## BANGLADESH RURAL ELECTRIFICATION BOARD

### **PBS INSTRUCTION 100-05**

SERVICING, REPAIRING AND TESTING OF EQUIPMENT/INSTRUMENT OF ELECTRICAL NETWORK SYSTEM

## BANGLADESH RURAL ELECTRIFICATION BOARD PBS INSTRUCTION 100-05

Approval Date: 20/06/1984 Revision Date: 19/02/2020

## SUBJECT: SERVICING, REPAIRING AND TESTING OF EQUIPMENT/ INSTRUMENT OF ELECTRICAL NETWORK SYSTEM

#### I.PURPOSE

To set forth BREB policy and procedure with respect to servicing, repairing and testing of sub-station and electrical line equipment/ instruments, other equipment/instruments centrifuging of transformer oil of BREB, PBS and parties other than BREB and PBS.

#### II. GENERAL

Different types of sub-station and electrical network equipment/ instruments, electronic and communication equipment/ instruments and other equipment/ instruments are being repaired and tested in the BREB Workshop. Transformer oil of various equipment are also being tested in that workshop. It is recognized that in order to keep the electrical network in operative condition servicing/ repairing/ testing facilities is essential and to continue provide serve required fees to be paid.

#### III. POLICY

A. Eligible Organizations to Receive Service at different places and PBS

Workshop

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BREB, PBS, other stakeholders and its consumers are eligible to receive services from the System Operation Workshop and BREB Central Workshop on priority basis. BREB Contractors, Consultants and other organization may receive such services, subject to availability of repairing and testing facilities at that time. Assigned date will be informed to the indenter.

#### B. Procedure

BREB/ PBS/ other organizations will place indent for servicing, repairing and testing of their equipment/ instruments to the workshop in prescribed proforma to be developed by the respective Workshop. The workshop will designate date to undertake the works within seven (7) days of receiving such indent.

#### C. Transportation and Delivery

BREB/ PBS/ PBS's Consumers/ Consultant/ Contractor/ other organizations hereinafter mentioned as indenter will deliver their equipment/ instruments at a pre-designated delivery point/ workshop. The workshop will prepare a receiving report and job order/ work order in triplicate, obtain signature of the indenter/ its representative and handover a copy of the workshop to the indenter/it's representative and handover a copy of receiving report to the indenter mentioning joint inventory date of services/ repaired/ tested equipment/ instruments. On the scheduled joint inventory date inventory on the equipment/ instruments will be performed by the committee comprising of workshop and indenter's representatives. The committee will prepare a list of required spare parts/ materials and services/ repair.

#### D. Billing and Payment Procedure

The committee will prepare an estimate based on price of spare parts/ materials &

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services/repair. After approval of the estimate the representative of indenter will collect the estimated amount for purchasing/ fabricating the required parts & services/repair. The indenter will then pay the estimated expenditure as advance. The repair works like assembly, fitting, fixing and testing etc. will be done in the workshop. After completion of services/ repair works the equipment/ instruments will be delivered to the indenter or his/ her representative. The purchase of spare parts/ materials/ fabrication to be performed as per applicable rules and regulations of BREB/ PBS under the light of PPA & PPR. Certification and payment of Bill/ Vouchers for purchasing of spare parts, materials etc. shall be made as per applicable rules and regulations. Bill for servicing, centrifuging and testing of equipment/ instruments/oil will be debited to respective PBS by BREB Accounts Directorate, those received during the period(month) at a proportionate rate as described in Appendix-"A". This bill will be prepared by workshop. The rate schedule may be reviewed by competent authority time to time.

#### E. Estimate Approving Authority

The following authority will approve estimate of Services/ repair of equipment/ instruments used in electrical network system up to respective threshold.

SI No.	Approving Authority	Approving Threshold
1	DD(Tech)/ Executive Engineer, System Operation Workshop/ Zonal office of Executive Engineer	50,000.00
2	Director, System Operation	2,00,000.00
3	Chief Engineer (Planning & Operation)	5,00,000.00
4	Member (Planning & Development)	10,00, 000.00
5	Chairman	Full Authority

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#### F. Miscellaneous cost

All the miscellaneous expenditure incur in the workshop like; salary of skilled labor, maintenance, and cost of fuel for crane, fork-lift, pick-up, filter machine etc. & cost for workshop facility creation such as, purchasing of testing equipment/ required materials/ services &repairs, telephone bill, gas bill, electricity bill and maintenance of other equipment/ instruments shall be born from special imprest fund/ advance from BREB/ direct payment from BREB. This cost will be debited among the PBSs those received service during the period(month) at a proportionate rate as described in Appendix-'A'.

#### G. Service Rates

Unit rate schedule for servicing/ repairing (excluding spare parts)/testing by System Operation Workshop are given in Appendix- 'A'. This rate schedule shall be reviewed every two years or as and when required by a committee constituted as under. Member (P&D) will approve the reviewed rate schedule of the committee.

1. Chief Engineer (P&O)

Convener

2. Director System Operation

Member

3. Director Finance

Member

4. Deputy Director Workshop

Member- Secretary

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Asst. Secy. (Board), BREB.

