

# COMPENSATION PLAN FOR TEMPORARY DAMAGES (CPTD)

FOR

**T&D NETWORK IN WEST TRIPURA, SOUTH TRIPURA,  
KHOWAI & SEPAHIJALA DISTRICTS IN TRIPURA**



Prepared By

Environment and Social Management

**POWER GRID CORPORATION OF INDIA LTD.**

For

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL)**

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## LIST OF ABBREVIATIONS

ADC	:	Autonomous District Council
AP	:	Affected Person
CEA	:	Central Electricity Authority
Ckt-Km	:	Circuit-kilometer
CGWB	:	Central Ground Water Board
CP	:	Compensation Plan
CPTD	:	Compensation Plan for Temporary Damages
CPIU	:	Central Project Implementation Unit
CRM	:	Contractor Review Meeting
DC	:	District Collector
D/c	:	Double Circuit
DL	:	Distribution Line
DM	:	District Magistrate
DMS	:	Distribution Management System
EHV	:	Extra High Voltage
EHS	:	Environment Health & Safety
EMP	:	Environment Management Plan
E&S	:	Environmental & Social
ESPP	:	POWERGRID's Environmental and Social Policy & Procedures
ESPPF	:	TSECL's Environmental and Social Policy & Procedures Framework
GoI	:	Government of India
GRC	:	Grievance Redress Committee
GRM	:	Grievance Redress Mechanism
Ha	:	Hectare
HPC	:	High Powered Committee
IA	:	Implementing Agency
INRs	:	Indian National Rupees
IP	:	Indigenous People
IR	:	Involuntary Resettlement
JCC	:	Joint Coordination Committee
kV	:	Kilo volt
Km	:	Kilometer
LA	:	Land Acquisition
MCM	:	Million Cubic Meter
MoP	:	Ministry of Power
M&E	:	Monitoring and Evaluation
NoC	:	No Objection Certificate
NER	:	North Eastern Region
NERPSIP	:	North Eastern Region Power System Improvement Project
O&M	:	Operation and Maintenance
OP	:	Operational Policy
PAP	:	Project Affected Person
POWERGRID	:	Power Grid Corporation of India Limited
PPIU	:	PMC Project Implementation Unit
RFCTLARRA	:	The Right to Fair Compensation and Transparency in Land, Acquisition, Rehabilitation and Resettlement Act, 2013
RoW	:	Right of Way
RP	:	Resettlement Plan
R&R	:	Resettlement and Rehabilitation
S/c	:	Single Circuit

SC	:	Scheduled Caste
Sq.M.	:	Square Meters
SMF	:	Social Management Framework
SPCU	:	State Project Coordination Unit
ST	:	Scheduled Tribe
T & D	:	Transmission & Distribution
TL	:	Transmission Line
TSECL	:	Tripura State Electricity Corporation Limited
TTADC	:	Tripura Tribal Autonomous District Council
USD	:	United States Dollar
WB	:	The World Bank

## **GLOSSARY**

TTADC/Autonomous District Council/ Village Council	:	An autonomous body/institution formed under the provisions of 6 <sup>th</sup> Schedule of Constitution of India which provides tribal people freedom to exercise legislative, judicial, executive and financial powers.
Zila/District	:	It is the first administrative division at the State level.
Sub-division	:	A revenue sub-division, within a district.
Block	:	An administrative sub-division within a district.
Panchayat	:	The third tier of decentralized governance.

## EXECUTIVE SUMMARY

i. The Compensation Plan for Temporary Damages (CPTD) has been prepared for Transmission & Distribution (T & D) network in West Tripura, South Tripura, Khowai & Sepahijala districts of Tripura State under the North Eastern Region Power System Improvement Project (NERPSIP) which is being funded by Govt. of India (GoI) and the World Bank (WB). The Implementing Agency (IA) is Power Grid Corporation of India Limited (POWERGRID). The CPTD is guided by laws and regulations of the Government of India/ State Govt viz. The Electricity Act, 2003, The Indian Telegraph Act, 1885, MoP guidelines of Oct.' 2015 on RoW Compensation, Tripura State Electricity Corporation Limited (TSECL)'s Environmental and Social Policy & Procedures Framework (ESPPF) and World Bank's Operational Policies.

ii. The project components include construction of 4 nos. 132 kV D/C line of 89.343 km length & 24 nos. of 33kV distribution lines of total 213.595 km length along with associated 3 nos. of new 132/33kV substations & 15 nos. new 33/11kV substations located West Tripura, South Tripura, Khowai & Sepahijala districts of Tripura. The present CPTD has been prepared based on the detailed survey/ investigation. However, the temporary impacts on land and loss of crops/trees occurred only during the project implementation/construction. Therefore, the CPTD remains as draft, as actual temporary impacts on crop/tree including details of Affected Persons (AP) shall be ascertained during check survey and tower spotting once the construction contractor is mobilized for implementation. TSECL/ POWERGRID<sup>1</sup> provide compensation for actual damages after assessment by revenue authority. Check survey is done progressively during the construction of the transmission/distribution line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission/distribution lines in three stages i.e. after completion of foundation, tower erection and stringing of conductor. The payment of compensation may also be paid in three instances, if there are different damages during all the above three activities. Assessment of damages at each stage and payment of compensation is a simultaneous and continuous activity. Hence, CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by TSECL/POWERGRID.

iii. The project components under the scope of present CPTD include following transmission/ distribution lines and associated substations;

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<sup>1</sup> For the purpose of CPTD, TSECL and POWERGRID may be referred as SPCU and PPIU respectively. For further details, please refer Chapter - VII Institutional arrangements.

### **A. Transmission Components:**

1. Rokhia - Rabindranagar 132 kV D/C line – **22.031 km**
2. Rabindranagar – Belonia 132 kV D/C line – **63.152 km**
3. LILO of 132kV Rokhia- Surjamaninagar line at Gokulnagar – **2.92 km**
4. LILO of 132kV Agartala-Dhalabil line at Mohanpur – **1.24 km**
5. Establishment of 132/33KV new substation at Rabindranagar, Gokulnagar & Mohanpur
6. Extension of 132/33 kV Rokhia, Dhalabi & Jirania

### **B. Distribution Components:**

1. 33 kV line from 33/11 kV Khowai– 132/33 kV Dhalabil substation – **6.643 km**
2. 33 kV line from 33/11 kV Khowai - 33/11 kV Ampura substation - **13.129 km**
3. 33 kV line from 33/11 kV Simna - 33/11 kV Hezamara substation - **11.979 km**
4. 33 kV line from 33/11 kV Simna - 33/11 Tapping of Mohanpur – Hezamara line - **14.523 km**
5. 33 kV line from 33/11 kV Barkathal - 33/11 kV Hezamara substation – **11.67 km**
6. 33 kV line from 33/11 kV Barkathal - 132/33 kV Mohanpur substation - **9.442 km**
7. 33 kV line from 33/11 kV Bamutia - 33/11 kV Durjoynagar substation - **14 km**
8. 33 kV line from 33/11 kV Bamutia - 33/11 kV Lembucherra substation – **8.121 km**
9. 2 x 33 kV line from 33/11 kV Lembucherra - LILO of 33kV Agartala-Mohanpur line - **1.051 km**
10. 2 x 33 kV line from 33/11 kV Champaknagar- 132/33kV Jirania substation – **5.957 km**
11. 2 x 33 kV line from 33/11 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania line – **0.809 km**
12. 33 kV line from 33/11 kV ADC Head Qtr. - 132/33kV Jirania substation - **3.546 km**
13. 33 kV line from 33/11 kV ADC Head Qtr. -33/11kV Champaknagar – **10.756 km**
14. 33 kV line from 33/11 kV Munkiakami - LILO of 33kV Ambasa- Teliamura line – **6.631 km**
15. 2 x 33 kV line from 33/11 kV Sekerkote - LILO of 33kV Badharghat- Jangalia line – **10 km**
16. 33 kV line from 33/11 kV Golaghati- 132/33 kV Gakulnagar substation – **13.808 km**
17. 33 kV line from 33/11 kV Golaghati -33/11 kV Takarjala substation - **10.464 km**
18. 33 kV line from 33/11 kV Durganagar - 132/33 kV Gakulnagar substation – **7.005 km**
19. 33 kV line from 33/11 kV Durganagar - 33/11kV Madhupur substation – **10.703 km**
20. 33 kV line from 33/11 kV Nidya - 33/11 kV Kathalia substation - **9.364 km**
21. 33 kV line from 33/11 kV Nidya - 33/11 kV Rajnagar substation - **17.745 km**
22. 33 kV line from 33/11 kV Nalchar - 33/11 kV Melaghar substation – **6.742 km**
23. 33 kV line from 33/11 kV Nalchar- 33/11 kV Bishramganj substation – **8.7 km**
24. 33 kV line from 33/11 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala line – **0.807 km**
25. Establishment of new 33/11 kV substation at Khowai, Simna, Barkathal, Bamutia, Lembucherra, Champaknagar, Ranir Bazar, ADC Head Quarter, Munkiakami, Sekerkote Golaghati, Durganagar, Nidya, Nalchar & Gabardi.

iv. As per existing law, land for tower/pole and right of way is not acquired<sup>2</sup> and agricultural activities are allowed to continue after construction activity. Land requirements for erecting tower/poles for transmission/ distribution lines are just minimal. All it requires is to place the foot, four of which warrants an area of 4-6 sq- ft. Thus, the actual impact is restricted to 4 legs of the tower. Further, line alignments are done in such a way so as to avoid settlements and / or structures and hence no relocation of population on account of Transmission Line (TL)/ Distribution Line (DL) is envisaged. Most of the impacts are temporary in nature in terms of loss of standing crops/trees and other damages for which compensation will be paid to the affected persons/ community for all damages including cost of land below tower to its owner without acquiring it as per the laws and provisions laid in ESPPF.

v. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though Right of Way (RoW) for 132 kV & 33 kV line are 27 meter & 15 meter respectively but average affected width/corridor would be limited to maximum 20 meter for 132 kV & 10 meter for 33 kV line. Accordingly, actual impacted area for crops and other damages worked out to be approx. 262.585 acres. Total number of trees to be affected is 46060. Additionally 1633 bamboo will be affected during construction of line. Private trees will be compensated as per the entitlement matrix. The total number of affected persons is estimated to be 983.

v. Public participation and community consultations have been taken up as an integral part of the project's social and environmental assessment process. Public is informed about the project at every stage of execution. During survey TSECL & POWERGRID's site officials meet people and inform them about the routing of transmission line. During the construction, every individual, on whose land tower is erected and people affected by RoW, are consulted. There were many informal group and public consultation meetings conducted during survey of the entire routes of transmission/distribution lines and substation site. The process of such consultation to be continued during project implementation and even during Operation & Maintenance (O&M) stage. The draft/summary CPTD will be disclosed to the affected households and other stakeholders by placing it on website. TSECL & POWERGRID's site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. The executive summary of the CPTD/ Entitlement Matrix in local language will be placed at construction offices/sites.

vi. Grievance Redress Mechanism (GRM) is an integral part of project implementation, operation and maintenance stage of the project. For handling grievance, Grievance Redress

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<sup>2</sup> As per the present provision in the Electricity Act, 2003 read with relevant provisions of Indian Telegraph Act, 1885 all the damages without acquisition of subject land) accrued to person while placing the tower and line are to be compensated.



