

**SHAHEED BENAZIR BHUTTO UNIVERSITY, SHERINGAL,  
DIR UPPER, KHYBER PAKHTUNKHWA PAKISTAN.**

- **BUILDING ITEM:** **CONSTRUCTION OF EXTERNAL ELECTRICAL WORKS**
- **PROJECT NAME:** **“DEVELOPMENT OF UNIVERSITY OF DIR SHERINGAL”.**
- **EXECUTING AGENCY:** **“SHAHEED BENAZIR BHUTTO UNIVERSITY, SHERINGAL”.**
- **SPONSORING AGENCY:** **HIGHER EDUCATION COMMISSION ISLAMABAD.**
- **FUNDING AGENCY:** **PLANNING COMMISSION, GoP.**

**Volume-III**

**Tender/Contract Documents**

**(Bill of Quantities/Priced Bid)**

**October 2020**



ISO 9001 Certified

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Project Director/  
Director of Works  
/Directorate of Planning &  
Development.  
Shaheed Benazir Bhutto  
University Sheringal Dir  
Upper

## **BILL OF QUANTITIES (PREAMBLE)**

1. The items mentioned in Bill of Quantities consist of furnishing all plant, labour, Equipments, Machinery, appliances, materials, fittings, fixtures and fabrication, erection, installation required for completing the items/works and the works shall be done in accordance with bill of quantities, specifications and Drawings complete in all respect. The rate includes all taxes, GST, other Government taxes, duties, levies applicable as per law of state set forth or implied in the Contract, except for the amount reimbursable (if any) under the contract.

Unless otherwise stipulated in the Conditions of Contract, the rates and prices entered by the bidder shall not be subject to adjustment during the performance of the Contract.

2. Complete description of items of work in Bill of Quantities, general direction, conditions and limitation of work, location and place of work, applicable methods, means to be adopted, type and quality of materials use of tools, plant and machinery are not necessarily mentioned in the description column of Bill of Quantities. These shall be referred to in accordance with Specifications and drawings.

3. The tender may ensure himself for the correctness of quantities and application of the individual items for works as per Drawings, Specifications and Contract Documents.

4. The Quantities contained in the Bill of Quantities are approximate estimated quantities and liable to be changed (increase/decrease) or omitted when the work will be actually executed. The Engineer is authorized to vary or delete any item of work or any item of Bill of Quantities. The Engineer also authorized to include any number of new items in accordance with Contract conditions same in so far as specified under the terms and conditions laid down in General Conditions of Contract.

No claim for the payment will be admissible on account of anticipated profit or variation in overhead expenditures for the works not actually performed nor will any adjustment in the unit rate set- forth in the Bill of Quantities be made because of any increase or any decrease in the quantities indicated therein.

5. The prices and rates quoted in the Bill Quantities are full inclusive value of the works described under specified items including all cost and expenses which may be required in and for the construction of the works described together with all risks, liabilities and obligations set forth and implied in all the documents referred to on which the tender is based.

6. Unless otherwise stated in the text of the Bill of quantities, the quantities have to be measured and paid in accordance with measurement and payment of works clauses given in the relevant specifications or in accordance with implied meaning of the specification. Any special method of measurement based as stated in text of is limited to be the concerned items only.

7. The tenderer shall quote %age below or above or at par for the items based on MRS and Non-MRS given in the BoQ and the tender cost shall be evaluated by adding total cost of MRSD and Non-MRS items accordingly.

8. The tenderer should not make any addition or alternation in the tender documents. Tenders with addition or alteration shall be liable for rejection. Tenderer shall duly sign and stamp all pages of BOQ/Volume -III.

9. Bill of Quantities shall be read in conjunction with Conditions of Tender Documents, Technical Specifications and Drawings.

10. For any item of work listed in the BOQ, if the discrepancy between BOQ (MRS Item No, unit, rate or description) is noticed, in that case MRS shall prevail. In discrepancy is notice in Non MRS Items then Specifications/Rate analysis present Engineer Estimate will prevail.

