUCSL” means the Public Utilities Commission of Sri Lanka established under Public Utilities Commission of Sri Lanka Act No 35 of 2002;

“Reactive Power or MVar” means the product of voltage and current and the sine of the phase angle between them, measured in units of volt-amperes reactive (VAr) and standard multiples thereof *i.e*

1000VAr = 1kVAr

1000 kVAr = 1MVar

“substation” means an assembly of equipment including any necessary housing for the conversion, transformation, switching or control of electrical power;

“Transmission Customer” means a person who requires a supply of electricity from the Transmission Licensee in pursuance of section 25 and 24(2) of SLEA and is supplied by the Transmission Licensee;

“Transmission Licensee” means a person appointed through a license issued by PUCSL for the operation of the transmission system;

“transmission system” means the system, which consists of high voltage electric lines and electric plant owned and operated by the Transmission Licensee and used for the purpose of transmission of electricity from a power station to a substation, or to another power station, or between substations, or to or from any external interconnection, including any plant and apparatus and meters owned or used by the Transmission Licensee in connection with the transmission of electricity;

“User or Transmission System User” means a person or entity that uses the Transmission Licensee’s transmission system. More specific definitions are identified in the Grid Code;

“working day” means any day other than saturday, sunday or a declared public holiday in Sri Lanka;

SCHEDULE
(Regulations 36 and 47)
Compensation for Under-Performance

INDIVIDUAL PERFORMANCE FOR SUPPLY RELIABILITY

1. The Transmission Licensee shall compensate the Distribution Licensees/Transmission Customers if the Individual Performance Indicators in supply reliability in a calendar year exceeds the specified levels approved by PUCSL for such indicators.

2. PUCSL shall calculate such amounts using the following formula and direct the Transmission Licensee to compensate the appropriate Distribution Licensees/Transmission Customers.

$$C_i^{Cust} = \sum_{a=1}^n t_{ai,j} \times \frac{year\ energy_i}{8760} \times Supply\ cost_i$$

where

C_i^{Cust}	Compensation to be paid by the Transmission Licensee to Distribution Licensee/ Transmission Customer “i” for Interruptions ‘n’ of type “j” during the calendar year owing to exceeding the tolerance specified for Individual Performance Indicator for such type of Interruptions.
n	Total number of Interruptions of type “j” to the Distribution Licensee/ Transmission customer “i”.
$t_{ai,j}$	Duration of the Interruption “a” of type “j” to customer “i”, expressed in hours
Year energy _i	Energy sales to the Distribution Licensee/Transmission Customer “i” within the calendar year, expressed in kWh.
SUPPLYCOST _i	Weighted average cost of supply in LKR/kWh to the Distribution Licensee/ Transmission Customer “i” at the Transmission/ Distribution boundary within the calendar year.

OVERALL PERFORMANCE INDICES FOR SUPPLY RELIABILITY

At the end of a calendar year, PUCSL shall calculate the funds Transmission Licensee has not effectively mobilized and claw back such funds from its Allowed Revenue, using the formula given below:

$$C_{i,j} = Max(C_{i,j}^{TSAIDI}, C_{i,j}^{TSAIFI})$$

where:

$C_{i,j}$: Amount to be clawed back from the Allowed Revenue from the Transmission Licensee for non-compliance with the Overall Performance Standards on supply reliability in respect of the supply provided to Distribution Licensee/Transmission Customer “i” for Interruptions of type “j”, in the corresponding calendar year.

Max (): means the maximum of all the values indicated within the brackets

In the above formula the parameters shall be as follows:-

Claw back of funds from Allowed Revenue for TSAIDI

$C_{i,j}^{TSAIDI}$, expressed in LKR shall be calculated as follows :

If the allowed level for $TSAIDI_{i,j} = \overline{TSAIDI_{i,j}}$

$$C_{i,j}^{TSAIDI} = (TSAIDI_{i,j} - \overline{TSAIDI_{i,j}}) \times \frac{YearEnergy_i}{8760} \times SUPPLYCOST_i$$

If $TSAIDI_{i,j} < \overline{TSAIDI_{i,j}}$, $C_{i,j}^{TSAIDI}$ will be zero.

Claw back of funds from Allowed Revenue for TSAIFI

$C_{i,j}^{TSAIFI}$, expressed in LKR shall be calculated as follows :

If allowed level of $TSAIFI_{i,j} = \overline{TSAIFI_{i,j}}$

$$C_{i,j}^{TSAIFI} = (TSAIFI_{i,j} - \overline{TSAIFI_{i,j}}) \times \left(\frac{TSAIDI_{i,j}}{TSAIFI_{i,j}} \right) \times \frac{YearEnergy_i}{8760} \times SUPPLYCOST_i$$

If $TSAIFI_{i,j} < \overline{TSAIFI_{i,j}}$, $C_{i,j}^{TSAIFI}$ will be zero.

Where

$TSAIDI_{i,j}$ and $TSAIFI_{i,j}$: Actual (registered) values of the Overall Performance Indices for supply reliability for the Distribution Licensee/Transmission Customer “i” of Interruptions of type “j” during the corresponding complete calendar year.

$\overline{TSAIDI_{i,j}}$ and $\overline{TSAIFI_{i,j}}$: Approved specified level of the selected Overall Performance Indices for the Interruptions of type “j” for the Distribution Licensee/Transmission Customer “i”

$YearEnergy_i$: Annual Energy sales by the Transmission Licensee to the Distribution Licensee/Transmission Customer “i” during the complete calendar year, expressed in kWh.

$SUPPLYCOST_i$: Weighted Average Cost of supply in LKR/kWh to the Distribution Licensee/Transmission Customer “i” at the Transmission/ Distribution boundary, within the calendar year.

Claw back of funds from Allowed Revenue for EENS

$$C_i^{ENS} = \left(\frac{EENS_i}{ETOT_i} - \frac{\overline{EENS_i}}{\overline{ETOT_i}} \right) \times YearEnergy_i \times CENS_i$$

If $\left(\frac{EENS_i}{ETOT_i} - \frac{\overline{EENS_i}}{\overline{ETOT_i}} \right) < 0$, then $C_i^{ENS} = 0$

$EENS_i$ Actual (registered) values of EENS for a Distribution Licensee/Transmission Customer “i” during the corresponding complete calendar year, expressed in kWh.

$$\left(\frac{EENS_i}{ETOT_i} \right)$$

: Specified ratio of EENS to total Energy sales to a Distribution Licensee/Transmission Customer “i” during the corresponding complete calendar year

$$C_i^{ENS}$$

: Amount to be clawed back from the Allowed revenue for exceeding the levels specified for EENS, for the Distribution Licensee/Transmission Customer “i” expressed in LKR

$$CENS_i$$

: Economic cost of Energy not supplied expressed in LKR/kWh to Distribution Licensee/Transmission Customer “i”.

REGULATIONS MADE UNDER SECTION 54 OF THE SRI LANKA ELECTRICITY ACT, No. 20 OF 2009

BY virtue of the powers vested in me by Section 54 of the Sri Lanka Electricity Act, No. 20 of 2009, and on the recommendation of the Public Utilities Commission of Sri Lanka, I, Ranjith Siyambalapitiya, the Minister of Power and Renewable Energy, do by this order make the undermentioned Regulations on Electricity (Distribution) Performance Standards.

RANJITH SIYAMBALAPITIYA,
 Minister of Power and Renewable Energy.

13th July 2016.

L.D.B 3/2009 (iii).