Committee (GRC) has been established at two places; project/scheme level and corporate/head quarter level. The GRCs include members from TSECL, POWERGRID, Local Administration, Village Panchayat Members, Affected Persons representative and reputed persons from the society and representative from the tribal autonomous district councils selected/decided on nomination basis under the chairmanship of project head. The composition of GRC has been disclosed in Panchayat/village council office and concerned district headquarter for wider coverage. In case of any complaint, GRC meeting shall be convened within 15 days. If project level GRC is not able to take decision it may refer the complaint to corporate GRC for solution. GRC endeavours to pronounce its decision within 30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review. The proposed mechanism does not impede access to the country's judicial or administrative remedies at any stage. Further, grievance redressal is also in built tree/crop compensation in the process where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector also provides forum for raising the grievance towards any irregularity/complaint.

vii. The CPTD is based on the World Bank Safeguard Policies as well as TSECL 's ESPPF and law of the land. Being a transmission project, the relevant national laws applicable for this project are (i) The Electricity Act, 2003 and (ii) The Indian Telegraph Act, 1885 and (iii) MoP Guidelines of Oct.' 2015 on RoW Compensation. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Governments of India, TSECL's ESPPF as well as World Bank Safeguard Policies.

viii. APs will be entitled for compensation for temporary damages to crops/trees/structures etc. as per the Entitlement Matrix given in **E-1**. Temporary damage will occur during construction of transmission/distribution lines for which compensation is paid as per relevant norms. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. One time lump sum assistance to vulnerable households on recommendation of State Authority. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. TSECL /IA will provide compensation to all APs including non-title holders as already mentioned in the entitlement matrix.

#### **E-1: Entitlement Matrix**

<b>Sl.</b>	<b>Type of Issue/ Impact</b>	<b>Beneficiary</b>	<b>Entitlement Options</b>
1.	Land area below tower base	Owner	100% land cost at market value as ascertained by revenue authorities or based on negotiated settlement

Sl.	Type of Issue/ Impact	Beneficiary	Entitlement Options
			without actual acquisition/title transfer.
2.	Land coming in corridor of width of Right of Way (#)	Owner	15% of land cost as decided by District Commissioner or any other competent authority
3.	Loss/damage to crops and trees in line corridor	Owner/ Tenant/ sharecropper/ leaseholder	Compensation to actual cultivator at market rate for crops and 8 years income for fruit bearing trees*. APs will be given advance notice to harvest their crops. All timber* will be allowed to retain by the owner.
4..	Other damages (if applicable)	All APs	Actual cost as assessed by the concerned authority.
5.	Loss of structure		
(i)	House	Titleholders	Cash compensation at replacement cost (without deduction for salvaged material and depreciation value) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below.
(ii)	Shop/ Institutions/ Cattle shed	Individual/ Titleholders	Cash compensation plus Rs. 10000/- for construction of working shed/shop plus transition benefits as per category-5 below
6.	Losses during transition under (i) & (ii) above for Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
7.	Tribal/ Vulnerable APs	Vulnerable APs <sup>3</sup>	One time additional lump sum assistance not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC.

(#) Compensation for land value as per MoP guidelines dated 15.10.2015 shall be paid once Govt. of Tripura adopts the said guidelines for implementation.

\* Assistance/help of Forest department for timber yielding trees and Horticulture department for fruit bearing trees shall be taken for assessing the true value.

ix. No physical displacement is envisaged in the proposed project. Major damages in transmission/distribution line are not envisaged due to flexibility in routing of line. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as decided by committee based on government norms and entitlement matrix shall be provided. A notice for damage is issued to APs and the joint measurement by TSECL / POWERGRID and APs will be done and verified by revenue official for actual damages. Hence, compensation is paid parallelly with the construction activity of transmission/distribution line. The cost estimate for the project includes eligible compensation for loss of crops, trees, and support cost for implementation of CPTD, monitoring, other administrative

<sup>3</sup> Vulnerable APs include scheduled tribes residing in scheduled areas/ physically handicapped/ disabled families etc.

cost etc. This is a tentative budget which may change during the original course of implementation. The total indicative cost is estimated to be INR 1885.772 Lakhs equivalent to USD 2.74 million.

x. The implementation and monitoring are critical activities which shall be followed as per Implementation Chart/Schedule provided in Chapter-X. POWERGRID will be the Implementing Agency (IA) for the Project. For the day to day implementation of Project activities, PMC Project Implementation Units (PPIUs) located in each participating State, has been formed including members of Utility on deputation, with its personnel being distributed over work site & working in close association with the State Project Coordination Unit (SPCU) / Central Project Implementation Unit (CPIU). PPIU report to State level “Project Manager” nominated by the Project-in-Charge of IA. The IA will have a Core team stationed at the CPIU on permanent basis and other IA officers (with required skills) will visit as and when required by this core team. This team shall represent IA and shall be responsible for all coordination with SPCU, PIU, within IA and MoP, GoI. CPIU shall also assist MoP, GoI in monitoring project progress and in its coordination with The Bank.

xi. Public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Monitoring will be the responsibility of both TSECL & IA. TSECL / POWERGRID will submit semi-annual monitoring reports on their implementation performance and submit the reports to The World Bank. If required, TSECL / POWERGRID will engage the services of an independent agency/external monitoring for which necessary provisions have been kept in the budget.

# I. INTRODUCTION AND PROJECT DESCRIPTION

## 1.1. Project Background

1. Recognizing that intrastate T&D systems in the North Eastern States (NER) states have remained very weak and that there is a critical need to improve the performance of these networks, the Central Electricity Authority (CEA) developed a comprehensive scheme for the NER in consultation with POWERGRID and the concerned state governments. This scheme is intended to (a) augment the existing T&D infrastructure to improve the reliability of service delivery across all the NER states and (b) build institutional capacity of the power utilities and departments in the NER. This scheme is part of the GoI's wider efforts to develop energy resources in the NER for electricity supply within the region, to strengthen transmission networks, expand and strengthen sub-transmission systems, and extend last mile electricity connectivity to household.

2. GoI requested for World Bank's support in implementing a set of priority investments in six NER states. In 2016, the World Bank (WB) has approved a loan (IBRD 470 USD Million) to the Government of India (GoI) for North Eastern Region Power System Improvement Project (NERPSIP) which aims to create a robust intrastate transmission and distribution network in all the six (6) North Eastern States including Tripura. The project being funded on 50:50 (World Bank loan: GoI) basis except the component of capacity building for Rs.89 crore, which GoI will bear entirely. The scheme is to be taken up under a new Central Sector Plan Scheme of Ministry of Power (MoP).

3. Ministry of Power, GoI has appointed POWERGRID as Implementing Agency (IA) to six North Eastern States for the said project. However, the ownership of the assets shall be with the respective State Utilities/State Government which upon progressive commissioning shall be handed over to them for taking care of Operation and Maintenance of assets.

4. The project will be implemented over a seven-year period and has two components, namely Component A: Priority Investments for Strengthening Intrastate Transmission, Sub-transmission, and Distribution Systems, and Component B: Technical Assistance for Capacity Building and Institutional Strengthening (CBIS) of Power Utilities and Departments of Participating States.

5. The scope of work under NERPSIP in state of Tripura include construction of 261 km of 132 kV transmission lines & associated 16 nos. (09 nos. New, 07 nos. Extension) and 1091 ckm of 33 kV distribution lines & associated 61 nos. distribution substations (34 nos. New & 27 nos.

Extension/ Augmentation/Strengthening) spread across the State. The power map of Tripura indicating the existing intra-state transmission network along with proposed project under Tranche-1 of NERPSIP is presented in **Figure 1.1**.

## **1.2. Project Components**

6. The project components under the scope of present CPTD include following transmission/ distribution lines and associated Transmission & Distribution substations proposed in West Tripura, South Tripura, Khowai & Sepahijala districts of Tripura State;

### **A. Transmission System:**

1. Rokhia - Rabindranagar 132 kV D/C line – **22.031 km**
2. Rabindranagar – Belonia 132 kV D/C line – **63.152 km**
3. LILO of 132kV Rokhia- Surjamaninagar line at Gokulnagar - **2.92 km**
4. LILO of 132kV Agartala-Dhalabil line at Mohanpur – **1.24 km**
5. Establishment of 132/33KV new substation at Rabindranagar, Gokulnagar & Mohanpur
6. Extension of 132/33 kV Rokhia, Dhalabi & Jirania

### **B. Distribution System :**

1. 33 kV line from 33/11 kV Khowai– 132/33 kV Dhalabil substation – **6.643 km**
2. 33 kV line from 33/11 kV Khowai - 33/11 kV Ampura substation – **13.129 km**
3. 33 kV line from 33/11 kV Simna - 33/11 kV Hezamara substation - **11.979 km**
4. 33 kV line from 33/11 kV Simna - 33/11 Tapping of Mohanpur – Hezamara line- **14.523 km**
5. 33 kV line from 33/11 kV Barkathal - 33/11 kV Hezamara substation – **11.67 km**
6. 33 kV line from 33/11 kV Barkathal - 132/33 kV Mohanpur substation - **9.442 km**
7. 33 kV line from 33/11 kV Bamutia - 33/11 kV Durjoynagar substation - **14 km**
8. 33 kV line from 33/11 kV Bamutia - 33/11 kV Lembucherra substation - **8.121 km**
9. 2 x 33 kV line from 33/11 kV Lembucherra - LILO of 33kV Agartala-Mohanpur Line - **1.051 km**
10. 2 x 33 kV line from 33/11 kV Champaknagar- 132/33kV Jirania substation - **5.957 km**
11. 2 x 33 kV line from 33/11 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania line - **0.809 km**
12. 33 kV line from 33/11 kV ADC Head Qtr. - 132/33kV Jirania substation - **3.546 km**
13. 33 kV line from 33/11 kV ADC Head Qtr. -33/11kV Champaknagar – **10.756 km**
14. 33 kV line from 33/11 kV Munkiakami - LILO of 33kV Ambasa- Teliamura line – **6.631 km**
15. 2 x 33 kV line from 33/11 kV Sekerkote - LILO of 33kV Badharghat- Jangalia line – **10.0 km**
16. 33 kV line from 33/11 kV Golaghati- 132/33 kV Gakulnagar substation – **13.808 km**
17. 33 kV line from 33/11 kV Golaghati -33/11 kV Takarjala substation - **10.464 km**
18. 33 kV line from 33/11 kV Durganagar - 132/33 kV Gakulnagar substation - **7.005 km**

19. 33 kV line from 33/11 kV Durganagar - 33/11kV Madhupur substation – **10.703 km**
20. 33 kV line from 33/11 kV Nidya - 33/11 kV Kathalia substation - **9.364 km**
21. 33 kV line from 33/11 kV Nidya - 33/11 kV Rajnagar substation – **17.745 km**
22. 33 kV line from 33/11 kV Nalchar - 33/11 kV Melaghar substation - **6.742 km**
23. 33 kV line from 33/11 kV Nalchar- 33/11 kV Bishramganj substation - **8.7 km**
24. 33 kV line from 33/11 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala line – **0.807 km**
25. Establishment of new 33/11 kV substation at Khowai, Simna, Barkathal, Bamutia, Lembucherra, Champaknagar, Ranir Bazar, ADC Head Quarter, Munkiakami, Sekerkote Golaghati, Durganagar, Nidya, Nalchar & Gabardi.