**Shaheed Benazir Bhutto University, Sheringal, Dir Upper**

**Development of University of Dir, Sheringal , Dir Upper**

**External Electrical works**

**ENGINEER'S ESTIMATE**

**SUMMARY OF COST**

**A. MRS ITEMS (MRS 2020)**

1	Total Cost of Distribution Transformer Station & H.T / L.T Line Hardware Material	Rs.	6,686,906
	<b>Sub Total</b>	<b>Rs.</b>	<b>6,686,906</b>
	<b>10% Area Factor on Schedule item</b>	<b>Rs.</b>	<b>668,691</b>
	<b>Total-A</b>	<b>Rs.</b>	<b>7,355,596</b>

**B. NON MRS ITEMS**

1	Non MRS Items	Rs.	1,468,814
	<b>Total-B</b>	<b>Rs.</b>	<b>1,468,814</b>
	<b>Total A+B</b>	<b>Rs.</b>	<b>8,824,410</b>
	<b>Total Engineer's Estimate</b>	<b>Rs.</b>	<b>8,824,410</b>

Percentage above/below/at par on M.R.S items+Non MRS items (in figure )

\_\_\_\_\_ above/below/at par \_\_\_\_\_ %age  
Amount of above/below/at par on M.R.S items+Non MRS  
(in words) RS (B) Rs. \_\_\_\_\_

GRAND TOTAL FOR BOQ MRS & NON MRS ITEMS ( A+B )  
TOTAL AMOUNT FOR BOQ MRS & NON MRS ITEMS ( A+B ) IN  
WORDS RS. \_\_\_\_\_

Rs. \_\_\_\_\_

\_\_\_\_\_  
**CONTRACTOR**  
(Stamp)

**Development of University of Dir, Sheringal , Dir Upper  
Overhead External Electrical Networks  
Consolidated Cost of Distribution Transformer Stations & H.T / L.T Line Hardware Material  
MRS Item**

**Part -A**

Item	Description	Quantity	Unit	Unit Price (Rs.)	Total Price (Rs)	MRS 2020 Page/Item
1	2	3	4	5	6	7
1	Supply & erection of 100 KVA, 11/0.4 KV Transformer (Annex-A)	2	Each	458709.88	917419.76	P-173-15-100-c
2	Supply & erection of 200 KVA, 11/0.4 KV Transformer (Annex-B)	1	Each	1,032,802.25	1032802.25	P-173-15-100-d
3	Supply & stringing of ACSR Rabbit Conductor (7/0.132")	1111	Meter	447.01	496628.11	P-172-15-98-c
4	Supply & stringing of AAC Wasp Conductor (7/0.173")	60	Meter	678.32	40699.20	P-172-15-98-d
5	Supply & erection of Steel-X-Arm with braces	57	Each	9503.72	541712.04	P-173-15-101-a
6	Supply & erection of Steel-x-Arm / D-Fitting	5	Each	8400.74	42003.70	P-173-15-101-b
7	Supply & erection of 11 KV Pin Insulator	74	Each	1343.04	99384.96	P-173-15-99-b
8	Supply & erection of 11 KV pin for Steel-x-arm	74	Each	737.17	54550.58	P-173-15-99-c
9	Supply & erection of drop out cutouts	15	Each	10525.00	157875.00	P-174-15-111
10	Supply & erection of Earth Rod	33	Each	1652.21	54522.93	P-173-15-105-a
11	Supply & erection of Earthing wire GSL 6 mm	66	Kg	190.55	12576.30	P-173-15-105-b
12	Supply & erection of PG Connector	84	Each	265.15	22272.60	P-174-15-113-c
13	Supply & erection of D-Bracket along with cotter pin	30	Each	599.05	17971.50	P-174-15-109
14	Supply & erection of Spool Insulator	30	Each	205.43	6162.90	P-174-15-99-d
15	Supply & erection of Nut & Bolt 2"x5/8'	131	Each	212.86	27884.66	P-169-15-72-f
16	Supply & erection of Nut & Bolt 8" or 9"x5/8"	55	Each	214.05	11772.75	P-169-15-72-g
17	Supply & erection of Nut & Bolt 10"x5/8"	6	Each	235.56	1413.36	P-169-15-72-h
18	Supply & erection of double Arming Bolt	58	Each	900.75	52243.50	P-174-15-108
19	Supply & erection of double pole platform for transformers	3	Each	16499.26	49497.78	P-174-15-110-a
21	Supply, installation, of H Type Lattice Steel Structure 36'-0" Long Hot dip Galvanized, for overhead External Electrical Works.	25	Each	30496.00	762400.00	P-172-15-97-a
22	Supply, installation, of L Type Lattice Steel Structure 31'-0" Long Hot dip Galvanized, for overhead External Electrical Works.	3	Each	22839.63	68518.89	P-172-15-97-b
23	Supply & stringing of ACSR Dog Conductor	2167	Meter	799.86	1733296.62	P-172-15-98-b
24	Supply & erection of Stay set Complete	33	Each	1803.14	59503.62	P-173-15-102
25	Supply & erection of 11 KV Disc Insulator	60	Each	3073.40	184404.00	P-173-15-99-a
26	Supply & erection of dead end clamp	60	Each	542.25	32535.00	P-174-15-112-b
27	Supply & erection of Eye Nut	60	Each	240.08	14404.80	P-173-15-104
28	Supply & erection of PG Connector	12	Each	283.08	3396.96	P-174-15-113-b
	<b>SubTotal Part-A</b>				<b>6497854</b>	