SRI LANKA ELECTRICITY ACT, NO. 20 OF 2009

REGULATIONS made by the Minister of Power and Renewable Energy on the recommendation of the Public Utilities Commission of Sri Lanka, under sections 54 of the Sri Lanka Electricity Act, No. 20 of 2009 read with sections 40 and 56 of the aforesaid Act.

L.D.B. 3/2009 (iii).

REGULATIONS

1. These regulations may be cited as the Electricity (Distribution) Performance Standards Regulations No. of 2016.
2. These regulations shall establish-
 - (a) the procedural rules, requirements and indices for assessment of –
 - (i) operational performance of the distribution system of a Licensee; and
 - (ii) commercial performance of the retail business of a Licensee; and
 - (b) the methodologies for-
 - (i) determining the appropriate values for the said indices; and
 - (ii) assessing the compensation to be paid to consumers and customers in the event the performance indices fall below the target levels.
3. These regulations shall be used in conjunction with the Distribution Code and shall be applicable to:-
 - (a) distribution licensees;
 - (b) tariff customers and consumers; and
 - (c) embedded generators.
4. Distribution Licensees shall be responsible for –
 - (a) operating its distribution system in accordance with the standards specified in these regulations; and
 - (b) preparing, submitting and disclosing the relevant information as set out in these regulations.
5. The Users shall be responsible for –
 - (a) disclosing such information to the relevant Distribution Licensee as may be reasonably be required;
 - (b) a general awareness of the performance standards set out in these regulations;
 - (c) co-operate with the Distribution Licensee to ensure compliance with these regulations.

SUPPLY QUALITY

Performance indices for supply quality

6. In these regulations, criteria for establishment of performance indices are as follows:-
 - (a) distribution system performance in respect of supply quality of a distribution system owned and operated by a Distribution Licensee shall be measured, recorded, monitored and evaluated using a uniform set of system performance indices; and
 - (b) quality of supply achievable for any part of a distribution system will vary on the characteristics specific to that part of the distribution system. These are identified as –
 - (i) load density;

- (ii) customer mix;
 - (iii) sales mix;
 - (iv) specific consumption; and
 - (v) extent of the network.
7. The distribution system of each Distribution Licensee shall be divided into four distribution groups identified as “Feeder Class A”, “Feeder Class B”, “Feeder Class C” and “Feeder Class D”. Such groups shall be reviewed at least once in two years subject to the approval of the PUCSL.
8. The levels for the performance indices for each group in respect of supply quality shall be determined, as set out in these regulations.
9. The supply quality of the distribution system of each Distribution Licensee shall be assessed through two types of performance indices namely:-
- (a) individual performance indices; and
 - (b) overall performance indices.

Individual performance indices

10. The supply quality to each individual customer in a Feeder Class of a Distribution Licensee shall be measured through:-
- (i) total number of interruptions due to distribution system faults per calendar year,
 - (ii) total number of interruptions due to planned programme arranged by the Distribution Licensee per calendar year,
 - (iii) total number of interruptions owing to system faults due to inter-licensee distribution systems per calendar year,
 - (iv) total number of interruptions due to planned programmes of the inter-licensee distribution systems per calendar year,
 - (v) total number of interruptions due to failures and planned outage programmes of the transmission system per calendar year,
 - (vi) total duration of interruptions due to distribution system faults per calendar year,
 - (vii) total duration of interruptions due to planned programmes arranged by the Distribution Licensee per calendar year,
 - (viii) total duration of interruptions due to failures of the inter-licensee distribution systems per calendar year
 - (ix) total duration of interruptions due to planned outages arranged in the inter-licensee distribution systems per calendar year; and
 - (x) total duration of interruptions due to failures and planned outage programmes of the transmission system per calendar year.

Overall performance indices

11. In these regulations, the following indices shall be used for the measurement of overall performance:-
- (a) System Average Interruption Frequency Index (SAIFI) -
the total number of sustained customer power interruptions within a given period divided by the total number of customers served within the same period;

- (b) System Average Interruption Duration Index (SAIDI) -
the duration of sustained customer power interruptions within a given period divided by the total number of customers served within the same period;
- (c) Estimated Energy Not Supplied (EENS) -
an estimate of the energy not supplied to customers due to interruptions during a specified period; and
- (d) Momentary Average Interruptions Frequency Index (MAIFI) -
the total number of momentary customer power interruptions within a given period divided by the total number of tariff customers served within the same period.

- 12 (a) Every overall performance index shall be calculated by a Distribution Licensee for interruptions due to:-
- (i) distribution system faults;
 - (ii) distribution planned maintenance programmes;
 - (iii) inter-licensee distribution system faults;
 - (iv) inter- licensee distribution system planned programmes; and
 - (v) upstream (transmission) failures maintenance programmes,

for each Feeder Class on a monthly and yearly basis.

- (b) When calculated on a yearly basis the specified period set out in paragraph (a) shall be considered as a calendar year. When calculated on a monthly basis, the specified period shall be considered as the period from the first day of a calendar month, up to the last day of **that calendar month** both days included.
- (c) In calculating the performance indices, the following shall not be considered:-
- (i) interruptions due to consumers being disconnected due to defaults by customers or offences committed under the Act; and
 - (ii) interruptions due to switching off of the power supply to avoid catastrophic situations, such as tsunamis, cyclones or any danger to human life etc.
- (d) the Licensee shall submit monthly reports to the PUCSL within 60 days from the end of that month, using the LISS.
- (e) The PUCSL shall specify the targets for the performance indices to be achieved by a Distribution Licensee at the time of tariff reviews.

POWER QUALITY

Power quality Assessment

13. In these regulations, the power quality of an electricity supply is assessed by measuring the variations in voltage, phase angle, phase balance, frequency, harmonics from the values specified in the Distribution Code.
14. These regulations shall apply in respect of payment of compensation for -
- (i) non compliance with the permitted voltage variations; and

- (ii) damages caused due to abnormalities of the electricity supply voltages and phase reversals.
15. The overall power quality of the electricity supply of a Distribution Licensee shall be assessed by monitoring the supply voltage at connection points through a voltage measurement programme and the customers or consumers shall be awarded compensation if the voltage measurements show that the power quality is below the specified levels.
16. The complaints made by tariff customers and consumers in respect of damages caused by abnormalities in the supply voltages and phase sequence reversals shall be investigated and affected parties shall be awarded compensation for consequential loss or damages.

Overall power quality assessment

17. In these regulations, the deviation of actual voltage level from its nominal voltage shall not exceed the tolerance values specified as follows:-

Declared (nominal) voltage	Voltage variation (steady state change)
400V/230V	± 6 %
11,000 V and above	± 6 %

Voltage measurement programme

18. In these regulations, the overall performance with respect to the adequacy of voltage level of customer installations shall be assessed through a voltage measurement programme at customer connection points.
19. Under the Voltage Measurement Programme, a Distribution Licensee shall be required to make at least:-
- one measurement for each MV/LV Bulk Customer **per** year; and
 - one measurement for every 1,000 LV Customers /Customer Service Centre **per** year.
20. The voltage level at a connection point shall be determined by recording its voltages over a 24 hour period. The average value of the rms voltages recorded in a 15-minute interval at a sampling rate not less than one sample/minute shall be considered as the voltage of an installation.
21. The voltage level of a location shall be considered to be within the specified levels, if the voltage so measured remains within the allowed tolerances during 90% of the time and the voltages measured during the balance 10% of the time, do not exceed 50% of the allowed tolerances.
22. The Distribution Licensee may use the facility for voltage measurement where the energy and demand meter installed at a Connection Point has the capability of measuring and recording the voltages.
23. In these regulations, when selecting customer installations for the voltage measurement programme for LV customers, the following shall be taken into consideration:-
- customers located in areas where voltage problems have been reported;
 - customers who have complained of voltage problems to the Licensee;
 - in case of LV customers, selection of customers equally from feeder ends and transformer ends; and
 - at least 50% of the randomly selected customers.
24. In these regulations,
- Distribution Licensee shall submit a list of selected locations for voltage measurement to the PUCSL quarterly;