7. The schematic diagram of proposed transmission and distribution network under Tranche-1 of NERPSIP is shown in **Figure 1.2**

Figure 1.1: Power Map of Tripura along with proposed project

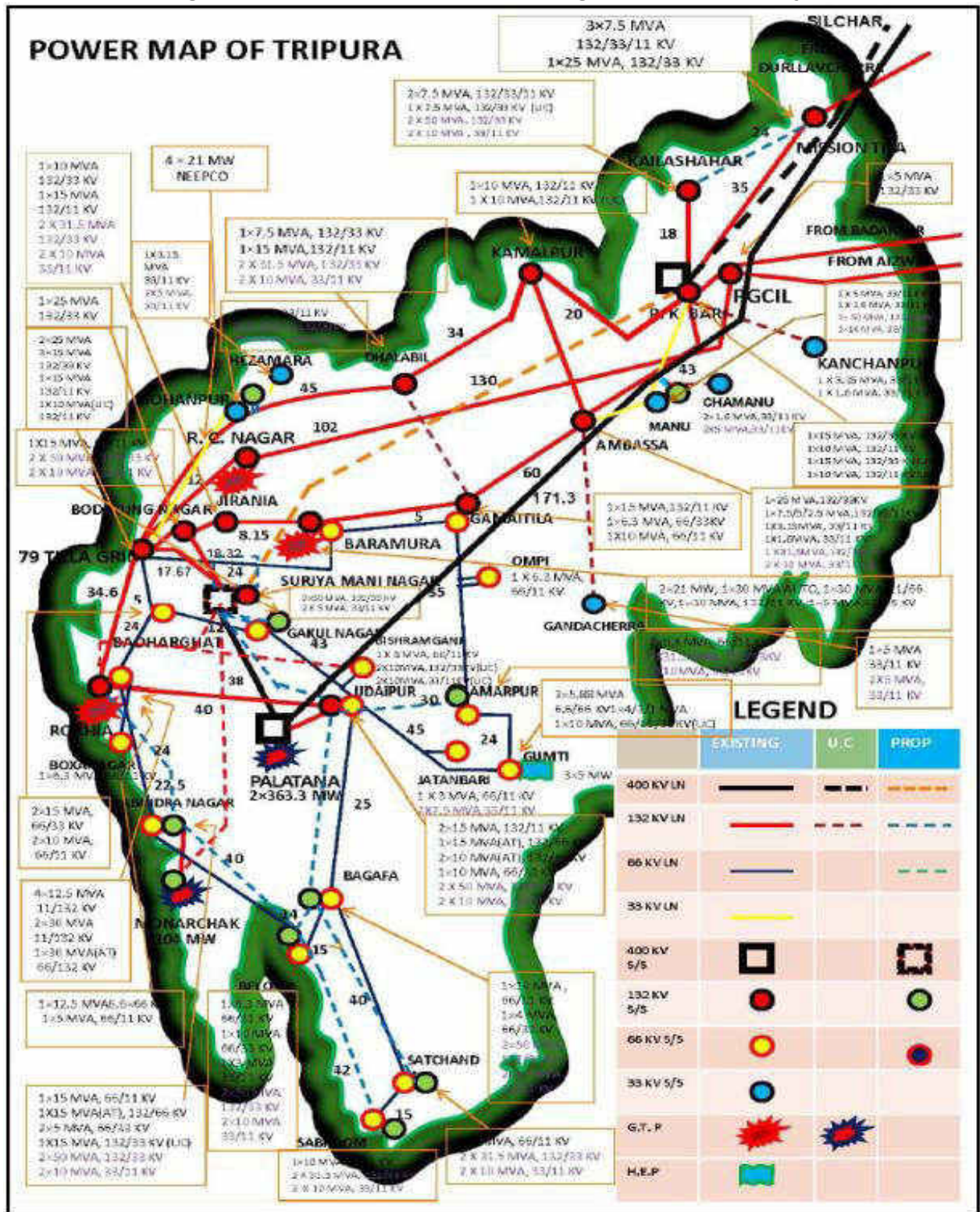
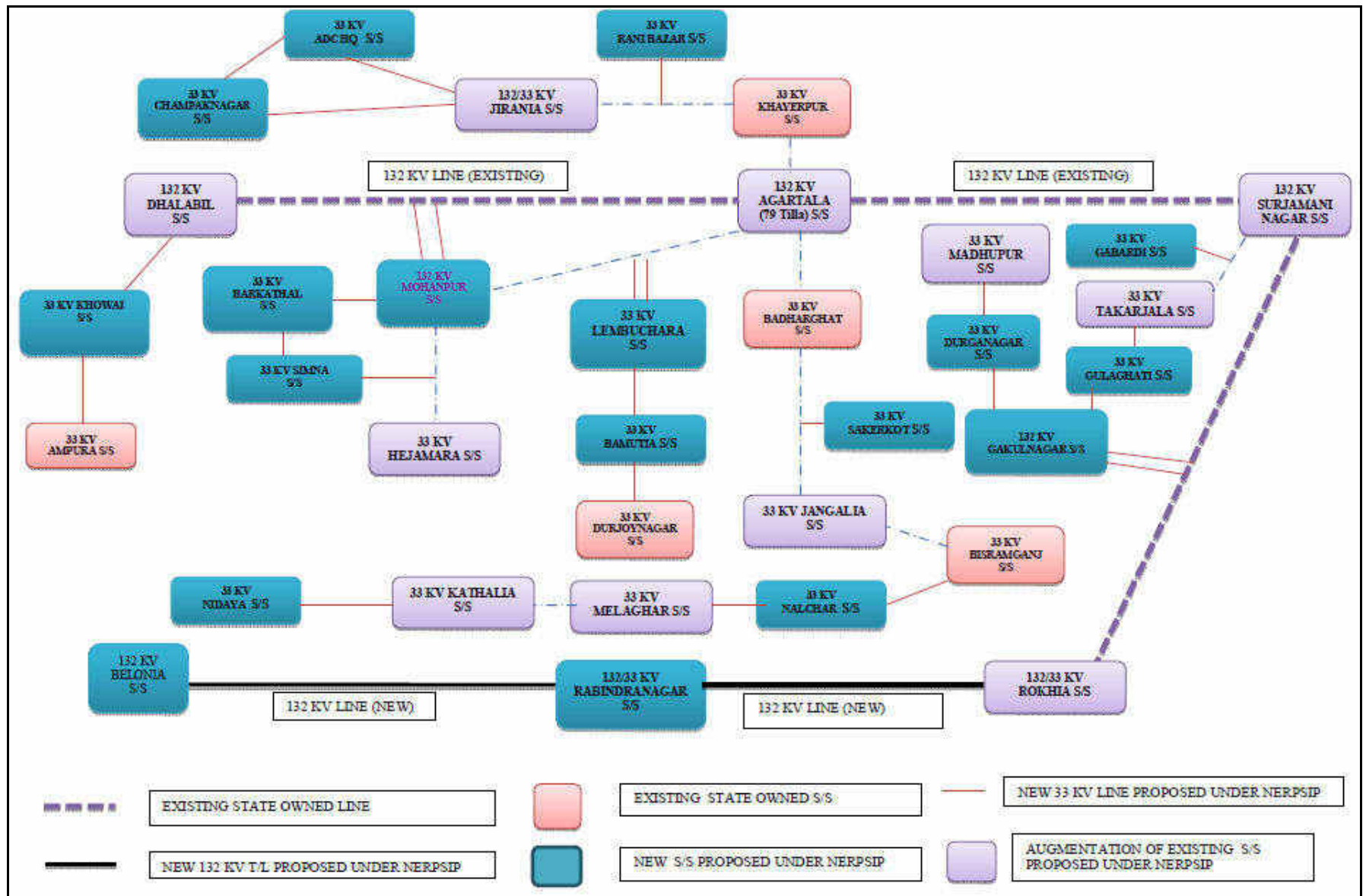


Figure 1.2 : Proposed T & D Network in West Tripura, South Tripura, Khowai & Sepahijala Districts under NERPSIP





### **1.3. Objective of Compensation Plan for Temporary Damages (CPTD)**

8. The primary objective of the CPTD is to identify impacts/damages and to plan measures to mitigate losses likely to be caused by the projects. The CPTD is based on the general findings of field visits, preliminary assessments and meetings with various project-affected persons in the project areas. The CPTD presents (i) introduction and project description (ii) socio-economic information and profile (iii) legal & regulatory framework (iv) project impacts,(v) entitlement, assistance and benefit (vi) information disclosure, consultation and participation (vii) institutional arrangements (viii) grievance redress mechanism (ix) budget (x) implementation schedule & (xi) monitoring and reporting. The CPTD is guided by The Electricity Act, 2003, The Indian Telegraph Act, 1885, MoP guidelines of 15<sup>th</sup> October 2015 on RoW Compensation, TSECL's ESPPF and World Bank's Safeguard Policies.

### **1.4. Scope and Limitation of the CPTD**

9. Based on the assessment of proposed project components and intervention, it has been established that there will be no permanent land acquisition required and the anticipated project impacts are temporary in nature in terms of impacts on land and loss of standing crops/trees only. The present CPTD has been prepared based on the detailed survey/ investigation. However, the temporary impacts on land and loss of crops/trees occurred only during the project implementation/construction. Therefore, the CPTD remains as draft, as actual temporary impacts on crop/tree including details of Affected Persons (AP) shall be ascertained during check survey and tower spotting once the construction contractor is mobilized for implementation. TSECL/POWERGRID<sup>4</sup> provide compensation for actual damages after assessment by revenue authority. Check survey is done progressively during the construction of the transmission/distribution line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission/distribution lines in three stages i.e. after completion of foundation, tower erection and stringing of conductor. The payment of compensation shall be paid in three instances, if there are different damages during above all the three activities. Assessment of damages at each stage and payment of compensation is a simultaneous and continuous activity. Hence, CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by TSECL/POWERGRID.