**Development of University of Dir, Sheringal , Dir Upper  
Overhead External Electrical Networks  
Consolidated Cost of Distribution Transformer Stations & H.T / L.T Line Hardware Material  
MRS Item**

**Part -A**

Item	Description	Quantity	Unit	Unit Price (Rs.)	Total Price (Rs)	MRS 2020 Page/Item
<b>Part -B</b>	<b>Civil Work</b>					
1	Concrete Foundation H Type Lattice Steel Strcture size 2'x2'x6'-6"	25	Job	5971.74	149293.41	Annex-D
2	Concrete Foundation L Type Lattice Steel Strcture size 1'-8"x1'-8"x5'-6"	3	Job	3563.22	10689.65	Annex-E
3	Umbrella Type Rcc Concrete Foundation Column of T/F 400 kVA	1	Job	29068.79	29068.79	Annex-F
	<b>SubTotal Part-B</b>				<b>189052</b>	
	<b>Total Cost Part- (A+B)</b>			<b>Rs</b>	<b>6686906</b>	

**Development of University of Dir, Sheringal , Dir Upper  
External Electrical Networks  
Cost of 100kVA Distribution Transformer Station  
MRS Item**

Item	Description	Quantity	Unit	Unit Price (Rs.)	Total Price (Rs)	MRS 2020 Page/Item
1	Supply & erection of 100 KVA, 11/0.4 KV Transformer	1	Each	458709.88	458709.88	P-173-15-100-c
2	Supply & stringing of ACSR Rabbit Conductor (7/0.132")	25	Meter	447.01	11175.25	P-172-15-98-c
3	Supply & stringing of AAC Wasp Conductor (7/0.173")	20	Meter	678.32	13566.4	P-172-15-98-d
4	Supply & erection of Steel-X-Arm with braces	2	Each	9503.72	19007.44	P-173-15-101-a
5	Supply & erection of Steel-x-Arm / D-Fitting	1	Each	8400.74	8400.74	P-173-15-101-b
6	Supply & erection of 11 KV Pin Insulator	4	Each	1343.04	5372.16	P-173-15-99-b
7	Supply & erection of 11 KV pin for Steel-x-arm	4	Each	737.17	2948.68	P-173-15-99-c
8	Supply & erection of drop out cutouts	3	Each	10525.00	31575	P-174-15-111
9	Supply & erection of Stay Wire	20	Kg	223.35	4467	P-173-15-103
10	Supply & erection of Earth Rod	2	Each	1652.21	3304.42	P-173-15-105-a
11	Supply & erection of Earthing wire GSL 6 mm	4	Kg	190.55	762.20	P-173-15-105-b
12	Supply & erection of PG Connector	12	Each	265.15	3181.8	P-174-15-113-c
13	Supply & erection of D-Bracket along with cotter pin	10	Each	599.05	5990.5	P-174-15-109
14	Supply & erection of Spool Insulator	10	Each	205.43	2054.3	P-174-15-99-d
15	Supply & erection of Nut & Bolt 2"x5/8"	8	Each	212.86	1702.88	P-169-15-72-f
16	Supply & erection of Nut & Bolt 8" or 9"x5/8"	10	Each	214.05	2140.5	P-169-15-72-g
17	Supply & erection of Nut & Bolt 10"x5/8"	2	Each	235.56	471.12	P-169-15-72-h
18	Supply & erection of double Arming Bolt	2	Each	900.75	1801.5	P-174-15-108
19	Supply & erection of double pole platform for transformers	1	Each	16499.26	16499.26	P-174-15-110-a
	<b>Total Cost</b>			<b>Rs</b>	<b>593,131</b>	

