obcc
OFFICE OF THE SENIOR PROJECT MANAGER, INFRASTRUCTURE DIVISION
ODISHA BRIDGE & CONSTRUCTION CORPORATION LIMITED
(A Government of Odisha Undertaking under Works Department)
O.M.P. Square, Cuttack – 753004 | Email: ctcdiv3@obcc.in

O/C

No: 364/WE Date 26-07-2022

To

Mr. Neelakandan E
AGM-Project
CNBT-Cuttack
URC Construction Pvt. Ltd

Sub: Construction of Netaji Bus Terminus at Cuttack on lumpsum turnkey basis / **Approved Estimate for new connection of 500 KW**

Ref: TPCODL Email Dt-26-07-2022

Sir,

With reference to the subject cited above, it is forwarded herewith the copy of the TPCODL approved estimate regarding installation of 1 no. 11 KV, 3 Way RMU with metering unit to provide power supply of 500 KW for CNBT project under 6% deposit scheme.

This is for your information & necessary action.

Encl:- TPCODL Estimate (12 pages)

Yours faithfully,

26/7/2022

Sr. Project Manager,
Infrastructure Division
O.B. & C.C. Ltd, Cuttack

Memo No. 365(2)/WE /Dt 26-07-2022

Copy submitted to the E.I.C-cum-M.D., O.B. & C.C. Ltd./ Senior Chief General Manager, O.B. & C.C. Ltd. Bhubaneswar for favour of kind information and necessary action.

URC Construction (P) Ltd.

Received by
- ASIS (Pl.Eg)
26/07/22 - 05.30pm.

26/7/2022

Sr. Project Manager,
Infrastructure Division
O.B. & C.C. Ltd, Cuttack

Received through mail on dt >26/7/2022

TP CENTRAL ODISHA DISTRIBUTION LTD.

Notification No.-5001163458	NEG Tracking No. NC/DCDD2/00015	Date: 22.07.2022

Name of the Division :-	CUTTACK
Name of the Sub-Division : -	CDD-2
Name of the Section : -	BADAMBADI
Name of Consumer: -	CNBT
Name of the Work :-	Installation of 1 No of 11 KV, 3WAY RMU with metering unit for providing Power supply of CNBT having CD of 555.55 KVA.
Scope of work:-	1 Installation of 1 No of 11 KV, 3WAY RMU with metering unit at consumer premises.(Refer SLD-K1)
Names of Schemes: -	6% deposit work.
Type of Work	New Connection

Abstract of Estimate

Sl. No.	Description	Gross	6% S.C	18% GST on 6% S.C	Total (6% S.C + 18% GST)
1	PART A: 1 Installation of 1 No of 11 KV, 3WAY RMU with metering unit at consumer premises.(Refer SLD-K1) (To be executed by party & maintained by TPCODL under 6% Deposit work Scheme).	9,70,590 01	46,558 52	8,330.53	54,939.06
2	Inspection Charges	2,900 00			
3	Total Estimated Cost	9,73,490.01			
4	Total Estimated Cost on 6% deposit (6% S.C + 18% GST)				54,939.06

Total Estimated Cost to be deposited by party Rs. 54,939.06 (Rupees Fifty Four Thousand Nine Hundred Thirty Nine and Six Paisa only.)

Note:
1. All equipments to be purchased as per TPCODL specs., GTP.
2. All the inspection to be done as per TPCODL standards.
3. Incase the scope of work changes, the estimate may change and the difference amount to be payable by party after reconciliation.
4. Party has to resolve all RoW issues if arises while construction and after charging also.
5. All installation to be done as per TPCODL Drawing.
6. Rate taken in the estimate are from Cost Data Book(CDB) released from DoE(GoO) and may be on lower or higher than the actual procurement cost.