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<sup>4</sup> For the purpose of CPTD, TSECL and POWERGRID may be referred as SPCU and PPIU respectively. For further details, please refer Chapter - VII Institutional arrangements.

## **1.5. Measures to Minimize Impact**

10. In keeping with provisions of ESPPF and Bank's Safeguard Policies, TSECL/ POWERGRID has selected and finalised the routes of transmission line with due consideration of the avoidance or minimization of impacts toward temporary damages on crops/ trees/ structures, if any coming in the Right of Way (RoW) during construction. Similarly, the route of all the 33 KV distribution lines are mostly selected /finalized along the existing roads (PWD roads/Village roads etc.) involving minimum habituated areas and also through agricultural and barren lands wherever possible. Further field visits and public consultations helped in developing the measures towards minimizing negative social impacts, if any.

11. For transmission/distribution line there is no permanent land acquisition involved as per applicable legal framework i.e. in exercise of the powers under Indian Telegraph Act-1885. Part 3, section 10 to 16 conferred under Section 164 of the Electricity Act, 2003 through Deptt. of Power, Govt. of Tripura vide notification dated 20<sup>th</sup> June 2014, TSECL have the mandate to place and maintain transmission lines under/ over/ along or across and posts in or upon, any immoveable property. However, clause 10 (d) of same act stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Therefore, TSECL/ POWERGRID have developed a procedure which is designed to minimize impacts, during the preliminary survey/ investigation (for screening & scoping of the project with at least 3 alternative route alignments), thereafter during detailed survey (spot)/design followed by foundation work, tower erection and during the stringing of conductors.

12. All tower foundations and tower footings are dug and laid, including transportation of material and land clearance, generally at the end of a crop season to avoid impacts on cultivations and need for compensation. After construction of transmission towers, farmers are allowed to continue agricultural activity below tower.

13. Because the concrete needs time to dry and settle, all towers are erected normally three weeks after casting of foundation. Thus, both foundation and erection works are generally completed in one gap between two crop seasons.

14. Given the limited time needed for the stringing, the latter can be done right after the tower construction, before the following crop season.

15. For this reason no household is significantly affected due to the project. Thus, productive loss due to construction is negligible. However, due care shall be taken to avoid damages to

crop/trees by taking up the construction activities during lean period or post-harvest season. As per the prevailing norms farming activity shall be allowed after the construction work is completed. All affected farmers will be compensated for all sorts of damages during construction as per the laid down procedure.

## **1.6. Route Selection and Study of Alternatives**

16. For selection of optimum route, the following points are taken into consideration:

- (i) The route of the proposed transmission/distribution lines does not involve any human displacement/rehabilitation.
- (ii) Any monument of cultural or historical importance is not affected by the route of the transmission/distribution line.
- (iii) The proposed line route does not create any threat to the survival of any community with special reference to Tribal Community.
- (iv) The proposed line route does not affect any public utility services like playgrounds, schools, other establishments etc.
- (v) The line route does not pass through any National Parks, Sanctuaries etc.
- (vi) The line route does not infringe with area of natural resources.

17. In order to achieve this, TSECL /POWERGRID undertake route selection for individual line in close consultation with representatives of concerned Forest Department and the Department of Revenue. Although under the law, TSECL has the right of eminent domain yet alternative alignments are considered, keeping in mind, the above-mentioned factors during site selection, with minor alterations often added to avoid environmentally sensitive areas and settlements at execution stage.

- a. As a rule, alignments are generally cited away from major towns, whenever possible, to account for future urban expansion.
- b. Similarly, forests are avoided to the extent possible, and when it is not possible, a route is selected in consultation with the local Divisional Forest Officer, that causes minimum damage to existing forest resources.
- c. Alignments are selected to avoid wetlands and unstable areas for both financial and environmental reasons.

18. In addition, care is also taken to avoid National Parks and Wildlife Sanctuaries and any other forest area rich in wildlife. Keeping above in mind the route of proposed lines have been so

aligned that it takes care of above factors. As such different alternatives were studied with the help of Govt. published data like Forest atlas, Survey of India topo maps, satellite imageries etc. to arrive at most optimum sections of the route which can be taken up for detailed survey and assessment of environmental & social impacts for their proper management.

19. The comparative details of three alternatives in respect of proposed lines are presented in **Annexure-1**.

## II. SOCIOECONOMIC INFORMATION AND PROFILE

### 2.1. General

20. The socio-economic profile of the project area is based on general information collected from various secondary sources. As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures adequate compensation as per norms shall be paid to all APs. This chapter provides broad socio-economic profile in terms of demography, literacy, employment and other infrastructure etc. in the State of Tripura and project districts in particular i.e. West Tripura, South Tripura, Khowai & Sepahijala through which the various lines will traverse. It may be noted that Sepahijala & Khowai district were carved out from West Tripura district in January 2012 and due to non-availability socio economic information these districts separately, data of undivided West Tripura district has been provided. Following section briefly discuss socio-economic profile of the State and project area districts in particular.

### 2.2. Socio-Economic Profile

#### 2.2.1. Land Use

21. Tripura, is situated in the north eastern part of the country and shares international border with Bangladesh from three sides The area of the State is 10,491 sq. km which forms 0.32% of country's geographical area. The State lies between latitude 22°57' N and 24°33' N and longitude 91°10' and 92°20' E in North Eastern Region physiographic zone. The general land use pattern of the State is given in **Table 2.1**.

**Table-2.1 Land use Pattern**

Land Use	Area in '000 ha	Percentage
Total geographical area	1,049	
Reporting area for land utilization	1,049	100.00
Forests	629	59.96
Not available for cultivation	141	13.44
Permanent pastures and other grazing lands	02	0.19
Land under misc. tree crops & groves	14	1.33
Culturable wasteland	04	0.38
Fallow lands other than current fallows	02	0.19
Current Fallows	02	0.19
Net area sown	256	24.40

*Source: Land use statistics, Ministry of Agriculture, GOI, 2011-12*

22. Sepahijala & Khowai district were created from West Tripura district in January 2012. Erstwhile West Tripura district (including the area of newly created Sepahijala district & Khowai)

lies between latitude 23°16' and 24°14'N and longitude 91°09' and 91°47' E. The district is bounded by Bangladesh in north and east, by North Tripura district in the east and by South Tripura district in the south. Total geographical area of the district is 3544 sq km. The district headquarters are located at Agartala, which is also the capital of the Tripura state.

23. South Tripura district situated approximately between latitude 22°56' and 23°45' N and longitude 91°18' and 91°59' E. The South Tripura district is bounded on the North by Dhalai district and West Tripura district, while on the other sides by international border with Bangladesh. The total geographical area of South Tripura district is 1514.3 Sq.km

### **2.2.2. Climate**

24. The State has a tropical savanna type climate, designated under the Köppen climate classification. The undulating topography leads to local variations, particularly in the hill ranges. The four main seasons are winter from December to February, pre-monsoon or summer from March to April, monsoon from May to September and post-monsoon from October to November. During the monsoon season the south west monsoon brings heavy rains, which cause frequent floods.

25. West Tripura district has monsoon influenced humid subtropical climate with large amount of rain. The district experiences long, hot and wet summers lasting from April to October. Average temperatures are around 28°C, fluctuating with rainfall. Winter is short and mild starting from mid-November to early March with mostly dry conditions and average temperature of around 18°C. Similarly, the climate of the South Tripura district is mostly warm and is characterized by a humid summer and a dry cool winter.

26. The annual rainfall of the State varies between 2,250 mm to 2,500 mm. Average annual rainfall is West Tripura and South Tripura districts is about 2300 mm & 2000 mm respectively.

### **2.2.3 Water Resources:**

27. The State of Tripura has rich water resources with the presence of as many as ten major rivers, including Gumti, Manu-Deo and Khowai. All rivers are rain-fed and ephemeral in nature. All major rivers originate from hill ranges and show a typical drainage pattern called trellis, except a few instances of dendrite pattern. A study of basin characteristics by CSME (1989) indicate that eight of the ten basins are within the territorial limit of Tripura while basin areas of river Fenni and

Langai are shared by two Indian States viz. Tripura and Mizoram and Bangladesh. Collectively basin area of ten major rivers and other minor streams covers nearly 10,500 sq. km. In terms of percentage of the basin of individual rivers vis-a-vis, total basin Gumti (22.66%), is followed by Manu-Deo (18.36%) and Khowai.

28. The main rivers flowing through subproject districts are Gumti, Khowai, Muhuri and Feni.

#### **2.2.4 Soil**

29. The soil in Tripura can be classified into five distinct categories i.e. 1) Red loamy soil and sandy soil (cover 43.07 % of the total land area of the State). 2) Reddish yellow brown sandy soil (cover 33.06 % of the land area of the State). The three other types of soil that prevail in the region are the 3) Lateritic soil 4) Younger Alluvial soil 5) Older alluvial soil. The factors influencing the prevalence of different types of soil in Tripura include topographical changes, climate changes, prevalent rock materials and the vegetation. Soil erosion caused by chemical weathering of the soil in the State of Tripura has led to the bed rock of the region being revealed

#### **2.2.5 Ecological Resources**

30. The total forest area is 6292.618 km<sup>2</sup> in the whole state. Reserved forest is 3588.183 km<sup>2</sup>, unclassified Government forest is 2195.473 km<sup>2</sup>, while proposed reserved forest is 509.025 km<sup>2</sup>. The forests in the state are mainly tropical evergreen, semi evergreen, and moist deciduous. Sizeable area is covered with bamboo brakes which virtually form a “Sub climax” resulting from shifting cultivation from time immemorial. Bamboo plays a very vital role in the economy of the State as it serves the artisan & non-artisan users of the state. The West Tripura and South Tripura districts are rich in forest resources with forest cover of 69.43% and 80.93% of total geographical area respectively. The state has two National Parks and four Wildlife Sanctuaries covering an area of 603.64 sq.km constituting 5.75% of the total geographical area of the State. The proposed transmission/distribution lines are not passing through any protected area like national parks, sanctuaries, and biosphere reserves etc, as all such areas have been completely avoided through careful route selection.

#### **2.2.6 Crops**

31. Tripura is an agrarian State with more than half of the population dependent on agriculture and allied activities. However, due to hilly terrain and forest cover, only 27% of the land is available

for cultivation. Rice, the major crop of the state, is cultivated in 91% of the cropped area. According to the Directorate of Economics & Statistics, Government of Tripura, in 2014-15, potato, sugarcane, pulses and jute were the other major crops cultivated in the State. Jackfruit and pineapple top the list of horticultural products. Traditionally, most of the indigenous population practiced jhum method (a type of slash-and-burn) of cultivation. The number of people dependent on jhum has declined over the years.

