

**GOVERNMENT OF SIKKIM
ELECTRICAL INSPECTORATE**

FORM OF APPLICATION SEEKING APPROVAL TO COMMENCE POWER SUPPLY IN ***SUB-STATION*** EXCEEDING 650 VOLTS REQUIRED FOR THE PURPOSES OF ACCORDING APPROVAL UNDER REGULATION 43 OF THE CENTRAL ELECTRICITY AUTHORITY (MEASURES RELATING TO SAFETY & ELECTRIC SUPPLY) REGULATIONS, 2010.

NOTE : 1) No Electrical installations or apparatus of voltage exceeding 650 volts shall be energized without written approval from the Inspectorate of Electricity.

2) Annexure IIB need not be submitted where only one apparatus of voltage exceeding 650 volts equipment, such as transformer is installed.

3) The Electrical Inspector may require certain additional tests to be carried out before authorizing the supplier to commence supply.

4) This report shall be submitted in duplicate.

1. Name and address of owner :
of the installation/sub-station

2. Name and address of supplier :

3. Name / identification of the :
transmission line / feeder
supplying power to the sub-
station / installation

4.1 Voltage of the sub-station : Primary..... KV
Secondary..... KV

4.2 Capacity of Transformer : KVA/MVA

(In case more than one transformer and/or equipment are installed a detailed list is required to be submitted in Annexure II B)

5. Type of sub-station, Indoor/Outdoor :
Platform mounted /Pole mounted etc.
(To specify)

6. Identification of the sub-station :

6.1 Name of the Sub-station :

6.2 Purpose & type of load to be supplied :

6.3 New/ renovation/ augmentation work :

6.4 Location of the Sub-station :

- 6.4.1 District :
- 6.4.2 Full address of the Sub-station :
- 7. Specification of the transformer :
- 7.1 Type :
- 7.2 Make :
- 7.3 Winding configuration :
- 7.4 Serial number :
- 7.5 Rating/ Capacity :
- 7.6 Voltage at no load : HV..... LV.....
- 7.7 Current rating : HV.....LV.....
- 7.8 Percentage impedance :
- 7.9 Total Oil Capacity :
- 7.10. Di-electric strength of oil used :KV at..... mm gap.
(A copy of Manufacturer's test report is required to be enclosed)
- 7.11 Insulation test results
- 7.11.1 Between HV&LV :
- 7.11.2 Between HV& Earth :
- 7.11.3 Between LV& Earth :
- 7.12 Continuity Test Results (L.V. Side with neutral earth connected) :
- 7.12.1 Between Neutral & Earth :
- 7.12.2 Phase 1 and Earth :
- 7.12.3 Phase 2 and Earth :
- 7.12.4 Phase 3 and Earth :
- 7.13 Details of insulation tester used :
High Voltage Test (7.11.1 to 7.11.3) : Low Voltage Test (7.12)
- a) Voltage rating : a) Voltage rating :
- b) Make : b) Make :
- c) Serial No : c) Serial No :

(Details about each equipment is to be furnished in Annexure II B in case more than one transformer or other equipment are installed)

8. Type of protections used:

- a) HV side :
- b) LV side :

Note: In case circuit breakers are used, details should be submitted in Annexure-II & III

9. Size and specification of conductors / cables:

- a) HV side :
- b) LV side :

10. Indicate type of platform constructed for: pad mounted sub-station:

11. Incase of out door Sub-station :
(Except pole mounted Sub-station)
Indicate if efficiently protected fencing
is used as per Regulation 33 with type
and mention the height of the fencing :

12. In case of indoor Sub-station; if proper soak pits are provided for drainage of oil which may leak, to prevent spreading of accidental fire as per provision of Regulation 44:
Details of such arrangements, if any :

13. Mention if cable trench inside the Sub-stations are filled with sand or similar non-flammable materials or covered with non-flammable slabs.

14. Are the conductors and apparatus are so arranged that they may be made dead in section and work carried out in each section by authorized person without any danger ?

15. Have lightning arrestors been provided:

- a) Type of LA used & K.A.rating :
- b) Have these been properly earthed? :

16. Whether any provision is made to protect the sub-station from direct lightning stroke. If so, furnish details of such protection.

17. Have all the equipments in the sub-station been earthed as per provision of Regulation 41, 42 & 48 of the CEA Regulations, 2010? Furnish details of earthing in Annexure-I along with drawing showing details of earth electrodes and manner.