- (b) the PUCSL may propose alternative locations;
 - (c) the programme shall be managed by the Distribution Licensee;
 - (d) the PUCSL may nominate a representative to witness the voltage measurements and data downloading, and in case PUCSL wishes to **nominate such person**, it shall give at least 10 days notice to the Distribution Licensee;
 - (e) the PUCSL may request the measurement results in electronic format;
 - (f) the Distribution Licensee shall inform the PUCSL of delays occurring in the implementation of the planned voltage measurement programme and the causes for such delays; and
 - (g) the PUCSL may request the measurement of voltages of a specific customer outside the planned voltage measurement programme, within a certain period, based on customer complaints and analysis done by the PUCSL.
25. The Distribution Licensee shall submit the quarterly report on voltage measurements before the last working day of the first month of the next quarter and the report shall comprise of the following: -
- (a) a list of locations categorized in accordance with the regulation 23;
 - (b) date and time periods of measurements;
 - (c) analysis summary of the results relating to-
 - (i) total number of locations of voltage measurements;
 - (ii) total number of locations falling outside the specified levels at each voltage level;
 - (iii) average monthly consumption based on the energy consumption of the last three months for each of the customer installations where voltage measurements were done, within the month of measurement; and
 - (iv) total energy supplied to the locations within the month, where the voltage was outside the specified levels;
 - (d) a report categorizing the locations with voltages falling outside the levels according to:-
 - (i) abnormality in voltage specific to a particular location;
 - (ii) abnormal voltages as a result of system inadequacy which shall affect the measured location and customers;
 - (iii) action proposed through the distribution system development plan or otherwise to improve the voltages;
 - (iv) list of locations where voltage improvement may take more than 12 months; and
 - (v) list of locations where voltages have been brought up to the required levels and the dates on which the corrections have been effected.
26. The Distribution Licensee shall maintain the voltage records for a period of two years.
27. These regulations shall not apply in respect of voltage imbalance and voltage fluctuations at this stage in keeping with the recommendations of the Distribution Code.

INDIVIDUAL POWER QUALITY ASSESSMENT

METHOD OF APPLICATION

28. If any person wishes to claim compensation in the event his appliances, equipment or property is damaged due to abnormal voltages or phase reversals in the Distribution System of a Distribution Licensee, and –
- (a) if the person making the claim for compensation is the tariff customer, he shall–
 - (i) report the incident immediately to the Customer Service Centre (CSC) or Call Centre quoting the account number and obtain a reference number; and
 - (ii) submit a claim for compensation according to Form A1 specified in the Schedule hereto, to the Area Engineer or Branch Manager of the Distribution Licensee within seven days of the occurrence of the incident.
 - (b) if the person making the claim for compensation is not the tariff customer, before using the electricity supply at a tariff customer's premises-
 - (i) such person shall obtain written permission from the tariff customer to use electricity supply at his premises;
 - (ii) the tariff customer shall inform the CSC or the Call Centre quoting the account number, intended period of usage by such person, the name and National Identity Card number of the person who intends to use the supply of electricity; and
 - (iii) inform the Distribution Licensee as required by paragraph (a) .
29. No person shall repair or dispose damaged items without the prior written approval from the relevant Distribution Licensee.
30. In these regulations, the tariff customer or consumer shall –
- (i) submit the completed Form A1, along with the quotations for repairs, receipts of purchases or other evidence in support of the claim for compensation; and
 - (ii) make any payment as required by regulations 36(a) and 37,
- to the representative of the Distribution Licensee by hand, electronic mail or by registered post.
31. The representative of the Distribution Licensee shall be the Area Engineer in the operational areas of the Ceylon Electricity Board (CEB) Licensees and the Branch Manager of the operational areas of Lanka Electricity Company (LECO).

INVESTIGATING PERSONNEL

32. In these regulations, claims for damages to appliances, equipment or property due to abnormalities in voltages or phase reversals shall be investigated either by an independent professional or by any member of the Distribution Licensee's staff.
33. The tariff customer or the consumer shall select the party he prefers to conduct the investigation.
34. In these regulations, the independent professional shall be an Accredited Chartered Electrical Engineer and the Distribution Licensee shall maintain a register of such professionals who have agreed to serve in this capacity within a specific area of the Distribution Licensee's operational area.

35. The member of staff of the Distribution Licensee who investigates an incident of loss or damage, shall be an Electrical Engineer, who shall not have any direct operational responsibilities in the geographical area where the customer installation in question is located.

Investigation - By Independent Professional

36. In these regulations –
- (a) The affected customer shall pay a deposit to the Distribution Licensee in accordance with the allowed charges, to obtain the services of an independent professional.
 - (b) (i) if the investigation reveals that the damage to appliances, equipment or property is caused by abnormal voltages or phase reversals of the Distribution Licensee's electricity supply, the deposit shall be refunded; and
 - (ii) where the investigation indicates otherwise, the deposit shall be used for the payment of professional fees.

Investigation - By Distribution Licensee

37. If the customer requests that the investigation to be carried out by any member of the staff of the Distribution Licensee, a fee or a deposit shall not be charged from the customer.
38. The Distribution Licensee shall not request any payment for the services rendered, even if the investigations reveals that the damage to property or appliances is not related to the distribution system supply voltage.

Processing of the Claim

39. On receipt of an application, the Distribution Licensee shall –
- (a) assign a reference number to the application with the date, time and the name of the Distribution Licensee's office that process the application; and
 - (b) acknowledge the receipt of the application and inform the tariff customer of the contact details of the officer and the reference number.
40. The Distribution Licensee shall check any previous claims by the customer for similar incidents and for any other information which can help in conducting an inquiry, and will make notes to that effect on the application.
41. The Distribution Licensee shall forward the application to the independent professional or a member of the staff within three working days.
42. The investigating officer shall –
- (a) make a prior appointment with the customer within three working days from the date he has consented to conduct the investigation;
 - (b) visit the installation on the appointed date;
 - (c) complete the investigation within two weeks in accordance with these regulations and the Licensee may allow a request for an extension for a maximum period of four weeks.
 - (d) submit a report to the Distribution Licensee within seven working days from the completion of the investigation.

43. Within one week of the receipt of the report, the Distribution Licensee shall communicate the outcome of the inquiry to the customer and pay compensation depending on the recommendations and conclusions stated in the report, provided the Distribution Licensee agrees with the same.
44. If the Distribution Licensee disagrees with the decision of the investigation officer, such Licensee shall inform the customer and the PUCSL about the decision and the PUCSL shall take steps to settle the dispute in accordance with the Electricity (Dispute Resolution Procedure) Rules.

Assessment of compensation

45. An inquiry to assess the damages caused, shall be conducted by an investigating officer in an impartial manner.
46. The investigating officer shall provide equal opportunities to the customer and the Distribution Licensee's representative who is in charge of the power supply in the area concerned, to present their cases.
47. The investigating officer shall not be prejudiced by the fact that previous claims have been made for damages and shall find out whether there are recurring problems in the electricity supply system or the customer is trying to take undue advantage of these regulations.
48. In recommending the compensation to be paid, the investigation officer shall –
 - (a) verify that the amount of compensation the person claims is commensurate with the damage(s) caused.
 - (b) make a comparison between the claim and the cost of replacing the person's appliances, equipment or property with items of substantially the same age, functionality and appearance or the cost of repairing the person's property to substantially the same functionality and appearance.

