

SCOPE WITH TERMS & CONDITIONS**Supply, installation, Testing and commissioning of LTDB for New Schemes at HEEP, Haridwar.**

Sl.No.	Description and Details of Equipment	Make	Unit	Qty.
1	<u>L.T. DISTRIBUTION PANEL :</u>	ABB, SIEMENS, AREVA AND L&T	SET	2
	(a) ONE INCOMER (2500 A) Air Circuit Breaker, Draw Out type Electrically & Mechanically operated with Over Current & Earth Fault Protection (Micro Processor Based) with suitable CTs incorporating indicating lamps, control switch with Voltmeter and Ammeter (with selector switch). & Energy meter (3 phase 4 wire) ,Degree of protection shall be of IP-54. Panel shall be fabricated of CRCA Sheet Steel. Applicable Standadrs for Panel IS:3427, IEC 298, BS 5277, VDE 0670 with upto date ammendments.			
	(b) OUT GOING FEEDERS (TOTAL FIVE) :			
	(b-1) Three feeders (800 A) Air Circuit Breaker, Draw Out type Mechanically operated with Over Current & Earth Fault Protection (DN Release type) with suitable CTs incorporating indicating lamps, control switch with Ammeter& selector switch.Degree of protection shall be of IP-54. Panel shall be fabricated of CRCA Sheet Steel. Applicable Standadrs for Panel IS:3427, IEC 298, BS 5277, VDE 0670 with upto date ammendments.			
	(b-2) One feeders (630 A) MCCB with suitable CTs incorporating indicating lamps, control switch with Ammeter& selector switch.Degree of protection shall be of IP-54. Panel shall be fabricated of CRCA Sheet Steel. Applicable Standadrs for Panel IS:3427, IEC 298, BS 5277, VDE 0670 with upto date ammendments.			
	(b-3) One feeder (250 A) MCCB with suitable CTs incorporating indicating lamps, control switch with Ammeter& selector switch.Degree of protection shall be of IP-54. Panel shall be fabricated of CRCA Sheet Steel. Applicable Standadrs for Panel IS:3427, IEC 298, BS 5277, VDE 0670 with upto date ammendments.			

contd.---2

Special Terms & Conditions :-

1	Submission of Type test certificate on similar rating of equipments of any lot and routine test certificate of the equipments supplied (In original and one photo copy) and O&M manual (3 sets) for individual equipment shall be in the scope of party.			
2	PERT chart for the completion schedule of project (Supply & ETC) shall be provided by the Party within 15 days after PO placement.			
3	All the tools, tackles, T&P shall be arranged by the Party during Erection, Test & Commissioning.			
4	Open space for material storage shall be provided by BHEL. However unloading, shifting, storage, custodian and safety of material related to above project shall be in scope of party. Any damages & shortages of the supplied material shall be responsibility of party.			
5	Supply of consumables like nuts, bolts etc. if required shall be in scope of party.			
6	No furnished/unfurnished accommodation shall be provided by BHEL for any labour/site personnel of the party.			
7	BHEL will provide only power point for necessary lighting/ erection work etc.			
8	BHEL shall not allow any space for labour camping inside the premises.			
9	As this is a turnkey project, inspection, performance, erection, testing & commissioning of items supplied and safety & security of man & material shall be responsibility of the party. The party shall also provide the guarantee for the total system as per guarantee clause of the PO.			
10	BHEL will allow the material handling equipments to enter inside as & when required for erection related work.			
11	BHEL will arrange passes for the labour & other personals as per co. rules on the request of party.			
12	Party has to arrange angle iron frame/ support structure for any equipment, if required.			
13	Bus bars of panel shall be of Copper.			
14	If required, party may visit the site for assessment of work.			
15	All the panels are to earthed at 02 points with GI strip of 50x6 mm from Transformer body (already earthed) as per instruction of the Engineer Incharge			
	<u>BHEL, Haridwar Scope of Work :</u>			
1	Preparation of Equipment foundations, cable trenches., however the drawings shall be submitted by the party..			
2	Electrical power & water supply will be provided free of charge for construction work.			

SCOPE WITH TERMS & CONDITIONS

Supply, installation, testing and commissioning of Bus-Duct for New Scheme at HEEP, Haridwar.