PREPARED BY	CHECKED BY	APPROVED BY	APPROVED BY	APPROVED BY
LEAD ENGG.-NEG	TEAM LEAD - NEG	HOG - NEW CONNECTION	HOG - NEG	HEAD -(E & Q)

TPCODL

NEG Tracking No.: NC/D0CDD2/00015
Date: 22.07.2022

Technical Feasibility Report

Project Name	:	**CNBT, CUTTACK**
KCG Request No	:	**5001163458**
Division	:	**CDD2**
Sub-Division	:	**BADAMBADI**
Section	:	**BADAMBADI**
Type of Load	:	**Commercial (NEW CONNECTION)**
Supply Voltage	:	**11KV**
Consumer Category	:	**Govt.**
Load requirement in KVA	:	**555.55 KVA**
Network Feasibility	:	**Feasible**
Latitude/Longitude	:	**NA**

Load requirement	Final Power Supply
Connected load (KVA)	--
Estimated Demand (KVA)	555.55
Power Supply Requirement Date	NA
33/11KV PSS Name	BADAMBADI
11KV Feeder Name	BADAMBADI-2
11KV feeder Trunk conductor Size	100 sq.mm, AAAC
11KV Feeder Peak loading	215 A
11KV feeder conductor Size from where Tapping to be done for releasing load	11 KV 3C X 400 Sq.mm. U/G Cable
Existing 33KV Feeder Name	BADAMBADI FEEDER
Existing 33KV Feeder conductor Size	232 mm2
Rating of the Existing 33/11KV PTR	12.5 MVA
Existing 33/11KV PTR loading (MVA)	7.53 MVA
Existing 33KV Feeder Loading (Amp)	243
33KV feeder conductor Size from where Tapping to be done for releasing load	NA
Loading of 33/11KV PTR loading with new consumer (MVA)	8.08 MVA
Loading of 33KV feeder with new consumer(Amp)	252.71 A
Loading of 11KV Feeder with new consumer (Amp)	244.15 A

Existing 11 KV Bus Voltage at PSS (in KV)	10.7
Proposed Feeder Section	BADAMBADI
Route Length in Mtr for Construction of New line / UG	NA
Voltage Drop (in KV)	0.1118
Voltage at Consumer end in 11KV	10.58
Voltage at Consumer end in 1.1 (V)	NA

Last Mile Connectivity:	1 PH	3PH
No. of Meters	-	1

Space Req for Utility infra	Nos.	Space
DSS Overhead Space Req.	1	4x5
DSS for UG Network Space Req.	0	8X5
Type of DSS (Indoor/ Outdoor)	Outdoor	
PSS Space Req.	0	NA
LT Meter Room Space Req.		
Earth Pit for DSS	0	NA
Earth Pit for PSS (33/11kv)	0	NA
Earth pits for LT Meter	1/mtr room	each earth pit @ 2.5 mtr
Proposed new DT Capacity (KVA)	Total Capacity	
Transformers		

Remarks	
Temporary Power supply remarks	
Final Power supply remarks (Scope of Work)	1. Installation of 1 No of 11 KV, 3WAY RMU with metering unit at consumer premises.(Refer SLD-K1)

Note: 1. The route length to be checked during JSV. Any change in the load would lead to revision in Feasibility.
2. Power supply can be released as per OERC SOP Norms.

Validity: This report is valid for 6 months. Post validity please reinitiate for feasibility.

Validity Date: 22.07.2022

Prepared by	Checked by	Approved by
Lead Engineer	Team Lead-NEG	HOG, New Connection

1. Installation of 1 No of 11 KV, 3WAY RMU with metering unit at consumer premises.(Refer SLD-K1)

Supply Portion

Sl. No.	Description of items	Unit	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	Supply of 11kV RMU				
a	*No. of 11kV 3Way RMU (LLV+M)*	*nos.*	*1*		
1.1	Supply of RMU 3W 11kV 630A with metering unit (LLV+M)	Nos.	1	5,76,739.00	5,76,739.00
2	Earthing				
2.1	Earthing Conductor: **50X6 mm** (2.4kg./mtr.) **GI Flat** for equipment, structure etc.)	kg	13.20	88.50	1,168.20
2.2	Pipe Earthing 40mm. GI Pipe	Nos.	2	1,239.00	2,478.00
	Sub Total (Supply Portion) (in Rs.)				**5,80,385.20**

Erection Portion

Sl. No.	Description of items	Unit	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	Erection of RMU 3W 11kV 630A with metering unit (LLV+M)	Nos.	1	15,000.00	15,000.00
	Sub Total (Erection Portion) (in Rs.)				**15,000.00**