Disputes

49. If there is any dispute on the compensation recommended by the investigating officer or on the decision of the Distribution Licensee's representative, the aggrieved party may appeal to the PUCSL in accordance with the Electricity (Dispute Resolution Procedure) Rules.

COMMERCIAL QUALITY

Distribution system losses

50. In these regulations, distribution system demand loss is the difference between the total demand of the distribution system and the sum of the demands of the customers at any given instant.
51. The distribution system energy losses are the difference between the energy purchased by the Distribution Licensee from the Transmission Licensee plus the energy fed into its distribution system from the embedded generators, and the total energy sold and invoiced during a specified period.
52. The energy sales invoiced shall include those invoiced to the customers and the energy used for powering auxiliary devices used in the operation of the distribution system.
53. In these regulations, distribution system losses shall be classified as follows:-
 - (a) Technical Losses -
the energy consumed by the distribution system components when electrical energy is transported. These include the losses incurred by heating of conductors, transformer core losses and the consumption in the revenue meters; and
 - (b) Non Technical Losses -
the difference between the distribution energy losses and the technical losses, which mainly comprise losses owing to pilferage, revenue meter errors, meter tampering and leakages through way leaves.

54. In these regulations –
- (a) at the commencement of a Tariff Period, PUCSL shall determine and approve caps on technical losses and non technical losses for a Distribution Licensee’s medium voltage system and low voltage system separately in each case;
 - (b) the caps approved may be different for each calendar year;
 - (c) the Distribution Licensee shall be allowed to pass through the approved losses and recover the related cost from the end users through electricity tariffs in the manner stated in the Tariff Methodology; and
 - (d) the caps will serve as target performance indices for distribution loss management and a Distribution Licensee shall endeavour to maintain losses lower than the caps.
55. The Distribution Licensee shall submit the loss levels on once a month, once in three months, once in six months and yearly basis. Methods and assumptions which is used in the determination of the technical loss levels at different voltage levels are given in the Distribution Code.
56. (a) The PUCSL shall calculate the losses and establish the correctness of reported losses by the Licensee, using the sales and purchases information submitted by the Licensee through LISS.
- (b) If there is a discrepancy between the losses calculated by the PUCSL and those reported by the Licensee, the PUCSL shall inform the Licensee of such discrepancy within two weeks from the date of submission of the loss report by the Licensee.
 - (c) If the Licensee does not agree with the findings of the PUCSL under paragraph (b), the PUCSL and the Licensee shall take steps to resolve the issue.

Customer service performance standards

57. In these regulations, customer service performance shall be evaluated based on guaranteed standards.
58. (a) The Distribution Licensee shall be required to furnish the PUCSL with a report on its customer service programme, which shall include the target levels of performance for customer services listed in the Table 1 in the Schedule by first of December of every year;
- (b) The Distribution Licensee shall justify the basis for the determination of target levels and the PUCSL may propose changes to the same;
 - (c) The PUCSL shall propose modifications and amend the targets and inform the Licensee accordingly within three weeks from the submission of the report; and
 - (d) The report shall include the actions and proposals, the Distribution Licensee plans to implement to improve the customer services in the ensuing year and a comparison of the customer service levels achieved in the current year with the target levels of performance.

IMPLEMENTATION

Implementation stages

59. (a) Implementation of these regulations, except the Individual Power Quality Measurement, shall be carried out in three stages, namely –
- (i) preliminary stage;
 - (ii) adaptation stage; and
 - (iii) hands-on stage.

- (b) The completion of the three stages shall not be more than 36 months from the date of these regulations come into force.
- (c) The Individual Power Quality Measurement as set out in Regulation 28 shall be enforced, within six months from the date of these regulations come into force.

Preliminary stage

- 60. The Preliminary stage shall be applicable for a period of twelve months and the Distribution Licensee is required to assess and acquire the information systems, financial and human resources required to implement these regulations.
- 61. The distribution Licensee is required to submit reports to the PUCSL as set out in Regulations 65, 66 and 67.
- 62. The PUCSL shall examine such reports, and approve the same or accept subject to modifications, or reject, within a month from the date of submitting the report. The PUCSL shall provide opportunities to the Distribution Licensees to justify their reports, if and when the PUCSL decides to reject or modify the same.
- 63. The Distribution Licensee shall commence work in accordance with the work plans immediately after PUCSL conveys its decision.

Distribution system segregation

- 64. (a) The Distribution Licensee shall calculate the distribution system characteristics given in Regulation 6 for each Consumer Service Centre area and submit the results to the PUCSL within six months from the date of these regulations come into force.
- (b) The PUCSL shall study the information in paragraph (a) and decide on the appropriate levels for distribution system Feeder Classes, in consultation with the Distribution Licensee and inform its decision within three months.
- (c) The Distribution Licensee shall classify the distribution system into classes accordingly, allocate areas and forward the relevant information to the PUCSL for approval within two months from the date of decision of the PUCSL.
- (d) The PUCSL shall study the submissions and approve the Feeder Classes of the distribution systems and the segregation of distribution system shall be completed during the Preliminary Stage.

Overall and individual supply quality standards

- 65. (a) Each Distribution Licensee shall compile a report on “Collection of Data for the Calculation of Performance Indices and Setting up of Information Systems” and forward to the PUCSL within three months from the date of these regulations come into force.
- (b) The report, shall comprise (minimum requirements) as follows:-
 - (i) Registering the system interruptions to calculate the performance indices;
 - (ii) Classifying of the interruptions as required by the regulations;
 - (iii) Identifying customer groups affected by each interruption;
 - (iv) Collecting information required for calculating the energy not served;
 - (v) Procedures for collection of data (i-iv);
 - (vi) Information systems required to be established taking into consideration the capability of the existing information systems;
 - (vii) Increase in annual revenue requirements requested, if any, and justification of the same; and
 - (viii) Work plan for implementation with a target date of completion of all tasks within eight months from receiving approval from the PUCSL.

- (c) Within six months from the date of the PUCSL granting approval to the reports, as set out in regulation 61 each Distribution Licensee shall establish a database, to include all necessary data to compute the performance indices as specified in these regulations.
- (d) The PUCSL or any authorised representative appointed by PUCSL may inspect the databases and the Distribution Licensee shall extend the fullest cooperation to such person.

Power quality standards -overall standards

66. Each Distribution Licensee shall assess the adequacy of its human resources and availability of equipment to carry out the voltage measurement programme as described in these regulations and submit a report to the PUCSL requesting appropriate increases in the annual revenue requirements, with necessary justifications, within six months from the date of these regulations come into force.

Commercial quality standards

67. Each Distribution Licensee shall assess the adequacy of its human resources and availability of the information systems to implement the commercial quality standards as described in these regulations and submit a report to the PUCSL requesting appropriate increase in the annual revenue requirements, with necessary justifications, within six months from the date of these regulations come into force.

Adaptation stage

68. The Adaptation Stage shall be applicable for a period of twelve months. During this period, the PUCSL and the Distribution Licensee shall implement the performance measurement and assessment programmes. Tasks that need to be completed by the Distribution Licensees and the PUCSL under this stage are stated below:-

(a) Supply quality indices-overall and individual performance indices -

- (i) work on the calculation of the performance indices both overall and individual shall commence immediately after making the information systems operational.
- (ii) At the end of the six month period from the commencement of the calculations, each Distribution Licensee shall submit to the PUCSL its first set of results calculated on monthly basis, rolling quarterly basis, rolling biannually basis and rolling annually basis.
- (iii) The PUCSL shall compare the results submitted by the different Licensees to ensure that every Licensee shall adhere to these regulations for the determination of these indices.