# RATE SCHEDULE FOR SERVICING/ REPAIR/ TESTING EQUIPMENT AT SYSTEM OPERATION WORKSHOP

#### OR

#### CENTRAL WORKSHOP OF BREB

#### Rate Chart

	Description	Unit	Unit Rate	
	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
A.	Transformer Oil Centrifuging	Barrel	1,000.00	4,000.00
		Litter	5.00	20.00
B.	Di-Electric Test of Transformer	Each	120.00	500.00
C.	Ten Delta Dissipation Test	Each	500.00	2,000.00

#### D. Equipment Servicing & minor repairing:

Sl	Description	Unit	Unit Rate	
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	Single Phase ACR	Each	1,000.00	2,000.00
2	Three Phase ACR	Each	1,500.00	2,500.00
3	Voltage Regulator	Each	5,000.00	10,000.00
4	Single Phase Distribution Transformer	Each	1,500.00	2,500.00
5	Single Phase Power Transformer	Each	10,000.00	18,000.00
6	Three Phase Power Transformer	Each	15,000.00	35,000.00
7	Three Phase Distribution/ Station Transformer	Each	3,000.00	5,000.00

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## E. Major Overhauling/Repairing:

SI	Description	Unit	U	Init Rate
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	Single Phase ACR	Each	3,000.00	5,000.00
2	Three Phase ACR/ OCB	Each	4,000.00	6,000.00
3	Voltage Regulator	Each	15,,000.00	20,000.00
4	Single Phase Distribution Transformer (5, 10, 15 KVA)	Each	2,500.00	3,000.00
5	Single Phase Distribution Transformer (25, 37.5, 50 KVA)	Each	3,000.00	4,000.00
6	Single Phase Distribution Transformer(75, 100, 167 KVA)	Each	4,000.00	6,000.00
7	Single Phase Power Transformer	Each	25,000.00	35,000.00
8	Three Phase Power Transformer	Each	40,000.00	55,000.00
9	Three Phase Distribution/ Station Transformer	Each	12,000.00	20,000.00

#### F. Heating & Drying:

Sl	Description	Unit	Unit Rate	
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	Single Phase Distribution Transformer (5, 10, 15 KVA)	Each	1,000.00	2,000.00
2	Single Phase Distribution Transformer (25, 37.5, 50 KVA)	Each	2,000.00	3,500.00
3	Single Phase Distribution Transformer(75, 100, 167 KVA)	Each	3,000.00	5,000.00
4	Voltage Regulator	Each	15,000.00	20,000.00
5	Single Phase Power Transformer	Each	20,000.00	30,000.00
6	Three Phase Power Transformer	Each	25,000.00	40,000.00
7	Three Phase Distribution/ Station Transformer	Each	8,000.00	15,000.00

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## G. Equipment Testing Charge:

SI	Description	Unit	Un	it Rate
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	Single Phase ACR	Each	1,000.00	1,500.00
2	Three Phase ACR/ OCB	Each	2,000.00	3,000.00
3	Voltage Regulator	Each	2,000.00	3,000.00
4	Single Phase Distribution Transformer	Each	1,000.00	1,500.00
5	Single Phase Power Transformer	Each	4,000.00	5,000.00
6	Three Phase Power Transformer	Each	6,000.00	7,500.00
7	Single Phase Energy Meter	Each	100.00	500.00
8	Three Phase Energy Meter (Without Demand)	Each	300.00	7,50.00
9	Three Phase Energy Meter (With Demand)	Each	400.00	1,000.00
10	Current Transformer (11 kV)	Each	1,000.00	2,000.00
11	Potential Transformer (11 kV)	Each	1,000.00	2,000.00
12	Current Transformer (33 kV and above)	Each	1,500.00	3,000.00
13	Potential Transformer (33 kV and above)	Each	1,500.00	3,000.00

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### H. Service Charge:

SI	Description	Unit	Unit Rate		
No	of Works		For BREB & PBS	For Other	
			(BDT)	Organization (BDT	
1	HF Wireless Set	Each	1,000.00	1,500.00	
2	VHF Wireless Set	Each	1,000.00	1,500.00	
3	Handitalky	Each	750.00	1,000.00	
4	HF Power Supply Unit	Each	250.00	300.00	
5	VHF Power Supply Unit	Each	250.00	300.00	
6	HF Battery Charger	Each	250.00	300.00	
7	VHF Battery Charger	Each	250.00	300.00	
8	Control Panel of Voltage	Each	1,000.00	2,000.00	
	Regulator				
9	HF/ VHF Microphone	Each	100.00	200.00	
10	Oil Testing Machine	Each	750.00	1,000.00	
11	Meter Testing Bench	Each	1,000.00	1,500.00	
12	Digital Standard Meter	Each	750.00	1,500.00	
13	Power Factor Meter	Each	200.00	250.00	
14	Potential Discharge Meter	Each	200.00	250.00	
15	Insulation Resistance Tester	Each	200.00	250.00	
16	Ampere Meter	Each	200.00	250.00	
17	Computer	Each	1,000.00	1,200.00	
18	Computer Printer	Each	500.00	600.00	
19	3-Phase ACR Control Panel	Each	1,000.00	2,000.00	

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#### I. Repair and Testing:

SI	Description of Works	Unit	Unit Rate	
No			For BREB & PBS (BDT)	For Other Organization (BDT)
1	Single Phase Energy Meter	Each	125.00	500.00
2	Three Phase Energy Meter (Without Demand)	Each	350.00	1,000.00
3	Three Phase Energy Meter (With Demand)	Each	600.00	1,200.00

#### J. Installation of Equipment:

SI	Description	Unit Unit R		Rate
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	HF Set	Each	2,000.00	3,000.00
2	VHF Set	Each	1,500.00	2,000.00

#### K. Miscellaneous:

SI	Description	Unit	Unit Rate	
No	of Works		For BREB & PBS (BDT)	For Other Organization (BDT)
1	Small Item	Each	50.00	50.00
2	Medium Item	Each	100.00	100.00
3	Large Item	Each	200.00	200.00

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