Civil Portion

Sl. No.	Description of items	Unit	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	**Civil works for Prefabricated RCC foundation with supply of all materials**				
1.1	Prefabricated RCC foundation of 11kV RMU	Nos.	1	23,145 30	23,145 30
1.2	Supply of GI Fencing with Gate around each RMU	sqmtr	20	3,600.00	72,000.00
1 3	Installation of Earth Pit, Charcoal, Salt etc. including construction of earthing chamber (Size: 2'x2') and RCC slab cover	Set	2	2,407.00	4,814 00
	Sub Total (Civil Portion) (in Rs.)				**99,959.30**

A	**Sub Total (Supply Portion)**	**5,80,385.20**
B	Stock, Storage & Insurance @ 3 % of A	17,411.56
C	**Sub Total (A+B)**	**5,97,796.76**
D	Contingency @ 3 % of C	17,933.90
E	Tools & Plants Charges @ 2% of C (considered for earthing items)	75.11
F	Transportation @ 7.5% of C	44,834.76
G	Erection Charges @ 10% of earthing items	375.56
H	**Total (C+D+E+F+G)**	**6,61,016.09**
I	Sub Total (Erection Portion + Civil Portion)	1,14,959.30
J	**Total Cost (H+I)**	**7,75,975.39**
K	Other Overhead /(including Supervision Charges) @ 6 % of J	46,558.52
L	**Total Estimated Capital Cost i.e. (J+K)**	8,22,533.91
M	GST @ 18% of L	1,48,056.10
N	**Grand Total (L+M)**	**9,70,590.01**
O	Inspection Fee of RMU - Rs. 2000/ RMU	2000
P	Inspection Fee of Drawing Checking and Approval	400.00
Q	Final decision by electrical Inspector	500.00
R	**Gross Total Material, Services and Inspection Fees (N+O+P+Q)**	**9,73,490.01**

22/07/22

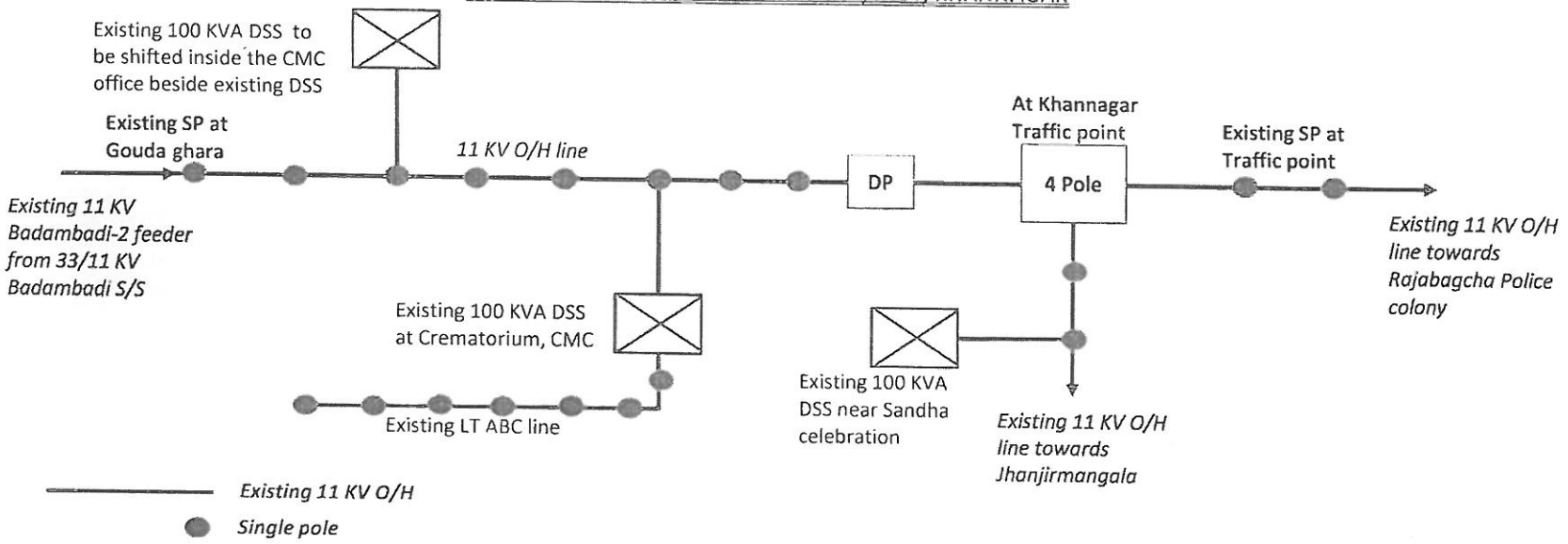
Prepared By
Lead Engineer

Checked By
Team Lead (NEG)