(b) Power quality standards-overall standards -

- (i) each Distribution Licensee shall submit the list of locations for its voltage measurement programme within six months from the date of the commencement of the adaptation stage;
- (ii) The PUCSL shall ensure that the selected list is in accordance with the requirements specified in Regulations 13, 14, 15 and 16 and request the Licensee to amend the programme where necessary and grant approval within one month from the date of submission; and
- (iii) On receipt of approval from the PUCSL for the voltage measurement programme, the Distribution Licensee shall commence the same.

(c) Commercial quality standards -

- (i) each Distribution Licensee shall ensure that all necessary information systems are established for the purpose of the calculation of the customer service indices within three months from the date of the commencement of the adaptation stage;

- (ii) each Distribution Licensee shall complete Table I in the schedule and submit the same to the PUCSL within three months from the date of the commencement of the adaptation stage;
- (iii) the PUCSL shall study the information provided and grant approval for the guaranteed standards with necessary changes within two months from the date of receipt of information from a Distribution Licensee; and
- (iv) each Distribution Licensee shall submit the results in respect of commercial quality assessment.

Hands-on stage

69. Hands on stage, shall be applicable for a period of twelve months. The following tasks are required to be completed by the Distribution Licensees and the PUCSL during this period:-

(a) Supply quality overall and individual performance indices

- (i) the PUCSL shall study the results submitted by the Licensees with the objective of determining the appropriate levels for both overall and individual performance indices for different Feeder Classes, namely “Feeder Class A”, “Feeder Class B”, “Feeder Class C” and “Feeder Class D”.
- (ii) if any Distribution Licensee requests additional time for the completion of the tasks described above, the PUCSL shall study such requests and grant approval, if considered reasonable.
- (iii) after deciding on the appropriate levels in accordance with these regulations, the PUCSL shall calculate the compensation to be paid to the customers for non compliance using the formulae given in the Schedule .
- (iv) the PUCSL and the Distribution Licensee shall further adjust the specified levels for the individual and overall performance supply quality indices, studying the calculated results to enable the enforcement of these regulations for the improvement of the performance of the electricity industry, upon completion of the hands on stage.

(b) Power quality standards-overall standards

- (i) Each Distribution Licensee shall submit the results in accordance with Regulation 25.
- (ii) The PUCSL shall study the results and agree with the Distribution Licensee on the minimum number of locations where voltages have to be in accordance with the requirements specified in these regulations for each category in a feeder class within a Licensee’s operational area.
- (iii) By using the formulae given in the Schedule, the PUCSL shall calculate the compensation to be paid to the customers for non compliance in respect of power quality.
- (iv) The PUCSL and the Distribution Licensee shall arrive at acceptable levels for the individual and overall performance supply quality indices for the PUCSL to enforce on completion of the Implementation Stage.

(c) Commercial quality standards -

- (i) each Distribution Licensee shall calculate the performance indices in these regulations on a monthly basis and provide the same to the PUCSL through LISS;
- (ii) in respect of each customer standard, the Distribution Licensee shall evaluate its performance and submit a monthly report to the PUCSL;
- (iii) customers and consumers shall be compensated as set out in the Table 2 of Schedule for underperformance with respect to commercial quality;

- (iv) the distribution Licensees shall publish the contents of the Table 2 in the Schedule as specified by PUCSL in the daily newspapers and post it in the website of the Licensee to keep the customers and consumers informed of the compensation mechanism in respect of commercial quality;
- (v) Tariff Methodology includes the necessary provisions to ensure that the Distribution Licensees shall maintain the required standards in respect of the losses of the distribution system.

Non-compliance with performance targets

- 70. During the interim period of thirty six months, the PUCSL shall inform the Distribution Licensee, of the progress of the processing of relevant data and the results of the calculations of the compensation etc.
- 71. The failure of a Distribution Licensee to achieve the specified levels on performance shall not be considered as non-compliance:

Provided however, the following shall be considered as non compliance –

- (a) failure to submit any or all the information specified in these regulations at the specified time or period;
 - (b) provision of incomplete or inaccurate data or reports;
 - (c) failure to implement the procedures and information systems specified in these regulations within the specified periods;
 - (d) failure or unacceptable delays in the execution of the approved remedial actions and plans to improve quality of supply; and
 - (e) failure or unacceptable delays in correcting situations that imply inadequate power quality.
- 72. The Distribution Licensee's failure to achieve the approved levels of performance in respect of supply quality, power quality or commercial quality shall be considered as Licensee's failure to utilize the funds approved in the tariff filing process to achieve the required efficiency. If any Distribution Licensee fails to utilize allowed funds to achieve approved levels of performance, it shall be considered that funds allocated for efficiency improvements are available with the Licensee, and that amount shall be deducted from the allowed revenue for the succeeding year.
 - 73. The amount which is deducted shall be proportionate to the levels of the performance achieved and the formulae to be used for the determination of such amounts as specified in the Schedule .
 - 74. In these regulations, unless the context otherwise requires:-

“accredited Chartered Electrical Engineer” means a person qualified and experienced in design, installation and testing of electricity installations of retail and bulk customers, accredited by a due process established by the Distribution Licensee.

“active power or MW” means the product of voltage and current and cosine of the phase angle between them measured in units of

Watt (W)

kilowatt (kW) = 10^3 W

Mega Watt (MW) = 10^6 W

Giga Watt (GW) = 10^9 W

Tera Watt (TW) = 10^{12} W;

“active energy” means the electrical energy produced, flowing or supplied by an electrical circuit during a time interval, being the integral with respect to time of Active Power, measured in units of watt-hours or standard multiples thereof, that is :-

$$1000 \text{ Wh} = 1\text{kWh}$$

$$1000 \text{ kWh} = 1\text{MWh}$$

$$1000 \text{ MWh} = 1\text{GWh}$$

$$1000 \text{ GWh} = 1 \text{ TWh} = 10^{12} \text{ Wh};$$

“ac” means an alternating Current;

“Act” means Sri Lanka Electricity Act, No. 20 of 2009;

“allowed charges” means approved charges Licensees are permitted to levy from customers, prospective customers and the general public for carrying out work requested by them;

“Apparatus” means all equipment in which electrical conductors are used, supported or of which they may form part;

“Black Start” means the process followed to restore power after a total or a partial shutdown;

“breakdown” means an occurrence relating to equipment of the supply system which prevents its normal functioning;

“bulk customer” means a customer whose contract demand exceeds 42kVA;

“connected load” means aggregate of rated capacity of all apparatus including portable apparatus in the Customer’s premises which are supplied or declared by the Customer to be taking supply from the system. This shall be expressed in kW or kVA;

“connection point” means a point at which a User’s Plant or Apparatus connects to the Distribution System;

“consumer” means a consumer of electricity in Sri Lanka and includes a prospective customer;

“customer” means a tariff customer;

“Customer Service Centre” means an office of a Distribution Licensee responsible for operation and maintenance of the Licensee’s distribution system and attending to customer needs, in a defined geographical area;

“Contract Demand” means maximum real (kW) or apparent (kVA) power demand agreed to be supplied by the Licensee or Supplier as stated in the declaration made by the customer;

“declared voltage” means a voltage declared by a Distribution Licensee for the supply of electricity to a customer;

“demand” means the requirement for active power and reactive power unless ;

“disconnect” means the act of physically separating User’s (or Customer’s) equipment from the Distribution Licensee’s system;

“Distribution Code” means a Code produced by Distribution Licensees pursuant to conditions of the License;

“Distribution Licensee” means a person appointed through a license issued by the Commission for the operation of the Distribution System;

“distribution system” means the system consisting of lines owned or operated by a Distribution Licensee for the purposes of distribution of electricity from a grid substation to another substation, or to or from any External Interconnection, or to deliver to customers, including any plant and Apparatus and meters owned or used by the Distribution Licensee in connection with the distribution of electricity;

“energy” means quantity of electrical energy measured in units equal to one Kilowatt hour (kWh) or multiples thereof such as:-

1000 Wh = 1 kWh

1000 kWh = 1 MWh

1000 MWh = 1 GWh;

“embedded generator” means a single generator, or a group of generators, connected to the distribution network, at voltages between 400 V and 33 kV;

“feeder classes” means different classes of distribution systems, being parts of the Distribution System of a Distribution Licensee, within its Authorised Area of operations, and identified as “Feeder Class A”, “Feeder Class B”, “Feeder Class C”, and “Feeder Class D” as applicable. There could be more than one such class in a given Authorised Area.