**Development of University of Dir, Sheringal , Dir Upper  
External Electrical Networks  
Cost of 200kVA Distribution Transformer Station  
MRS Item**

Item	Description	Quantity	Unit	Unit Price (Rs.)	Total Price (Rs)	MRS 2020 Page/Item
1	Supply & erection of 200 KVA, 11/0.4 KV Transformer	1	Each	1,032,802.25	1032802.25	P-173-15-100-d
2	Supply & stringing of ACSR Rabbit Conductor (7/0.132")	25	Meter	447.01	11175.25	P-172-15-98-c
3	Supply & stringing of AAC Wasp Conductor (7/0.173")	20	Meter	678.32	13566.4	P-172-15-98-d
4	Supply & erection of Steel-X-Arm with braces	2	Each	9503.72	19007.44	P-173-15-101-a
5	Supply & erection of Steel-x-Arm / D-Fitting	1	Each	8400.74	8400.74	P-173-15-101-b
6	Supply & erection of 11 KV Pin Insulator	4	Each	1343.04	5372.16	P-173-15-99-b
7	Supply & erection of 11 KV pin for Steel-x-arm	4	Each	737.17	2948.68	P-173-15-99-c
8	Supply & erection of drop out cutouts	3	Each	10525.00	31575	P-174-15-111
9	Supply & erection of Stay Wire	20	Kg	223.35	4467	P-173-15-103
10	Supply & erection of Earth Rod	2	Each	1652.21	3304.42	P-173-15-105-a
11	Supply & erection of Earthing wire GSL 6 mm	4	Kg	190.55	762.20	P-173-15-105-b
12	Supply & erection of PG Connector	12	Each	265.15	3181.8	P-174-15-113-c
13	Supply & erection of D-Bracket along with cotter pin	10	Each	599.05	5990.5	P-174-15-109
14	Supply & erection of Spool Insulator	10	Each	205.43	2054.3	P-174-15-99-d
15	Supply & erection of Nut & Bolt 2"x5/8'	8	Each	212.86	1702.88	P-169-15-72-f
16	Supply & erection of Nut & Bolt 8" or 9"x5/8"	10	Each	214.05	2140.5	P-169-15-72-g
17	Supply & erection of Nut & Bolt 10"x5/8"	2	Each	235.56	471.12	P-169-15-72-h
18	Supply & erection of double Arming Bolt	2	Each	900.75	1801.5	P-174-15-108
19	Supply & erection of double pole platform for transformers	1	Each	16499.26	16499.26	P-174-15-110-a
	<b>Total Cost</b>			<b>Rs</b>	<b>1,167,223</b>	



**Development of University of Dir, Sheringal , Dir Upper  
Overhead External Electrical Networks  
Cost of Hardware Material 400kVA Distribution Transformer Station  
MRS Item**

Item	Description	Quantity	Unit	Unit Price (Rs.)	Total Price (Rs)	MRS 2020 Page/Item
1	Supply & stringing of ACSR Rabbit Conductor (7/0.132")	25	Meter	447.01	11175.25	P-172-15-98-c
2	Supply & erection of Steel-X-Arm with braces	2	Each	9503.72	19007.44	P-173-15-101-a
3	Supply & erection of 11 KV Pin Insulator	4	Each	1343.04	5372.16	P-173-15-99-b
4	Supply & erection of 11 KV pin for Steel-x-arm	4	Each	737.17	2948.68	P-173-15-99-c
5	Supply & erection of drop out cutouts	3	Each	10525.00	31575	P-174-15-111
6	Supply & erection of Stay Wire	20	Kg	223.35	4467	P-173-15-103
7	Supply & erection of Earth Rod	2	Each	1652.21	3304.42	P-173-15-105-a
8	Supply & erection of Earthing wire GSL 6 mm	4	Kg	190.55	762.20	P-173-15-105-b
9	Supply & erection of PG Connector	12	Each	265.15	3181.8	P-174-15-113-c
10	Supply & erection of Nut & Bolt 2"x5/8'	8	Each	212.86	1702.88	P-169-15-72-f
11	Supply & erection of Nut & Bolt 8" or 9"x5/8"	10	Each	214.05	2140.5	P-169-15-72-g
	<b>SubTotal Cost-A</b>				<b>85,637</b>	
<b>Part-B CONCRETE WORK</b>						
1	Umbrella Type Rcc Concrete Foundation Column of T/F	1	Job	29069	29,069	
	<b>Sub Total Part-B</b>				<b>29,069</b>	
	<b>Total Part- (A+B)</b>			<b>RS</b>	<b>114,706</b>	