Approved By
HoG,New Connection

Approved By
HOG,NEG

EXISTING SLD AT NETAJI BUS TERMINAL,CNBT, KHANNAGAR



Prepared By
Lead Engineer

22/12/22

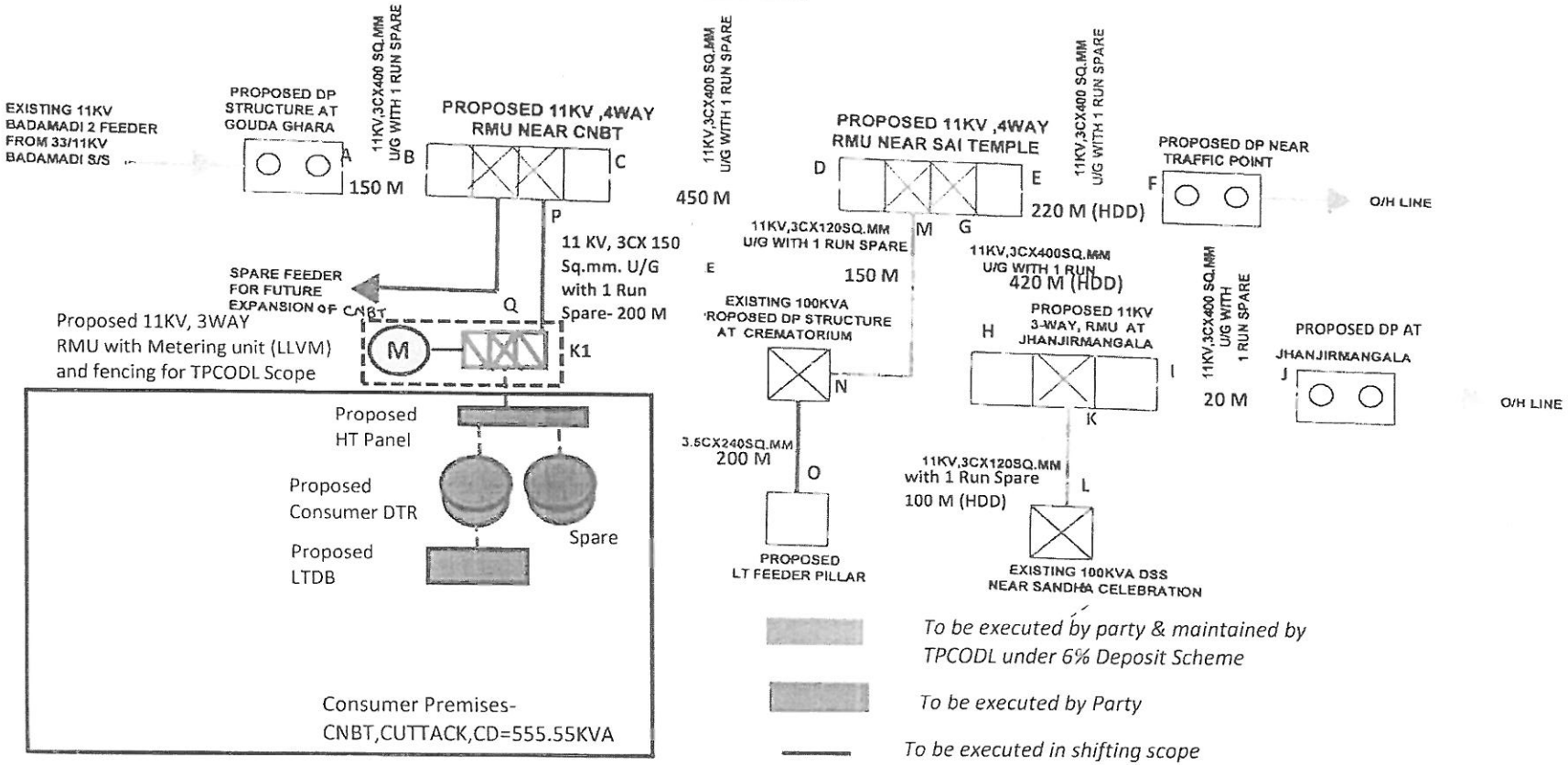
Checked By
Team Lead (NEG)