SL	Description and Details of Equipment	Make	Unit	Qty.
1	Copper Bus-Duct :- 3PHASE & NEUTRAL COPPER CONDUCTOR BUS-DUCT OF 2500 AMP. CAPACITY PER PHASE & 1250 AMP. FOR NEUTRAL HAVING SHORT CIRCUIT RATING-50KA FOR 1 SEC. & TEMPERATURE RISE OF 55 DEGREE ABOVE AMBIENT AND EARTH STRIPS AS PER IEC-439/2, ALONGWITH FOLLOWING SCOPE OF SUPPLY PER SET :- 1. STRAIGHT RUN OF COPPER BUS DUCT - 2 METER (APPROX.) FOR 3 PHASE & NEUTRAL. 2. COPPER FLEXIBLE END CONNECTIONS - 2 NOS. (FOR EACH PHASE & NEUTRAL). 3. BUS BAR BENDS - 2 NOS. NOTE : INSTALLATION & COMMISSIONING OF COPPER BUS DUCT SHALL INCLUDE CONNECTION OF BUS DUCT WITH TRANSFORMER (Supplied & Installed by BHEL) AT ONE END AND CONNECTION WITH LTDB PANEL ON THE OTHER END SUITABLE TO THE CUTOUT OF TRANSFORMER & LTDB PANEL. IT ALSO INCLUDES LIKE ADAPTOR BOX, NECESSARY HARDWARES, SUPPORT INSULATORS, EARTHING & PAINTING ETC.	ANY REPUTED MAKE	Nos.	2
SPECIAL TERMS AND CONDITIONS :-				
1	Submission of Type test certificate on similar rating of equipments of any lot and routine test certificate of the equipments supplied (In original and one photo copy) shall be in the scope of party.			
2	PERT chart for the completion schedule of project (Supply & ETC) shall be provided by the Party within 15 days after			
3	All the tools, tackles, T&P shall be arranged by the Party during Erection, Test & Commissioning.			
4	Open space for material storage shall be provided by BHEL. However unloading, shifting, storage, custodian and safety of material related to above project shall be in scope of party. Any damages & shortages of the supplied material shall be responsibility of party.			
5	Supply of consumables like nuts, bolts etc. if required shall be in scope of party.			
6	No furnished/unfurnished accommodation shall be provided by BHEL for any labour/site personnel of the party.			
7	BHEL will provide only power point for necessary lighting/ erection work etc.			
8	BHEL shall not allow any space for labour camping inside the premises.			
9	As this is a turnkey project, inspection, performance, erection, testing & commissioning of items supplied and safety & security of man & material shall be responsibility of the party. The party shall also provide the guarantee for the total system as per guarantee clause of the PO.			
10	BHEL will arrange passes for the labour & other personals as per co. rules on the request of party.			
11	Party has to arrange angle iron frame/ support structure, if required.			
12	If required, party may visit the site for assessment of work.			
13	The Bus- Duct to be earthed at 02 points with GI strip of 50x6 mm from Transformer body (already earthed) & shall be in the scope of party.			
	BHEL, Haridwar Scope of Work :			
1	Preparation of Equipment foundations, cable trenches., however the drawings shall be submitted by the party..			
2	Electrical power & water supply will be provided free of charge for construction work.			
3	Supply & installation of Transformer, laying of HT Cable and termination at both ends.			

SCOPE WITH TERMS & CONDITIONS

Supply, installation, and commissioning of Sectionalising switch in New Scheme at HEEP, Haridwar.