18. Furnish details about arrangements made/ equipment provided to control fire in the electrical equipments.

19. Has suitable provisions been made for immediate and automatic discharge of every static condensers on disconnection as required vide Regulation 51 of the CEA Regulations, 2010.

20. Name of person/ agency that will be responsible for operation and maintenance of the substation with authority/competency.
21. Installation and testing done:
(Cancel item which are not applicable)
 - 21.1 By the supplier as a departmental work.
 - 21.2 By the Contractor engaged by supplier
 - 21.3 By the Contractor engaged by the owner/consumer/occupier. (In case of the work is done by a Contractor, a copy of Contractor License and Supervisor license will have to be enclosed)
22. The following material/documents are to be enclosed.
 - 22.1 Details of earthing in Annexure-I.
 - 22.2 (a) List of equipment Annexure IIA
(b) Test Report of individual equipment (Annexure – IIB)
 - 22.3 Single line diagram of the installation.
 - 22.4 Front & Plan view and equipment layout with dimensions and clearance from nearby structures/ buildings.
 - 22.5 A sketch showing earthing system.
 - 22.6 In case of consumer's installation only
 - (a) Copy of load sanction letter
 - (b) Copy of agreement(s) with supplier regarding installation and maintenance of the substation.

understand that the works was done under my direct supervision, complying with all the provisions of the Central Electricity Authority (measures relating to safety & electric supply)

Regulations, 2010/relevant BIS standards/safety codes.

Date	:	Signature	:
Place	:	Name	:
		Seal	:
		Supervisor's Certificate No.	

(to be signed by an official of the Supplier/ Contractor/ Supervisor under whose direct supervisions the installation and testing works were done with registration Number of Supervisors Certificate indicating qualifying parts and designation)

Countersigned by:

Designated officer of Supplier

Electrical Contractor with seal

Signature :

Name :

Signature :

Name :

Contractor License No. :

Witness: (Owner of the installation. Not necessary for Supplier's installation)

Signature :

Name :

Address :

NOTE: To be submitted in duplicate.

ANNEXURE-I

**TEST REPORTS FOR INITIAL CHARGING OF ELECTRICAL INSTALLATIONS OR
APPARATUS OF VOLTAGE EXCEEDING 650 VOLTS INSTALLATIONS/ EARTHING**
(Regulation 41, 42 & 48 of the CEA Regulations, 2010)

Name of installation and location :

NOTE : General condition of soil at the time of taking the reading should be mentioned in the remark column (Dry - wet – etc.)

Sl No	Earthing for(mention identification in drawing or in the form)	Size and material of earthing conductor paths	No.of independent Earthing conductor path	Size and materials of electrode	Impedance of individual Electrode in Ohms	Mention whether Electrodes are inter connected	Total Impedance of system in Ohms	Remarks
1	2	3	4	5	6	7	8	9

Measurement taken by:
Date:

Authorized Officer

Full Designation & Address with office seal

ANNEXURE – II

List of apparatus of voltage exceeding 650 volts /installation/equipment

Name of Sub-station/installation & Location

Sl No	Equipment	Rating/Specification	Make & Sl. No.	Remarks

Note : Certified copy of type test/Acceptance test certificates to be furnished on all equipment

Signature and seal with date :

ANNEXURE – III

TEST REPORT OF APPARATUS OF VOLTAGE EXCEEDING 650 VOLTS INSTALLATION

Note. This proforma should be filled in separately for all equipments, e.g. Transformers, Breakers, CT, PT, L.A, Isolators , Drop out fuse ,GOAB etc.

- 1. Identification of Sub-Station :
 - 1.1 Name :
 - 1.2 Location :
- 2. Equipment to be energized :
- 3. Equipment details :
 - 3.1 Name :
 - 3.2 Rating : Make_____ Sl. No._____
Breaking Capacity
 - 3.3 Voltage at No Load : HV_____ LV_____
 - 3.4 Current rating : HV_____ LV_____
 - 3.5 Percentage impedance :
 - 3.6 Oil Capacity :
 - 3.7 Manufacture’s test report on equipment to be enclosed :
 - 3.8 Insulation resistance :
 - 3.8.1 Between phase to earth (HV/incoming) :
 - 3.8.2 Between phase to earth (LT/Outgoing) :
 - 3.8.3 Between HV/LV (As may be applicable) :

Instrument used in Testing

- (a) Voltage rating :
- (b) Make :
- (c) Serial No. :

Date :

Place :

Tested by (Signature) :
Name :
Designation :
Authority/Competency :