## **2.2.7 Human and Economic Development**

32. Tripura being a farming state, paddy is the major crop cultivated in 91% of total crop area across the State. Besides potato, sugarcane, pulses and jute also contribute significantly to the State agriculture. Pisciculture has made significant advances in the State. Tripura ranks second only to Kerala in the production of natural rubber in the country. The State is known for its handicraft, particularly hand-woven cotton fabric, wood carvings, and bamboo products. High quality timber including sal, garjan, teak and gamar are found abundantly in the forests of Tripura. The industrial sector of the State continues to be highly underdeveloped – brickfields and tea industry are the only two organised sectors. Tripura has considerable reservoirs of natural gas. According to estimates by Oil and Natural Gas Corporation (ONGC), the State has 400 billion cum reserves of natural gas, with 16 billion cum is recoverable. ONGC produced 480 million cum natural gas in the State, in 2006–07. In 2011 and 2013, new large discoveries of natural gas were announced by ONGC.

33. The economy of Tripura can be characterized by rate of poverty, low capital formation inadequate infrastructure facilities, Geographical isolation and communication bottleneck, inadequate exploration and use of forest and mineral resources, slow industrialization and high unemployment. More than 50% of the population depends on agriculture for sustaining their livelihood. However, share of agriculture and allied activities in Gross State Domestic Production (GSDP) is only 23% primarily due to low capital base in the sector.

34. The economy of West Tripura is predominantly agrarian. Paddy is the main agricultural crop accounting for majority of sown area. Wheat, Sugarcane, Pulses, fruits, cotton and potato are other major crops. Cattles and Poultry are the main livestock wealth of the district. Agartala being the state capital is a hub of various small scale industries including many export oriented industries. Mainly Cottage industry products like handloom products, baskets, cane products, bamboo made curies and tinned fruit products like orange squash, pineapple juice, and also pineapples are being exported. West Tripura's imports consist of manufactured goods such as



readymade garments, cotton yarn and twists, woollen goods, metals, machinery (for tea gardens) motor vehicles, cycles, hardware, sugar and molasses, kerosene oil, petrol, liquor paper, drugs and medicines, salt, spices, tobacco, coal, matches etc. This indicates a lack of manufacturing industries and consequently a low industrial base of the district.

35. Agriculture is the main profession/source of livelihood of the South Tripura district, with a net sown area of around 41,840 Ha. Paddy is the main food crop. Potato, sugarcane, jute and mustard are also grown. Fisheries and Animal Husbandry are other prominent sources of employment; current fish productivity of the district is 2281 kg/Ha/year. The district has not witnessed much industrial growth due to varied reasons, with presence of only two Industrial Areas located at Belonia and at Sabroom. There are about 132 nos. of reported registered factories in the district employing around 2250 workers. There are 5 nos. of Handloom units and around 18750 nos. of handloom weavers in the district. It has been informed that lack of reliable and uninterrupted power is considered to be major hurdle in the industrial development of the area.

## 2.2.8 Demography Features

### 2.2.8.1. Total Population

36. Total population in Tripura stands at 36,73,917 of which 27,12,464 (73.83%) population belong to rural area and 9,61,453 (26.17%) population belong to urban area. The West Tripura district has a total of 17,25,739 population of which 60.73% resides in rural areas and 39.27% belongs to urban areas. South Tripura has a total population of 8,76,001 with 85.69% and 14.04% of rural and urban population of the district respectively. Details are given in **Table 2.2**.

**Table 2.2: Details on Total Population**

Name/Particulars	Total Population	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Tripura	36,73,917	27,12,464	9,61,453	73.83	26.17
West Tripura*	17,25,739	10,48,101	6,77,638	60.73	39.27
South Tripura	8,76,001	7,52,970	1,23,031	85.96	14.04

Source: Census of India, 2011

*\*Since Khowai and Sepahijala districts were derived from West Tripura district in 2012, the census data of these two districts were merged with West Tripura district as per the 2011 census. Therefore the demographic data given here for West Tripura district as per 2011 census would be considered as the combined demographic data of the three districts viz. West Tripura, Khowai and Sepahijala.*

### 2.2.8.2 Male and Female Population

37. Out of total population 36,73,917 of the State, male population constitutes 18,74,376 (51.02%) and female population is 17,99,541 (48.98%). Total population in West Tripura district stands at 17,25,739 of which male population stands at 8,79,428 (50.96%) and female population stands at 8,46,311 (49.04%) with sex ratio 962 which is higher than State's average of 960. The total population of South Tripura is 8,76,001 which covers 4,47,544 male population and 4,28,457 female population with sex ratio of 957. Details are given in **Table 2.3**.

**Table 2.3: Details on Male/ Female Population**

Name /Particulars	Total Population	Total Male	Total Female	Percentage (Male)	Percentage (Female)	Sex Ratio
Tripura	36,73,917	18,74,376	17,99,541	51.02	48.98	960
West Tripura	17,25,739	8,79,428	8,46,311	50.96	49.04	962
South Tripura	8,76,001	4,47,544	4,28,457	51.09	48.91	957

Source: Census of India, 2011

### 2.2.8.3 Scheduled Caste (SC) and Scheduled Tribe (ST) Population

38. As per census 2011, the Scheduled Caste (SC) & Scheduled Tribe (ST) population of the State stands at 6,54,918 (17.83%) and 11,66,813 (31.76%) respectively. The West Tripura district has a total SC population of 3,38,094 (19.59%) and ST population of 4,31,944 (25.03%). The SC and ST population of South Tripura district stand at 1,40,168 (16.00%) and 3,44,835 (39.36%). Details are given in **Table 2.4**.

**Table 2.4: Details on Percentage SC/ST**

Name/ Particulars	Total Population	Total SC Population	Percentage of SC Population	Total ST Population	Percentage of ST Population
Tripura	36,73,917	6,54,918	17.83	11,66,813	31.76
West Tripura	17,25,739	3,38,094	19.59	4,31,944	25.03
South Tripura	8,76,001	1,40,168	16.00	3,44,835	39.36

Source: Census of India, 2011

### 2.2.8.4 Literacy

39. The literacy rate of West Tripura district stands at 78.89 % which is higher than State's average (76.34%). The South Tripura district has 73.84% of literacy rate. However, the female literacy rate of West Tripura and South Tripura districts are 46.89% and 45.72% respectively. Details are given in **Table 2.5**.

**Table 2.5 : Literate and Illiterate Population**

Name/Particulars	Total Population	Total Literate	Percentage of Literate	Percentage (Male)	Percentage (Female)
Tripura	36,73,917	28,04,783	76.34	53.53	46.47
West Tripura	17,25,739	13,61,354	78.89	53.11	46.89
South Tripura	8,76,001	6,46,810	73.84	54.28	45.72

Source: Census of India, 2011

### 2.3.8.5. Total Workers (Male and Female)

40. Total population into work in Tripura stands at 14,69,521 of which total Male (work) population stands at 10,45,326 (71.13%) and total female (Work) population stands at 4,24,195 (28.87%). The West Tripura district has a total work population of 6,98,178 of which total Male (work) population stands at 5,00,406 (71.67%) and total female (Work) population stands at 1,97,772 (28.33%). Whereas in South Tripura district, the total population at work stands at 3,66,845 of which Male (work) population stands at 2,53,229 (69.03%) and total female (Work) population stands at 1,13,616 (30.97%). Details are given in **Table 2.6**.

**Table 2.6: Details on Workers**

Name/Particulars	Total Population (Work)	Total Male (Work)	Total Female (Work)	Percentage (Male)	Percentage (Female)
Tripura	14,69,521	10,45,326	4,24,195	71.13	28.87
West Tripura	6,98,178	5,00,406	1,97,772	71.67	28.33
South Tripura	3,66,845	2,53,229	1,13,616	69.03	30.97

Source: Census of India, 2011

### 2.3.8.6 Households

41. Total Households in Tripura stands at 19,296 of which 14,424 (74.75%) households belong to rural area and 4,872 (25.25%) households belong to urban area. West Tripura district has a total of 11,921 households of which 7,964 (66.81%) households belong to rural area and 3,957 (33.19%) households belong to urban area. The total households in South Tripura district stands at 2,947 of which 2558 (86.80%) belong to rural area and 389 (13.20%) households belong to urban area. Details are given in **Table 2.7**.

**Table 2.7: Details on Households**

Name/Particulars	Total Households	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Tripura	19,296	14,424	4,872	74.75	25.25
West Tripura	11,921	7,964	3,957	66.81	33.19
South Tripura	2,947	2,558	389	86.80	13.20

Source: Census of India, 2011

### III. LEGAL & REGULATORY FRAMEWORK

#### 3.1. Overview

42. In India, compensation for land acquisition (LA) and rehabilitation for project affected persons/families is directed by the National law i.e. “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (hereafter RFCTLARR, 2013)”, effective from 1<sup>st</sup> January 2014. For transmission/distribution line project, land for tower/pole and right of way is not acquired<sup>5</sup> and ownership of land remains with the owner and is allowed to continue cultivation after construction. However, as per existing laws<sup>6</sup> compensation for all damages are paid to the individual land owner. The relevant national laws applicable for transmission/distribution project are (i) The Electricity Act, 2003 and (ii) The Indian Telegraph Act, 1885 and (iii) MoP guidelines on 15<sup>th</sup> October, 2015 for payment of compensation toward damages in regard to RoW. The compensation principles adopted for this project shall comply with applicable laws and regulations of the Government of India/ State Govt., World Bank’s Safeguard Policies and TSECL’s ESPPF.

#### 3.2. Statutory Requirements

43. Transmission lines are constructed under the ambit of The Electricity Act, 2003. The provisions stipulated in section 67-68 of the Electricity Act, 2003 read with section 10 & 16 of the Indian Telegraph Act, 1885 governs the compensation as TSECL has been vested with the powers of Telegraph Authority vide Deptt. of Power, Govt. of Tripura notification dated 20<sup>th</sup> June 2014, under Section - 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 under section 10 (b), TSECL is not authorized to acquire any land hence land under tower is not acquired. However, compensation for all damages are paid to the individual land owner as per the provision of Section-10 (d) of Indian Telegraph Act, 1885.

44. The provisions in the Electricity Act, 2003 and Indian Telegraph Act, 1885 regarding compensation for laying of transmission lines are as follows:

##### 3.2.1. The Electricity Act, 2003, Part-VIII, Section 67 & 68

###### Quote:

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<sup>6</sup> As per the present provision in the Electricity Act, 2003 read with relevant provisions of Indian Telegraph Act, 1885 all the damages (without acquisition of subject land) accrued to person while placing the tower and line are to be compensated

**Section 67 (3-5):**

- (3) A licensee shall, in exercise of any of the powers conferred by or under this section and the rules made thereunder, cause as little damage, detriment and inconvenience as may be, and shall make full compensation for any damage, detriment or inconvenience caused by him or by any one employed by him.
- (4) Where any difference or dispute [including amount of compensation under sub-section (3)] arises under this section, the matter shall be determined by the Appropriate Commission.
- (5) The Appropriate Commission, while determining any difference or dispute arising under this section in addition to any compensation under sub-section (3), may impose a penalty not exceeding the amount of compensation payable under that sub-section.