SL	Description and Details of Equipment	Make	Unit	Qty.
1	Sectionalising switch panel :- 800 Amps. Air Circuit Breaker, Draw Out type Mechanically operated with Over Current & Earth Fault Protection (DN Release type) with suitable CTs incorporating indicating lamps ,Degree of protection shall be of IP-54. Panel shall be fabricated of CRCA Sheet Steel. Applicable Standadrs for Panel IS:3427, IEC 298, BS 5277, VDE 0670 with upto date ammendments.	ABB / SIEMENS / AREVA / L&T	Nos.	2
<u>SPECIAL TERMS AND CONDITIONS :-</u>				
1	Submission of Type test certificate on similar rating of equipments of any lot and routine test certificate of the equipments supplied (In original and one photo copy) and O&M manual (3 sets) for individual equipment shall be in the scope of party.			
3	PERT chart for the completion schedule of project (Supply & ETC) shall be provided by the Party withen 15 days after			
4	All the tools, tackles, T&P shall be arranged by the Party during Erection, Test & Commissioning.			
5	Open space for material storage shall be provided by BHEL. However unloading, shifting, storage, custodian and safety of material related to above project shall be in scope of party. Any damages & shortages of the supplied material shall be responsibility of party.			
6	Supply of consumables like nuts, bolts, foundation bolts etc. if required shall be in scope of party.			
7	No furnished/unfurnished accommodation shall be provided by BHEL for any labour/site personnel of the party.			
8	BHEL will provide only power point for necessary lighting/ erection work etc.			
9	BHEL shall not allow any space for labour camping inside the premises.			
10	As this is a turnkey project, inspection, performance, erection, testing & commissioning of items supplied and safety & security of man & material shall be responsibility of the party. The party shall also provide the gauranttee for the total system as per gauranttee clause of the PO.			
11	BHEL will arrange passes for the labour & other personals as per co. rules on the request of party.			
12	Party has to arrange angle iron frame/ support stucture , if required.			
13	If required, party may visit the site for assesement of work.			
14	These panels to be earthed at 02 points with GI strip of 50x6 mm from LTDB (already earthed) & shall be in the scope			
	<u>BHEL, Haridwar Scope of Work :</u>			
1	Preperation of Equipment foundations, cable trenches., however the drawings shall be submitted by the party..			
2	Electrical power & water supply will be provided free of charge for construction work.			
3	Supply, laying and termination of LT Cable to sectionalizing switch.			

SCOPE WITH TERMS & CONDITIONS

Supply, Installation, and Commissioning of Power Factor correction panel for New Scheme at HEEP, Haridwar.

SL	Description and Details of Equipment	Make	Unit	Qty.
1	Power factor correction panel :- Automatic Power Factor correction panle of 415 volts, 50 Hz , 275 KVAR (25KVAR x11 Steps) incorporating Ammeter & Volmeter with slector wicthes, indicating lamps, control switch etc as per applicable standard.	ABB / SIEMENS / AREVA / L&T/ REPUTED MAKE	Nos.	2
<u>SPECIAL TERMS AND CONDITIONS :-</u>				
1	Submission of Type test certificate on similar rating of equipments of any lot and routine test certificate of the equipments supplied (In original and one photo copy) and O&M manual (3 sets) for individual equipment shall be in the scope of party.			
2	PERT chart for the completion schedule of project (Supply & ETC) shall be provided by the Party withen 15 days after			
3	All the tools, tackles, T&P shall be arranged by the Party during Erection, Test & Commissioning.			
4	Open space for material storage shall be provided by BHEL. However unloading, shifting, storage, custodian and safety of material related to above project shall be in scope of party. Any damages & shortages of the supplied material shall be responsibility of party.			
5	Supply of consumables like cable glands, cable lugs, nuts, bolts etc. if required shall be in scope of party.			
6	No furnished/unfurnished accommodation shall be provided by BHEL for any labour/site personnel of the party.			
7	BHEL will provide only power point for necessary lighting/ erection work etc.			
8	BHEL shall not allow any space for labour camping inside the premises.			
9	As this is a turnkey project, inspection, performance, erection, testing & commissioning of items supplied and safety & security of man & material shall be responsibility of the party. The party shall also provide the gaurantee for the total system as per gaurantee clause of the PO.			
10	BHEL will arrange passes for the labour & other personals as per co. rules on the request of party.			
11	Party has to arrange angle iron frame/ support stucture , if required.			
12	If required, party may visit the site for assesement of work.			
13	These panels to be earthed at 02 points with GI strip of 50x6 mm from LTDB (already earthed) & shall be in the scope			
14	Connection of LTTSC Panel from LTDB shall be in the scope of Party. However cable shall be supplied by BHEL free of cost.			
	<u>BHEL, Haridwar Scope of Work :</u>			
1	Preperation of Equipment foundations, cable trenches., however the drawings shall be submitted by the party..			
2	Electrical power & water supply will be provided free of charge for construction work.			
3	Supply, laying and termination of LT Cable to APFC Panel.			