22/12/22

Approved By
HoG,New Connection

Approved By
HOG,NEG

PROPOSED SLD



Prepared By
Lead Engineer

Checked By
Team Lead (NEG)

Approved By
HoG,New Connection

Approved By
HOG,NEG

CNBT, CUTTACK (CD-555.55 KVA)

11 KV FEEDER LOADING ANALYSIS

Scenario	Main source structure/PSS	Main source feeder	Main source feeder peak load (MVA)	Current Carrying Capacity of Conductor(Main source feeder) (MVA)	Feeder Status	Backfeeding feeder name	Backfeeding Structure name	Backfeeding feeder Peak load (MVA)	Total feeder Peak of the circuit (MVA)	Current Carrying Capacity of Backfeeding conductor (MVA)	N-1 FEEDER STATUS
Existing	BADAMBADI	11KB BADAMBADI-2	4.10	5.2	OK	No back feed Available	NA	NA	NA	NA	NOT OK
After releasing 0.555 MVA load	BADAMBADI	11KV BADAMBADI-2	4.65	5.2	OK	No back feed Available	NA	NA	NA	NA	NOT OK

PTR LOAD (MVA) ANALYSIS

Scenario	Main source structure	Main source PTR No.	Main source PTR peak load in MVA	Backfeeding PTR Peak load	Backfeeding PTR No.	Backfeeding structure Name	N-1 PTR Peak of the circuit	PTR STATUS	N-1 STATUS
Existing	BADAMBADI	PTR-1(12.5MVA)	7.53	1.9	PTR-2(12.5MVA)	BADAMBADI	9.47	OK	OK
After releasing 0.555 MVA load	BADAMBADI	PTR-1(12.5MVA)	8.08	1.9	PTR-2(12.5MVA)	BADAMBADI	10.03	OK	OK

VOLTAGE DROP	Main Source Strucutre	Main source feeder	Source 11KV Feeder Voltage in KV	Feeder Length in KM	Proposed FeederLoading in Amp	Conductor/ CABLE size in sqmm	Reistance (ohm/km)	Voltage drop in KV	Voltage at Tail End (KV)
For 0.555 MVA load	BADAMBADI	11KB BADAMBADI-2	10.7	1.2	244.15	100	0.375	0.11	10.59
	BADAMBADI	11KB BADAMBADI-2	10.59	0.15	29.15	400 SQ.MM,XLPE U/G	0.1200	0.0005	10.59
	BADAMBADI	11KB BADAMBADI-2	10.59	0.2	29.15	150 SQ.MM,XLPE U/G	0.2400	0.0014	10.588

Prepared By
Lead Engineer

Checked By
Team Lead (NEG)

Approved By
HoG.New Connection

Approved By
HOG,NEG

TPCODL

TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED

Form No: F03-(09.04.01)
Rev. : 00

Eff. Dt.: 23.06.2021

Site Visit form for 11kV and below

Notification No. 500116345 8

Date 16-July-2022

WBS No

Name & Address CNBT, Cuttack

Circle	Division	Sub-Division	Section
Cuttack	CDO-2	Badambadi	Badambadi

Type of Case (Tick Any)	Express Consumer (>550kW)	HRB (10kW to 99kW)	KCG (99kW - 550kW)	CAPEX	Govt. Affairs	
Request Type (Tick Any)	New Conn. ✓	Load Enhacment	Shifting	SI	Street Lighting	Electrification
Type of Consumer (Tick Any)	Industrial	Commercial	Residential	MLHT	Ammalgamation	Agriculture
	Educational Institute	Temporary	Permanent			