“frequency” means the number of alternating current cycles per second (expressed in Hertz or Hz) at which a System is running;

“generating unit” means any Apparatus which produces electrical energy;

“generator” means a person or agency who generates electricity and who is subject to the Grid Code;

“Grid Code” means the Code implemented by Transmission Licensee in terms of License issued;

“High Voltage or HV” means Nominal Voltage exceeding 33,000 Volt;

“HV Apparatus” means High Voltage electrical apparatus forming part of a System;

“kVA” means kilovolt ampere;

“license” means a license granted by PUCSL for the purpose specified;

“Licensee” Licensee or License Holder is a person or business entity to whom a License or authorization is issued by PUCSL, under the Public Utilities Commission of Sri Lanka Act, No. 35 of 2002 and Sri Lanka Electricity Act, No 20 of 2009, for carrying out Generation, Transmission, Distribution and Supply of electrical energy;

“LISS or Licensee Information Submission System” means a facility through which all Licensees are required to submit the required information on line to the PUCSL;

“live” means electrically charged;

“LKR” means Sri Lanka Rupee;

“load” means the Active and Reactive Power, as the context requires, generated, transmitted or distributed, and all similar terms shall be construed accordingly;

“Low Voltage or LV” means nominal voltage exceeding 50 Volt and not exceeding 1000 Volt;

“metering” means Tariff Metering and Operational Metering;

“Metering Code” means that part of Grid Code or the Distribution Code identified as the Metering Code;

“medium voltage” means the nominal voltage exceeding 1000 Volt and not exceeding 33,000 Volt;

“MVA” means Mega Volt Ampere = 1000 kVA;

“operational area” means in relation to an electricity Distribution Licensee, the authorised area specified in the License;

- “operational boundary” means the boundary between the systems of any two entities in the total system or network. It divides the responsibilities and facilities between the entities and defines jurisdiction;
- “outage” means in relation to Distribution Licensee’s Distribution System, the removal of any part of the Distribution Licensee’s Distribution System due to breakdown or maintenance.
- “overall accuracy” means the combined accuracy of meters and instrument transformers whose secondary circuits feed the meters;
- “overloading” means the condition under which part of a system is subject to a demand in excess of the normal design rating of that part of the system and not directly due to system fault current;
- “party” means any person, corporate body, company, organization, authority, firm or association subject to the provisions of the Distribution Code;
- “permit to work (PTW)” means a form of declaration signed and given by a Senior Authorized Person to a person in charge of work to be carried out on any earthed high voltage apparatus for the purpose of making known to such person exactly what apparatus is dead, isolated from all live conductors, discharged, connected to earth, and on which it is safe to work;
- “power factor” means Ratio of active power (kW) to apparent power (kVA);
- “Power Purchase Agreement or PPA” means the Agreement entered into between a Generator and Transmission Licensee pursuant to which Transmission Licensee amongst other matters agrees to purchase from the Generator the capacity of its Generating Units;
- “power station” means an installation comprising one or more Generating Units (even where sited separately) owned and/or controlled by the same Generator, which may reasonably be considered as being managed as one Power Station;
- “protection” means provisions for detecting abnormal conditions on a System and initiating fault clearance and activating alarms and indications;
- “PUCSL” means Public Utilities Commission of Sri Lanka established under PUCSL Act, No. 35 of 2002;
- “reactive power or MVAR” means the product of voltage and current and the sine of the phase angle between them measured in units of volt-amperes reactive (VAr) and standard multiples thereof i.e 1000 VAr = 1kVAr
1000 kVAr = 1MVAR;
- “reactive energy” means the integral with respect to time of the Reactive Power measured in units of volt ampere hours reactive or standard multiples thereof, that is:
1000 VArh = 1 kVArh
1000 kVArh = 1 MVARh;
- “recorder” means an apparatus that stores a series of instantaneous readings at different times and intervals, and records the data obtained through a direct internal or external connection, feeding all such data into an instrument that allows such internal data to be retrieved at a future point in time;
- “retail customer” means a customer whose contract demand is less than 42kVA;
- “SLEA” means Sri Lanka Electricity Act, No. 20 of 2009;
- “substation” means an assembly of equipment including any necessary housing for the conversion, transformation, switching or control of electrical power;
- “Tariff Customer” means a person who requires a supply of electricity from a Distribution Licensee in pursuance of Section 25 of the SLEA and is supplied by the Distribution Licensee;

	Customer Service	Measure of Performance	Guaranteed standard										
			With no changes * required to the distribution system				With changes are required to the distribution system *						
			A	B	C	D	A	B	C	D			
5	Shifting of a meter	Number of working days upon making the payment for the shifting.											
6	Shifting of a pole	Number of working days upon making the payment for the shifting.											
7	Announcing scheduled outages	Number of working days of advance notice to be given to the customers											
8	Billing and payment queries	(a) Number of hours taken to answer the query. (b) Number of hours to rectify mistakes, if there are any											
9	Replacing the cut out fuses	Number of working days from the day of making the complaint.											
10	Attending to customer complaints other than those listed above and complaints on breakdowns	Number of working days after the receipt of the request.											

A- Feeder Class A; B-Feeder Class B; C- Feeder Class C; D- Feeder Class D

Compensation for under-Performance

Regulation 69(a) (iii) and (b) (iii)

OVERALL PERFORMANCE INDICES

At the end of a calendar year, PUCSL will calculate the funds Licensee has not effectively mobilized, using the formula given below:-

$$C_{m,i} = \text{Max} (C_{m,i}^{SAIDI}, C_{m,i}^{SAIFI})$$

where

$C_{m,i}$ Compensation in LKR to be paid by the Distribution Licensee “i” owing to non-compliance with the Overall Performance Indices for a distribution system feeder class “m” as defined in regulation 7, in the corresponding calendar year.

$Max (\quad)$: means the maximum of all the values indicated within the brackets.

In the above formula the parameters shall be as follows,

Compensation for SAIDI

$C_{m,i}^{SAIDI}$, expressed in LKR shall be calculated as follows

i. If the specified level for $SAIDI_m = \overline{SAIDI}_m$,

$$C_{m,i}^{SAIDI} = (SAIDI_{m,i} - \overline{SAIDI}_m) \times \frac{YearEnergy_{m,i}}{8760} \times SUPPLYCOST_{m,i}$$

If $SAIDI_{m,i} < \overline{SAIDI}_m$, $C_{m,i}^{SAIDI}$ will be zero.