**Section 68 (5 & 6):**

- (5) Where any **tree standing or lying near an overhead line or where any structure or other object which has been placed or has fallen near an overhead line** subsequent to the placing of such line, interrupts or interferes with, or is likely to interrupt or interfere with, the conveyance or transmission of electricity or to interrupt or interfere with, the conveyance or transmission of electricity or the accessibility of any works, an Executive Magistrate or authority specified by the Appropriate Government may, on the application of the licensee, cause the tree, structure or object to be removed or otherwise dealt with as he or it thinks fit.
- (6) When disposing of an application under sub-section (5), an Executive Magistrate or authority specified under that sub-section shall, in the case of any tree in existence before the placing of the overhead line, **award to the person interested in the tree such compensation as he thinks reasonable, and such person may recover the same from the licensee.**

*Explanation. - For purposes of this section, the expression "tree" shall be deemed to include any shrub, hedge, jungle growth or other plant.*

**Unquote.**

**3.2.2. The Indian Telegraph Act, 1885, Part-III, Section 10 :**

**Quote:**

**Section 10** – *The telegraph authority may, from time to time, place and maintain a telegraph line under, over, along, or across, and posts in or upon any immovable property, Provided that*

- a) *the telegraph authority shall not exercise the powers conferred by this section except for the purposes of a telegraph established or maintained by the [Central Government], or to be so established or maintained;*
- b) ***the [Central Government] shall not acquire any right other than that of user only in the property under, over, along, across in or upon which the telegraph authority places any telegraph line or post; and***
- c) *except as hereinafter provided, the telegraph authority shall not exercise those powers in respect of any property vested in or under the control or management of any local authority, without the permission of that authority; and*
- d) ***in the exercise of the powers conferred by this section, the telegraph authority shall do as little damage as possible, and, when it has exercised those powers in respect of any property other than that referred to in clause (c), shall pay full compensation to all persons interested for any damage sustained by them by reason of the exercise of those powers.***

**Unquote.**

**Section 16 of the Indian Telegraph Act, 1885 which stipulates as under:**

**16. Exercise of powers conferred by section 10, and disputes as to compensation, in case of property other than that of a local authority:**

- (1) *If the exercise of the powers mentioned in Section 10 in respect of property referred to in clause (d) of that section is resisted or obstructed, the District Magistrate may, in his discretion, order that the telegraph authority shall be permitted to exercise them.*
- (2) *If, after the making of an order under sub section (1), any person resists the exercise of those powers, or, having control over the property, does not give all facilities for this being exercised, he shall be deemed to have committed an offence under section 188 of the Indian Penal Code (45 of 1860).*

### **3.2.3. MoP guidelines dated 15th October, 2015 for payment of compensation toward damages in regard to RoW**

45. Ministry of Power (MoP) vide its order No. 3/7/2015-Trans dated 15<sup>th</sup> April'15 constituted a Committee comprising of representatives of various State Govt., MoP, Central Electricity Authority (CEA) & POWERGRID under the chairmanship of Special Secretary, MoP to analyze the issues relating to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this account. Based on recommendation of the

Committee, Ministry of Power, Govt. of India vide its notification dated 15<sup>th</sup> Oct'15 has issued guidelines for payment of compensation for damages in regard to RoW (**Annexure-2**). As per the said guidelines, followings compensation shall be paid to all affected farmers/land owners as per norms in addition to normal tree and crop damage compensation

- i) **Tower base:** Compensation @ 85% of land value as determined by District Magistrate or any other competent authority based on Circle rate/ Guideline value/ Stamp Act rates for tower base area (between four legs).
- ii) **Line corridor:** Compensation @ maximum 15% of land value towards diminution of land value in the width of RoW corridor as determined by District Magistrate or any other competent authority based on Circle rate/ Guideline value/ Stamp Act.

46. Ministry of Power (MoP) has also written to all the States for taking suitable decisions regarding adoption of these guidelines considering that acquisition of land is a State subject. However, till date Govt. of Tripura has not adopted the said guidelines for implementation.

### 3.3. World Bank's Environmental & Social Safeguard Policies

47. The objective of Bank's policies is to prevent and mitigate undue harm to people and their environment in the development process. Safeguard policies provide a platform for the participation of stakeholders in project design, and act as an important instrument for building ownership among local populations. Operational Policies (OP) are the statement of policy objectives and operational principles including the roles and obligations of the Borrower and the Bank, whereas Bank Procedures (BP) is the mandatory procedures to be followed by the Borrower and the Bank. Apart from these, World Bank Group Environmental, Health, and Safety (EHS) General Guidelines and EHS Guidelines for Electric Power Transmission and Distribution are also relevant for environmental protection and monitoring of transmission projects. The WB's relevant social safeguard policies and their objective are given in **Table – 3.1**.

**Table 3.1: World Bank's Operational Policies for Social Safeguard**

<b>Operational Policy (OP)</b>	<b>Policy Objectives</b>
OP 4.11 - Physical Cultural Resources (PCR)	To preserve PCR and in avoiding their destruction or damage. PCR includes resources of archeological, paleontological, historical, architectural, and religious (including graveyards and burial sites), aesthetic, or other cultural significance.

OP 4.12 – Involuntary Resettlement	To avoid or minimize involuntary resettlement and, where this is not feasible, assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.
OP 4.10 – Indigenous Peoples	To ensure that the Indigenous Peoples receive social and economic benefits those are culturally appropriate and gender and inter generationally inclusive. The project shall ascertain broad community support for the project based on social assessment and free prior and informed consultation with the affected Tribal community, if any.

### 3.4. TSECL's ESPPF

48. To address the environmental and social issues related to its power transmission and distribution projects under NERPSIP, TSECL has adopted an Environmental and Social Policy & Procedures Framework (ESPPF) in 2015 based on the principles of avoidance, minimization, and mitigation. The ESPPF had been developed by POWERGRID on behalf of the State Utility based on ESPP of POWERGRID who has proven credentials in management of environmental and social issues of large number of power transmission projects both within and outside the country after a comprehensive review of Utility's existing policies/provisions and consultation with stakeholders.

49. ESPPF's outlines Utility's approach and commitment in dealing with the environmental and social issues relating to its transmission projects, lays down the management procedures and protocols for the purpose that includes the framework for identification, assessment, and management of environmental and social concerns at both organizational and project levels.

50. Specifically on social, the following criteria and approach are considered in the ESPPF:

- (i) Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance.
- (ii) Take due care of Project Affected Persons (PAP).
- (iii) Involve affected people from inception stage to operation and maintenance.
- (iv) Consult affected people in issues of RoWs, land acquisition or loss of livelihood.
- (v) Encourage consultation with communities in identifying environmental and social implications of projects.
- (vi) Guarantee entitlements and compensation to affected people as per entitlement matrix.



- (vii) Share information with local communities about environmental and social implications.
- (viii) Always maintain highest standards of health and safety and adequately compensate affected persons in case of any eventuality.

### **3.5. Basic Principles for the Project**

51. The basic principles adopted for the Project are:

- (i) Avoid negative impacts of land acquisition and involuntary resettlement on persons affected by the Project to the extent possible.
- (ii) Where negative impacts cannot be avoided, assist affected persons (AP), in improving or at least regaining their standard of living and income.
- (iii) Carry out meaningful consultations with affected persons and inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation and monitoring of the Project
- (iv) Disclose all information related to, and ensure AP participation in resettlement planning and implementation.
- (v) Provide compensation for acquired assets at replacement/market value in accordance with the RP/CPTD.
- (vi) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- (vii) Provide resettlement assistance and income restoration to APs.
- (viii) Provide for APs not present during enumeration. However, anyone moving into the project area after will not be entitled to assistance.
- (ix) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- (x) Provide compensation and resettlement assistance prior to taking possession of the acquired lands and properties.
- (xi) Establish grievance redress mechanisms to ensure speedy resolution of disputes.
- (xii) Ensure adequate budgetary support to cover implementation costs for CPTD.
- (xiii) Monitoring of the implementation of CPTD.

52. Additionally, the issues related to the Right of Way (RoW) for the transmission/distribution lines will be dealt with proper care especially for the temporary loss. For the loss of crops and trees due to construction of overhead lines, cash compensation payable by cheque/through online transfer will be provided during construction works. Further, cash compensation (by cheque/ online

transfer) to the APs for the temporary loss of crop and loss of trees if occurred, during the time of maintenance and repair.