Santioned Load	Existing-		KW		KVA
	Additional-		KW	Contract Demand	KVA
	New-	500	KW	555.55	KVA
Exist. Primary Fdr. Name	Badambadi	Exist. Structure Name	Badambadi PS	Peak Load	Amp
Exist. Back Fdr. Name No.1		Exist. Structure Name		Peak Load	Amp
Exist. Back Fdr. Name No.2		Exist. Structure Name		Peak Load	Amp
Prop. Primary Fdr. Name		Prop. Strucure Name		Peak Load	Amp
Prop. Back Fdr. Name No.1		Prop. Strucure Name		Peak Load	Amp
Prop. Back Fdr. Name No.2		Prop. Strucure Name		Peak Load	Amp

Proposed HT Line Length (Mtr)	O/H Bare	—	(M)	U/G Cable	— (M)
Proposed HT Line Size (Mtr)	O/H Bare			U/G Cable	

Road Restoration Detail

Type Of Road	Road Width (Mtr)	Road Owning Agency	Open Excavation (Mtr)	Manual Trenchless (Mtr)	Trenchless by Machine (Mtr)	Pole Pit
Ordinary Soil Kucchha	—					

Footh Path/Brick Work
Bituminous Road
Dense Carpet upto 200mm
Dense Carpet above 200mm
Rocky

Feeder Proposal

Structure Name & Bus No.	Panle No.if Panel available in Structure	Space availability if additional panel required

Interconnector Proposal

Name of 1st ESS	Panel No. If panel available in RMU	Space availability if additional RMU Required.	Name of 2nd ESS	Panel No. If panel available in RMU	Space availability if additional RMU Required.

RMU Proposal

Breaker Rating	4 Way I/D	4 Way O/D	3 Way I/D	3 Way O/D	Plinth	Fencing
	5 Way I/D (No)	5 Way O/D	6 Way I/D (No)	6 Way O/D (No)		

DT Proposal (Aug/Addition)

Existing nos. Of DT	Peak Load of Existing DT	No. Of LT Panel Feds DT	LT Fdr 1. Peak	LT Fdr 2. Peak	LT Fdr-3. Peak	LT Fdr-4. Peak	LT Fdr-5. Peak

KVA rating	No. Of DT	Requirement of plinth	Fencing (SQ.M)	space Availability	LT Feeders (No.)	Feeding arrangement GO/RMU

LT Feeder Proposal

O/H Bare (Mtr)	O/H LT ABC (Mtr.)	U/G Cable (Mtr)	LT cable (Qty)	ACB/MCCB (Nos.)	Feeder/Service Pillar (Nos.)	Tyco Box (Qty.)

HT Metereing Proposal

Metereing Cubicle (CT Ratio)	Metering Cubicle (No.)	Feeding arrangement-GO/RMU	Room for RMU (as per standard)	Room for Metering Cubicle (As per standard)	Plinth for RMU	Plinth for Metering Cubicle

Requirement of Land for ESS

For 11kV ESS			For Grid		
Land provided by RWA / Applicant	Existing ESS	Land required from GONCTD	Existing Grid	Land provided by RWA	Land required from

Saftey Items Proposal

Trench Cover	Locks	Lighting Arrangement	Exhaust Fan	Fire Extinguisher	Safety Charts	Rubber Mat	Danger Board

Remarks / Comments / Concerns: (Sick cables, Weak links, etc., If any)

- Estimate / work will be executed under 6% deposite work Scheme.

Scope of work discussed during site visit

1. Only 1 No. of new 3 way RMU with metering unit is porposed. (Concern asked to consider RMU with metering unit)

Existing Network Arrangement / Single Line Diagram

Proposed Network Arrangement / Single Line Diagram

Major Material

Material Description	Qty	Material Description	Qty

Site Sketch

ROW Issues(if any)

Row issue will be resolved by Rly.

Safety Issues(if any)

Company / Department	(Name of the Officer, Designation,Contact No) (in block Letters)	E.No	Sign.& Date
NEG	Pramod Ranjan Sah	520216	
MRT	Bijay Prasad Pallvi	112402	
KCG			
Projects			
Division	Harekrishna Nathi	104588	
Distribution Services			
Consumer Rep.	S. Rout.	7008564128	