Compensation for SAIFI

$C_{m,i}^{SAIFI}$, expressed in LKR shall be calculated as follows

ii. If allowed level of $SAIFI_m = \overline{SAIFI}_m$:

$$C_{m,i}^{SAIFI} = (SAIFI_{m,i} - \overline{SAIFI}_m) \times \left(\frac{SAIDI_{m,i}}{SAIFI_{m,i}} \right) \times \frac{YearEnergy_{m,i}}{8760} \times SUPPLYCOST_{m,i}$$

If $SAIFI_{m,i} < \overline{SAIFI}_m$, $C_{m,i}^{SAIFI}$ will be zero.

Where

$SAIDI_{m,i}$ and $SAIFI_{m,i}$: Actual (registered) values for each of such Overall Performance Indices for a particular distribution system feeder class “m” during the corresponding complete calendar year, for the distribution licensee “i”.

\overline{SAIDI}_m and \overline{SAIFI}_m : Approved specified level for each of the selected Overall Performance Indices for the relevant distribution system feeder class “m”.

$YearEnergy_{m,i}$: Annual Energy sales by the Distribution Licensee “i” to its customers in the distribution feeder class “m” during the year, expressed in kWh.

$SUPPLYCOST_{m,i}$: Weighted Average Cost of supplying a kWh to the customers, expressed in LKR/kWh, in the distribution feeder class “m”, for the distribution licensee “i”.

Compensation for EENS

$$C_{m,i}^{ENS} = \left(\frac{EENS_{m,i}}{ETOT_{m,i}} - \frac{\overline{EENS}_{m,i}}{\overline{ETOT}_{m,i}} \right) \times YearEnergy_{m,i} \times CENS_{m,i}$$

$$\text{If } \left(\frac{EENS_{m,i}}{ETOT_{m,i}} - \frac{\overline{EENS}_{m,i}}{\overline{ETOT}_{m,i}} \right) < 0, \text{ then } C_{m,i}^{ENS} = 0$$

$EENS_{m,i}$ Actual (registered) values of EENS for a distribution system feeder class "m" for distribution licensee "i" during the corresponding complete calendar year, expressed in kWh.

$$\left(\frac{\overline{EENS}_{m,i}}{\overline{ETOT}_{m,i}} \right)$$

: Specified ratio of EENS to total energy sales for a particular distribution system feeder class "m" for the distribution licensee "i" during the corresponding complete calendar year

$$C_{m,i}^{ENS}$$

: Compensation for exceeding the levels specified for EENS, for the distribution system feeder class "m" for the distribution licensee "i", expressed in LKR

$$CENS_{m,i}$$

: Cost of energy not supplied expressed in LKR/kWh for the distribution system feeder class "m" for the distribution licensee "i".

Compensation for MAIFI

PUCSL shall develop a suitable compensation mechanism in respect of MAIFI using the Yardstick regulation, with the results submitted by the Licensees during the implementation period.

INDIVIDUAL PERFORMANCE INDICES

1. Each Distribution Licensee shall compensate individual customers if the Individual Performance Indicators at the end of a calendar year exceeds the specified levels approved by PUCSL for such indicators.
2. Such compensation amounts shall be calculated using the following formula. The formulae below relate to the calculation of compensation to be paid to a customer owing to interruptions.

$$C_i^{CUST} = \sum_{j=1,J} ID_{i,j}^{CUST} \times \frac{YearEnergy_i}{8760} \times SUPPLYCOST$$

where

- C_i^{CUST} Compensation to be paid by the Distribution Licensee caused to customer “ i ” during the calendar year owing to exceeding the tolerance specified for any Individual Performance Indicator for such customer.
- J Total number of interruptions to customer “ i ”.
- $ID_{i,j}^{CUST}$ Duration of the Interruption “ j ” to customer “ i ”, expressed in hours
- $YearEnergy_i$ Energy sales to the customer “ i ” within the calendar year, expressed in kWh.
- $SUPPLYCOST$ Weighted average cost of supplying to the customers of the Distribution and Supply Licensee within the calendar year, expressed in LKR/kWh.

POWER QUALITY INDICES

1. Each Distribution Licensee shall be subjected to a reduction of the annual distribution revenue if a power quality index is not in compliance with the standard specified.
2. Such annual distribution revenue reductions shall be calculated using the following formula for each distribution system feeder class.
3. The formulae below give the calculation of compensation, if the voltage measurement program shows that customers are served at a voltage not in compliance with the standards specified,

$$C_m^{VOLT} = \left(\frac{LLV_m}{LTOT_m} - \frac{\overline{LLV_m}}{LTOT_m} \right) \times \frac{ELV_m}{ETOT_m} \times YearEnergy_m \times SUPPLYCOST$$

$$\text{If } \left(\frac{LLV_m}{LTOT_m} - \frac{\overline{LLV_m}}{LTOT_m} \right) < 0 \text{ then } C_m^{VOLT} = 0$$

- C_m^{VOLT} Compensation to be paid by the Distribution and Supply Licensee owing to provision of electricity supply at voltages different to the specified standards, for distribution system feeder class “ m ”, within a calendar year
- $LTOT_m$ Total number of locations where voltage measurements were conducted, for the distribution system feeder class “ m ”, within a calendar year
- LLV_m Total number of locations where the measured voltage falls outside the specified levels at each voltage level, for the distribution system feeder class “ m ”, within a calendar year
- $\left(\frac{\overline{LLV_m}}{LTOT_m} \right)$ Maximum acceptable ratio between the number of locations where the voltage falls outside the specified range, and the total number of locations measured, as defined by the Commission

ELV_m	Total energy supplied to customers whose power quality was tested for voltage variations during the year, in which voltages have been outside the specified levels in the year under consideration within a specified distribution system feeder class “m”.
$ETOT_m$	Total energy supplied to the customers whose supply quality was tested for voltage variations within the year, within a specified distribution system feeder class “m”.
$YearEnergy_m$	Energy sales by the Distribution and Supply Licensee within a calendar year to its customers during the year, for the distribution system feeder class “m”, expressed in kWh.
$SUPPLYCOST$	Weighted average cost of supplying to the customers of the Distribution and Supply Licensee within the calendar year, expressed in LKR/kWh.

COMMERCIAL QUALITY INDICES

Regulation 69 (c) (iii)

Each Distribution Licensee shall pay compensation to the consumers/customers at the rates given in Table 2, if it fails to achieve the specified levels (SL) in respect of the commercial quality standards published by a Distribution Licensee.

Table 2

Compensation for Underperformance on Commercial Quality

<i>Customer Service</i>	<i>Performance Standard</i>	<i>Compensation to consumer/customer</i>
1 Provision of an estimate for a new electricity supply	Guaranteed period to render the service.	LKR 100 per each day of default, up to a maximum of LKR 1000
2. Provision of a new electricity supply	Guaranteed period to render the service.	LKR 200 per each day of default, up to a maximum of LKR 2000
3 Reconnection of electricity supply after a disconnection for non payment.	Guaranteed period to render the service.	LKR 500 per each day of default, up to a maximum of LKR 5000
4 Testing of revenue meters	Guaranteed period to render the service.	LKR 50 per each day of default, up to a maximum of LKR 500
5 Shifting of a meter	Guaranteed period to render the service.	LKR 50 per each day of default, up to a maximum of Rs 500
6 Shifting of a pole	Guaranteed period to render the service.	LKR 50 per each day of default up to a maximum of LKR 500

<i>Customer Service</i>	<i>Performance Standard</i>	<i>Compensation to consumer/customer</i>
7 Announcing scheduled outages	Guaranteed period of notice.	LKR 50 per/affected customer/ each day of default, up to a maximum of LKR 500
8 Billing and payment queries (a) Number of hours taken to answer the query. (b) Number of hours to rectify mistakes, if there are any	Guaranteed period to render the service.	a. LKR 10/hour exceeding the guaranteed standard up to a maximum of LKR 500. b. LKR 10/hour exceeding the guaranteed standard up to a maximum of Rs 500
9 Replacing the cut out fuses	Guaranteed period to render the service.	LKR 500 per each day exceeding the guaranteed standard to provide the service, up to a maximum of LKR 2000.
10 Attending to customer complaints other than those listed above and breakdowns	Guaranteed period to render the service.	LKR 25 per each day exceeding the guaranteed standard to provide the service, up to a maximum of LKR 2000.