## IV. PROJECT IMPACTS

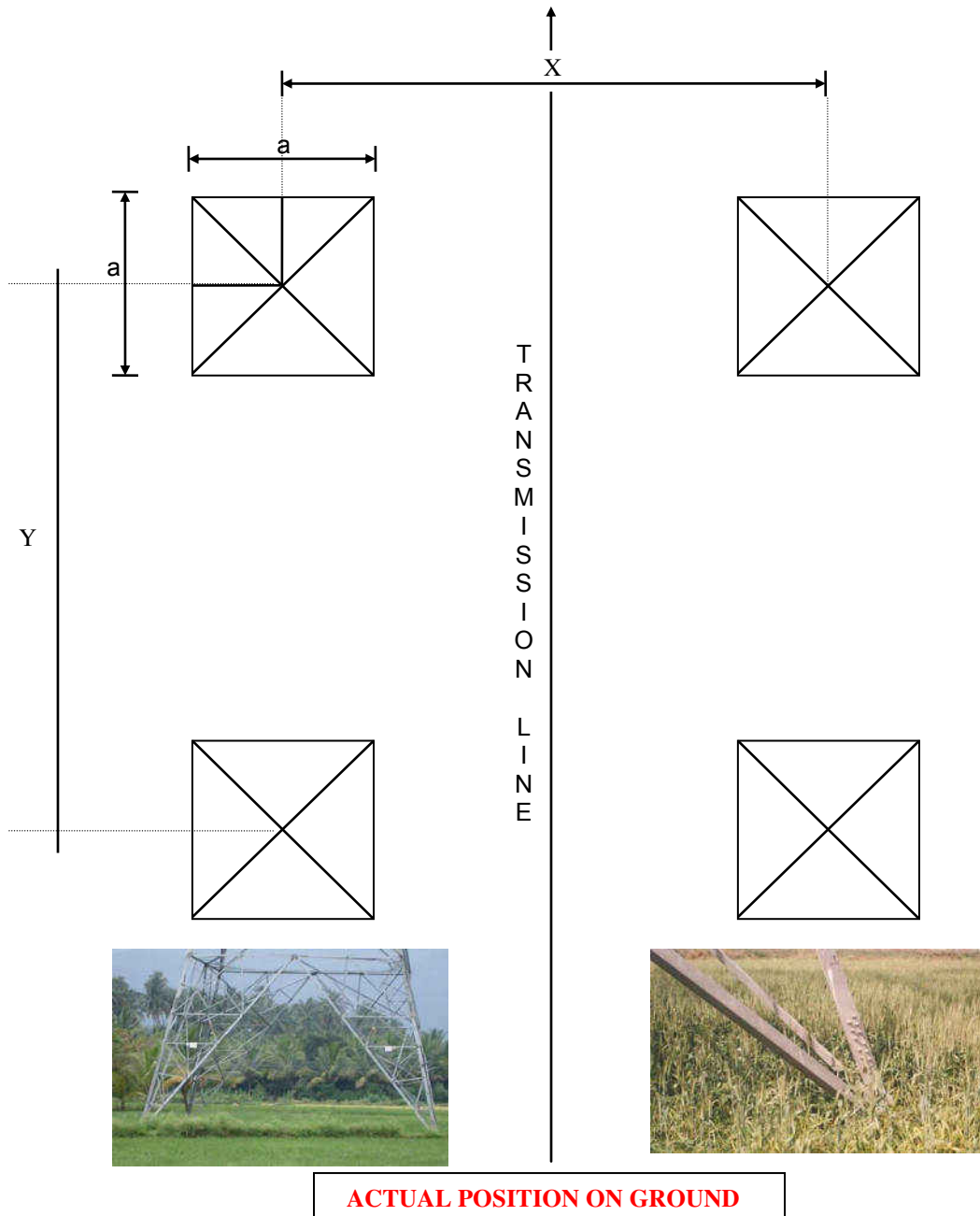
### 4.1. General

53. The project does not require any private land acquisition for construction of transmission/distribution lines. Therefore, no physical displacement is foreseen in the project. However, there are some social impacts due to construction of lines/placing of towers & poles which are temporary in nature in terms of loss of standing crops/trees/structures in the RoW. Preliminary investigation/survey has been carried out for transmission/distribution line to estimate/arrive at the selection of one best feasible alignment route out of at least 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. The details of tower/pole schedule depicting location & its coordinate including major crossings along with maps of proposed route alignment is placed as **Annexure-3**. Therefore, the CPTD remains as draft, as actual temporary impacts shall be known only during implementation which will be based on the detailed design and final/check survey once the construction contractor is mobilized for implementation. The details of land use have been gathered to have an idea about the temporary damages that might occur during construction of the transmission and distribution lines. The corridor of width (Right of Way) required for 132 KV D/C transmission line is 27 meter whereas, the 33 kV distribution lines it is considered as 15 meter.

54. Soil & Surface Geology: In plain areas impact on soil & geology will be almost negligible as the excavated pit material is stacked properly and back filled as well as used for resurfacing the area. On hill slopes where soil is disturbed will be prone to erosion is suitably protected by revetment, breast walls, and proper drainage. Besides extensive leg /chimney extension shall be used to avoid benching or cutting of slopes to minimize the impact on slope stability.

55. The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction is done on a small square area with side length ranging from 0.20 to 0.30 meter depending on the types of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 132 kV D/c transmission tower ranges from 0.16-0.36 sq.m. of land. Thus, the actual impact is restricted to 4 legs of the tower and agriculture can continue as clearly depicted in the Figure-4.1. In case of 33 kV distribution line area that becomes unavailable because of the erection of pole is insignificant as approx. 1 sq. ft. land area is occupied for one pole (refer Figure. 4.2 depicting actual base area impact). Due diligence confirms that land is either agricultural or barren, and

**Figure- 4.1: Typical Plan of Transmission Line Tower Footing**

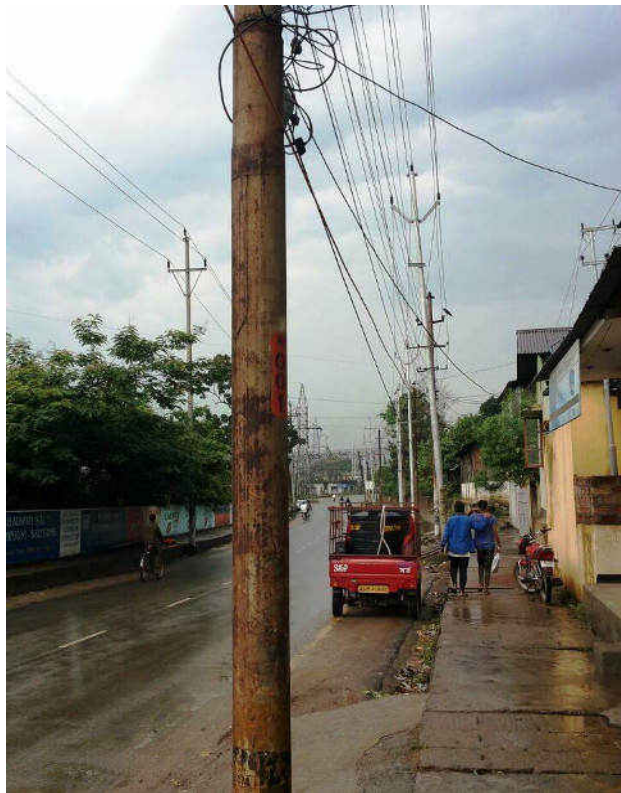
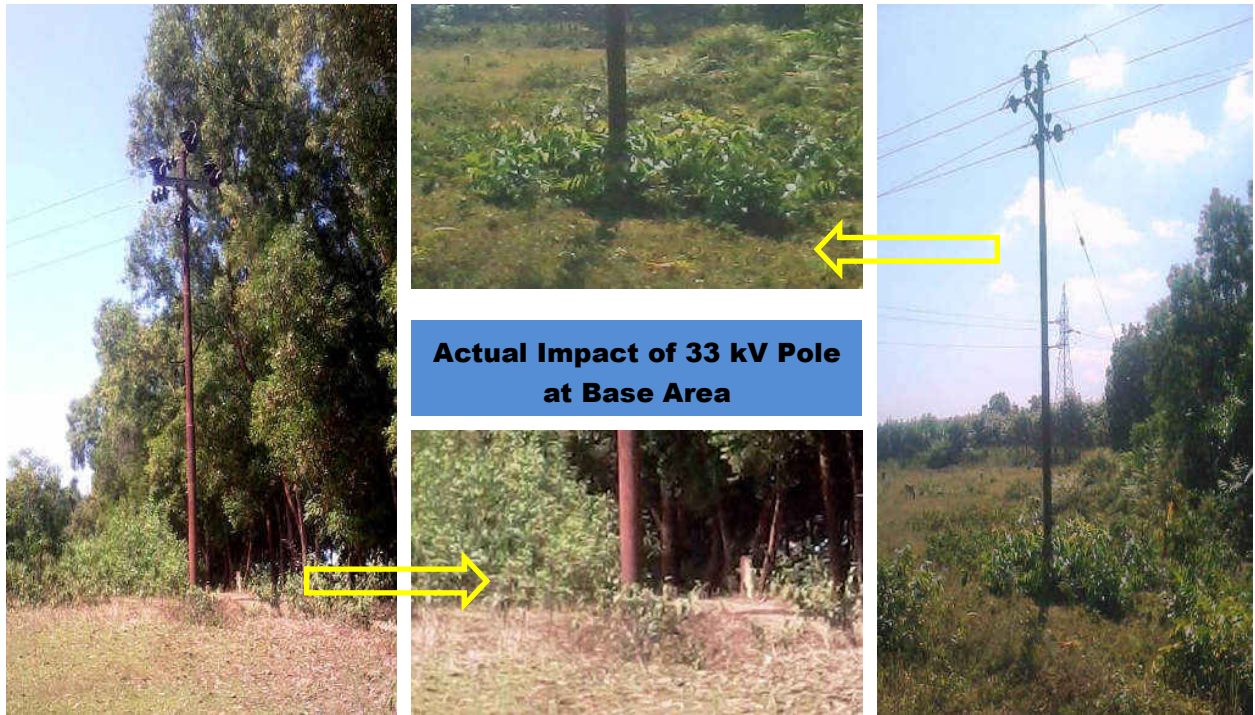


**INDICATIVE MEASURES**

X & Y = 5-10 METERS

a = 200- 300 mm

**Figure- 4.2: 33 KV lines (Single & H pole) depicting base area impact**



**33 kV line inside city area of Assam**



**33 kV (H Pole) line inside substation**

current land use is not altered and resumed after construction. As per present practices, full compensation (100%) towards land value in tower base areas as decided by the district authority is paid towards damages to the affected persons/land owners. Once Govt. of Tripura adopt the MoP guidelines dated 15th Oct,'15 , compensation toward damages in regard to RoW shall be paid as per the norms in addition to normal crop and tree damages .

56. Crops: Construction of line in crop season is avoided as far as possible. In case when installation of towers/poles impacts on agricultural activity, detailed assessment/survey is conducted looking at existing crops, general crop patterns, seasonal particulars, nature and extent of yield. This data is compiled and analysed to study the extent and nature of impact. The compensation is in terms of yield/hectare and rate/quantity for prevailing crops in the area. Based on this, total compensation is calculated in consultation with revenue authorities. Compensation is paid to the owners and their acknowledgement obtained.

57. Trees: Construction of line in fruit bearing season is avoided as far as possible. Tree compensation is calculated on the basis of tree enumeration, tree species and an estimate of the yield. In case of fruit bearing trees compensation will be calculated on the basis of 8 years yield (assessed by revenue/horticulture department). Market rates of compensation are assessed by the relevant government authorities. The total estimate is submitted for approval of the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ Sarpanch and respective acknowledgements are obtained.

58. Other Damages: Like bunds, water bodies, fish ponds, approach paths, drainage and irrigation canals etc. are at best avoided. However, if damaged the Revenue Department assess the cost of damage as per State Govt. norms. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village headman/ Sarpanch and respective acknowledgements are obtained and POWERGRID/ TSECL pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.

#### **4.2. Impact due to construction of New Substation and Bay extension**

59. The project components consist of establishment of 3 nos. of new 132/33kV substation & 15 nos. new 33/11kV substations as well as extension work of 132/33 kV Rokhia, Dhalabi & Jirania located in West Tripura, South Tripura, Khowai & Sepahijala districts of Tripura. Land for

all new substations are already in possession with TSECL. Further, extension of the proposed substations will be done within the existing substations campus and the land belongs to TSECL. Since no fresh land acquisition is involved, R&R will not be an issue in the instant project. The details are provided in **Table 4.1**.