**Development of University of Dir, Sheringal , Dir Upper**  
**External Electrical works**  
**External Electrical works**  
**Non MRS Item**

**Part-B**

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Rate (Rs.)</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>Distribution Transformers</b>				
	Supplying at site, installation, testing & commissioning of Ddistribution transformers,400 kVA conforming to WAPDA Technical specifications and standards and as approved and directed by the Engineer Incharge.				
	i) 400 KVA	1	Each	1468814	1468814
	<b>Total</b>				<b>1468814</b>

**Development of University of Dir, Sheringal , Dir Upper  
External Electrical works  
MRS Item**

<b>Concrete Foundation (2'x2'x6.5') for H type Lattice steel structure</b>									
<b>Sr. No</b>	<b>Description</b>	<b>No</b>	<b>L</b>	<b>B</b>	<b>H</b>	<b>Total</b>	<b>Rate (Rs.) MRS 2020</b>	<b>Amount (Rs.)</b>	<b>Unit</b>
1	Excavation (shingle/Gravel)	1	2.00	2.00	6.00	24.00	9.29	223.02	Cft
2	Rehandling	1				7.20	2.57	18.52	Cft
3	PCC 1:2:4	1	2.00	2.00	6.50	26.00	220.39	5,730.19	Cft
							<b>Total Cost</b>	<b>5,971.74</b>	<b>Rs</b>

**Development of University of Dir, Sheringal , Dir Upper  
External Electrical works  
MRS Item**

<b>PCC Concrete Foundation (1'-8"x1'-8"x5.5') L type Lattice steel structure</b>									
<b>Sr. No</b>	<b>Description</b>	<b>No</b>	<b>L</b>	<b>B</b>	<b>H</b>	<b>Total</b>	<b>Rate (Rs.) MRS 2020</b>	<b>Amount (Rs.)</b>	<b>Unit</b>
1	Excavation (shingle/ Gravel)	1	1.68	1.68	5.00	14.11	9.29	131.14	Cft
2	Rehandling	1				4.23	2.57	10.89	Cft
3	PCC 1:2:4	1	1.68	1.68	5.50	15.52	220.39	3,421.19	Cft
							<b>Total Cost</b>	<b>3,563.22</b>	<b>Rs</b>

## Development of University of Dir, Sheringal , Dir Upper External Electrical works

### MRS Item

<b>Umbrella Type RCC Concrete Column for Transformer, 400 kVA</b>									
Sr. No	Description	No	L	B	H	Total	Rate (Rs.) MRS 2020	Amount (Rs.)	Unit
1	Excavation (shingle/Gravel)	1	6.50	6.50	6.50	274.63	9.29	2,552.01	Cft
2	Rehandling	1				205.97	2.57	529.85	Cft
3	Sand Filling	1	6.50	6.50	1.00	42.25	36.43	1,539.31	Cft
4	PCC 1:4:8	1	6.50	6.50	0.25	10.56	170.02	1,795.83	Cft
5	RCC 1:2:4 Foundation	1	5.50	5.50	1.00	30.25	260.62	7,883.72	Cft
6	Top Slab	1	5.00	7.00	1.00	35.00	260.62	9,121.67	Cft
7	Column	1		1.77	11.00	19.45	290.36	5,646.40	Cft
							<b>Total Cost</b>	<b>29,068.79</b>	<b>Rs</b>