Regulation 28.

Form A1:

CLAIM FOR DAMAGES OWING TO ABNORMAL SUPPLY VOLTAGES/ PHASE REVERSALS

This form is to be used by a customer when making a claim for damages or losses caused to his property/equipment/appliance owing to voltage variations exceeding the permissible limits or phase reversals. Compensation for the claims will be made in accordance with the Electricity (Distribution) Performance Standards Regulations No... made under the Sri Lanka Electricity Act No 20 of 2009.

Tariff customer Information	
Name	
Address	
Customer service Centre (If known)	
Email address	
Telephone(Home).....(Office).....(Mobile)
Electricity supply details	
Customer account number	
Bulk customer or Retail customer	
Details of the damages caused	
Date of Incident	
Time of Incident	
Brief description ¹	
Details of prior claims	
Total claim ²	
Your preference for the inquiry to be held by	Independent Professional ³ <input type="checkbox"/> Licensee Staff <input type="checkbox"/>
Table 1	
Item name	
Item manufacturer/supplier	
Model No	
Year of purchase and purchase price ⁴	
Amount claimed for replacement claimed ⁵	
If “Repair” – Amount claimed ⁶	

1. Please provide details requested in the Table 1 for each item for which damages are claimed.
2. Please give a break-up of the compensation claim. No items should be disposed or repaired without written permission from the Licensee.
3. A payment of a deposit of LKR is required. This will be refunded, if inquiries reveal that the damages to appliances/property have been caused by abnormal voltages/phase reversals.
4. A receipt of purchase is the preferred evidence of purchase price. If you do not have a receipt, you may estimate the purchase price.
5. Attach a quotation from a reputed supplier for the replacement.
6. Attach any evidence, copies of quotes for repairs to support your claim.

I declare that to the best of my knowledge the information provided above is true in every detail and that all relevant information has been provided. I declare that I am the tariff customer of the property identified in this Claim Form. I understand that this claim may not be processed or approved if the information I provide is insufficient or found to be false.

Signature of the Customer

Date:

<p>For office use : Acknowledgement of Receipt</p> <p>Date & time of receipt:</p> <p>Reference No:</p> <p>Name & Designation of Officer:</p> <p>Signature:</p> <p>Licensee Office Address:</p> <p>Telephone/Email address:</p>

Regulation 19

Forms for the Voltage Measurement Programme

Voltage Measurement Programme - Retail Customer List

Licensee	Quarter	Retail customers	Submission date
Area or Branch / Customer Service Centre (CSC)	Customer location	Account number	Selection criteria (a,b,c,d,e)
Total no of retail customers of CSC		No of Locations/ CSC total retail customers	

- (a) Customers located in areas where voltage problems have been reported:
- (b) Customers who have complained of voltage problems to the Licensee:
- (c) Feeder end customers:
- (d) Transformer end customers:
- (e) Randomly selected customers:

Voltage Measurement Programme - Bulk Customer List

Licensee	Quarter	Bulk customers total	Submission date
Area or Branch/Customer Service Centre	Customer location	Account number	Bulk Customer Type (MV or LV)
Total no of customers		% of the total bulk customers	

Quarterly report on Voltage Measurement

Licensee	Quarter		Submitted date						
Location	Account number	Average monthly Consumption (kWh)	Measured date and time period		Deficiency		Cause and Correction		
			Date	Period	High(H) /Low(L) Indiv (I) Group (G)	Date corrected	>12 months	System inadequacy	Improve ment*

* Development Plan (D), Phased balancing (P), Other measures (M)

Analysis Summary

Licensee	Quarter	Submitted date	
Total no of locations	Locations falling outside the limits	Energy consumption per month	
		All locations tested	Locations where voltage is not within accepted levels

REGULATIONS MADE UNDER SECTION 54 OF THE SRI LANKA ELECTRICITY ACT, No. 20 OF 2009

BY virtue of the powers vested in me by Section 54 of the Sri Lanka Electricity Act, No. 20 of 2009, and on the recommendation of the Public Utilities Commission of Sri Lanka, I, Ranjith Siyambalapitiya, the Minister of Power and Renewable Energy, do by this order make the undermentioned Regulations on Electricity (Utility-Driven Demand Side Management).

RANJITH SIYAMBALAPITIYA,
Minister of Power and Renewable Energy.

13th July 2016.

L.D.B 3/2009.

Sri Lanka Electricity Act, No. 20 of 2009

REGULATIONS made by the Minister of Power and Renewable Energy on the recommendation of the Public Utilities Commission of Sri Lanka, under section 54 of the Sri Lanka Electricity Act, No. 20 of 2009 read with paragraphs (b) and (h) of section 3 of the aforesaid Act.

Regulations

1. These regulations may be cited as the Utility-Driven Demand Side Management (DSM) Regulations No. of 2016.
2. (a) Each distribution licensee shall prepare and submit to the Commission, a Technical and Economic Potential Evaluation Report in every five years.
 - (b) The technical and economic potential evaluation report shall include -
 - (i) the target consumer and end user segments for DSM Programmes which enables to prepare the necessary database;
 - (ii) an estimate of the market potential for specific technologies and their applications; and
 - (iii) programme evaluation procedures through which the key performance indicators are identified.
 - (c) Each Distribution Licensee shall prepare and submit to the Commission the first Technical and Economic Potential Evaluation Report within twelve months from the date of publication of these regulations;
3. (a) The Commission shall within two months from the receipt of such Technical and Economic Potential Evaluation Report, review such report.

(b) If any amendments are required, Commission shall advise the Distribution Licensee to revise accordingly.

(c) The Commission shall approve the revised report within two months from the receipt of it.

4. (a) Upon obtaining the approval for such evaluation report, the Distribution Licensee shall prepare the DSM Master Plan and submit it to the Commission for its review.

(b) If any amendments are required, the Commission shall direct the Distribution Licensee to revise it.

(c) The Commission shall approve the revised Master Plan within two months from the receipt of it.

5. (a) Upon obtaining the approval for such Master Plan, the Distribution Licensee shall prepare the DSM Programme, containing the specified time frame, budget, expenditure, challenges and mitigatory measures to be adopted, for a period of one year and submit it to the Commission.

(b) Within two months of receipt of the DSM Programme, the Commission shall review the same and may recommend the Distribution Licensee to revise the Programme, if necessary.

6. (a) Upon obtaining the approval for such DSM Programme, the Distribution Licensee shall implement the Programme and prepare a Project Report (PR) for each DSM Project at the completion of the respective project, based on the guidelines issued by the Commission.

(b) The Distribution Licensee shall revise such Project Report after been reviewed by the Commission.

7. In these regulations, unless the context otherwise requires :-

“Act” means the Sri Lanka Electricity Act, No. 20 of 2009;

“Commission” means the Public Utilities Commission of Sri Lanka, established under the Public Utilities Commission of Sri Lanka Act, No.35 of 2002;

“Distribution Licensee” shall have the same meaning as is assigned to it in the Sri Lanka Electricity Act.