**Table 4.1: Details of Substation**

Name of substation	Permanent Impact on Land Use	Temporary Impact on loss of crops	Impact on Loss of Trees	Remarks
132/33 kV new substation at Rabindranagar	No	Nil	Nil	TSECL land
132/33 kV new substation at Gokulnagar	No	Nil	05	
132/33 kV new substation at Mohanpur	No	Nil	Nil	
Extension of 132/33 kV substation at Rokhia	No	Nil	Nil	
Extension of 132/33 kV substation at Dhalabi	No	Nil	Nil	
Extension of 132/33 kV substation at Jirania	No	Nil	Nil	
33/11 kV new substation at Khowai	No	Nil	Nil	
33/11 kV new substation at Simna	No	Nil	Nil	
33/11 kV new substation at Barkathal	No	Nil	Nil	
33/11 kV new substation at Bamutia	No	Nil	01	
33/11 kV new substation at Lembucherra	No	Nil	Nil	
33/11 kV new substation at Champaknagar	No	Nil	Nil	
33/11 kV new substation at Ranir Bazar	No	Nil	Nil	
33/11kV new substation at ADC H. Quarter	No	Nil	Nil	
33/11 kV new substation at Munkiakami	No	Nil	Nil	
33/11 kV new substation at Sekerkote	No	Nil	Nil	
33/11 kV new substation at Golaghati	No	Nil	Nil	
33/11 kV new substation at Durganagar	No	Nil	Nil	
33/11 kV new substation at Nidya,	No	Nil	Nil	
33/11 kV new substation at Nalchar	No	Nil	Nil	
33/11 kV new substation at Gabardi.	No	Nil	Nil	

#### 4.3. Temporary Impacts Caused due to Transmission/Distribution Line (Right of Way)

##### 4.3.1. Type and Use of Land within Corridor Right of Way

60. The line corridor will pass through mixed land uses which are generally agricultural land, private plantation/forest land, govt. land etc. The calculations are based on detailed survey/ investigation carried out along the route of transmission/distribution lines and considering the total line length of the line and its right of way. The total line length is 302.958 kilometres (km) which will impact an estimated of 2021.04acres<sup>7</sup> of land. These include 30.368 km of line passing through agricultural land (202.604 acres of agricultural land), 22.766 km of private plantation (151.786

<sup>7</sup> Total Line Length (kilometers) X Right of Way (meters)X1000/4,047= Area in Acre

acres of private plantation), 36.192 km of forest land (241.458 acre of forest land) and 213.595 km of government/barren land (1425.25 acres of government land). A brief description about the type and use of land in the corridor is given in **Table 4.2**.

**Table 4.2: Type and Use of Land within Corridor of RoW (in Km/Hectare)**

Sl. No.	Name of the Line	RoW (in mtr)	Agricultural land	Private Plantation	Forest	Govt/ Barren	Total
<b>A. Transmission Line</b>							
1	Rokhia-Rabindranagar 132 kV D/c	27	8.750 km (58.377 acre)	6.391 km (42.638 acre)	6.890 km (45.967 acre)	Nil	22.031 km (146.982 acre)
2	Rabindranagar-Belonia 132 kVD/c		19.977 km (133.275 acre)	13.872 km (92.541 acre)	29.302 km (195.40 acre)	Nil	63.151 km (421.340 acre)
3	LILO of 132kV Rokhia-Surjamaninagar line at Gokulnagar		0.654 km (4.363 acre)	2.266 km (15.118 acre)	Nil	Nil	2.920 km (19.481 acre)
4	LILO of 132kV Agartala-Dhalabil line at Mohanpur		0.987 km (6.585 acre)	0.237 km (1.581 acre)	Nil	Nil	1.24 km (8.270 acre)
<b>B. Distribution Line</b>							
5	Khowai-Dhalabil 33 kV	15	Nil	Nil	Nil	6.643 km (24.62 acre)	6.643 km (24.62 acre)
6	Khowai-Ampura 33 kV		Nil	Nil	Nil	13.192 km (48.897 acre)	13.192 km (48.897 acre)
7	Simna-Hezamara 33 kV		Nil	Nil	Nil	11.979 km (44.40 acre)	11.979 km (44.40 acre)
8	Simna - Tapping of Mohanpur – Hezamara 33 kV		Nil	Nil	Nil	14.523 km (53.83 acre)	14.523 km (53.83 acre)
9	Barkathal - Hezamara 33 kV		Nil	Nil	Nil	11.67 km (43.26 acre)	11.67 km (43.26 acre)
10	Barkathal - Mohanpur 33 kV		Nil	Nil	Nil	9.442 km (34.997 acre)	9.442 km (34.997 acre)
11	Bamutia - Durjoynagar 33 kV		Nil	Nil	Nil	14.00 km (51.89 acre)	14.00 km (51.89 acre)
12	Bamutia - Lembucherra 33 kV		Nil	Nil	Nil	8.121 km (30.10 acre)	8.121 km (30.10 acre)
13	2 x 33 kV line from Lembucherra - LILO of 33kV Agartala-Mohanpur		Nil	Nil	Nil	1.051 km (3.896 acre)	1.051 km (3.896 acre)
14	2 x 33 kV line from Champaknagar-Jirania		Nil	Nil	Nil	5.957 km (22.08 acre)	5.957 km (22.08 acre)
15	2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur-Jirania Line		Nil	Nil	Nil	0.809 km (2.999 acre)	0.809 km (2.999 acre)



16	ADC Head Qtr. - Jirania 33 kV		Nil	Nil	Nil	3.546 km (13.144 acre)	3.546 km (13.144 acre)
17	ADC Head Qtr. – Champaknagar 33 kV		Nil	Nil	Nil	10.756 km (39.87 acre)	10.756 km (39.87 acre)
18	33 kV Munkiakami - LILO of 33kV Ambasa- Teliamura		Nil	Nil	Nil	6.631 km (24.58 acre)	6.631 km (24.58 acre)
19	2 x 33 kV line from Sekerkote - LILO of 33kV Badharghat-Jangalia Line		Nil	Nil	Nil	10 km (37.06 acre)	10 km (37.06 acre)
20	Golaghati-Gakulnagar 33 kV		Nil	Nil	Nil	13.808 km (51.18 acre)	13.808 km (51.18 acre)
21	Golaghati - Takarjala 33 kV		Nil	Nil	Nil	10.464 km (38.79 acre)	10.464 km (38.79 acre)
22	Durganagar - Gakulnagar 33 kV		Nil	Nil	Nil	7.005 km (25.97 acre)	7.005 km (25.97 acre)
23	Durganagar - Madhupur 33 kV		Nil	Nil	Nil	10.703 km (39.67 acre)	10.703 km (39.67 acre)
24	Nidya - Kathalia 33 kV		Nil	Nil	Nil	9.364 km (34.71 acre)	9.364 km (34.71 acre)
25	Nidya – Rajnagar 33 kV		Nil	Nil	Nil	17.745 km (65.77 acre)	17.745 km (65.77 acre)
26	Nalchar - Melaghar 33 kV		Nil	Nil	Nil	6.742 km (24.99 acre)	6.742 km (24.99 acre)
27	Nalchar-Bishramganj 33 kV		Nil	Nil	Nil	8.7 km (32.25 acre)	8.7 km (32.25 acre)
28	33 kV Gabardi - LILO of 33 kV Surjamani nagar-Takarjala Line		Nil	Nil	Nil	0.807 km (2.99 acre)	0.807 km (2.99 acre)
<b>Total</b>			<b>30.368 km (202.604 acre)</b>	<b>22.776 km (151.786 acre)</b>	<b>36.192 km (241.458 acre)</b>	<b>213.595 km (1425.25 acre)</b>	<b>302.958 km (2021.04 acre)</b>

Source: Detailed Survey

#### 4.3.2 Total loss of crop area (RoW Corridor & Tower/Pole)

61. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. The damages are not done in complete RoW of line (27 m for 132 kV D/c) but mostly restricted to tip to tip of the conductor and tower base area where average affected width/corridor would be limited to 20 meter (maximum). In 33 kV distribution lines, damages are minimal (mostly near bi-pole//quad-pole structure) however, 10 meter corridor is considered for accessing the damages. Moreover, all efforts are made to reduce the damages to crops and to minimize the impacts whatsoever. One of the reasons is that schedules of

construction activities are undertaken in lean season or post-harvest periods. As the assets of any sorts will not be acquired but during construction, only temporary damages will occur for which the compensation shall be paid to affected persons as per entitlement matrix.

62. Based on the above estimation, the total land considered for crop compensation for transmission/distribution line corridor and tower/pole foundation for the entire subproject covered under the scope of above CPTD is 262.585 acres. Details of estimated impacted area for crop damages are given in **Table 4.3**.

**Table 4.3: Estimation on Loss of Land for Crop Damage due to Overhead Lines**

Name of the line	Width Considered for Estimation of Loss of Crops & other impacts (Meter)	Total Agricultural Land (km)	Total Private Plantation (km)	Total Line Length Considered for Crop Compensation (km)	Total Land Area considered for Crop Compensation (Acre)
Rokhila - Rabindranagar 132 kV D/c	20	8.750	6.391	15.141	74.826
Rabindranagar-Belonia 132 kV D/c		19.977	13.872	33.849	167.279
LILO of 132kV Rokhia-Surjamaninagar line at Gokulnagar		0.654	2.266	2.92	14.430
LILO of 132kV Agartala-Dhalabil line at Mohanpur		0.987	0.237	1.224	6.049
Khowai-Dhalabil 33 kV	10	Nil	Nil	Nil	Nil
Khowai-Ampura 33 kV		Nil	Nil	Nil	Nil
Simna-Hezamara 33 kV		Nil	Nil	Nil	Nil
Simna - Tapping of Mohanpur-Hezamara 33 kV		Nil	Nil	Nil	Nil
Barkathal - Hezamara 33 kV		Nil	Nil	Nil	Nil
Barkathal - Mohanpur 33 kV		Nil	Nil	Nil	Nil
Bamutia-Durjoynagar 33 kV		Nil	Nil	Nil	Nil
Bamutia-Lembucherra 33 kV		Nil	Nil	Nil	Nil
Lembucherra - LILO of 33kV Agartala-Mohanpur Line		Nil	Nil	Nil	Nil
2 x 33 kV line from Champaknagar- Jirania		Nil	Nil	Nil	Nil
2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania		Nil	Nil	Nil	Nil
ADC Head Qtr. - Jirania 33 kV		Nil	Nil	Nil	Nil
ADC Head Qtr. – Champaknagar 33 kV		Nil	Nil	Nil	Nil
Sekerkote - LILO of 33kV		Nil	Nil	Nil	Nil

Badharghat- Jangalia Line					
Golaghati- Gakulnagar 33 kV		Nil	Nil	Nil	Nil
Golaghati - Takarjala 33 kV		Nil	Nil	Nil	Nil
Durganagar –Gakulnagar 33 kV		Nil	Nil	Nil	Nil
Durganagar - Madhupur 33 kV		Nil	Nil	Nil	Nil
Nidya - Kathalia 33 kV		Nil	Nil	Nil	Nil
Nidya – Rajnagar 33 kV		Nil	Nil	Nil	Nil
Nalchar - Melaghar 33 kV		Nil	Nil	Nil	Nil
Nalchar- Bishramganj 33 kV		Nil	Nil	Nil	Nil
33 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala Line		Nil	Nil	Nil	Nil
<b>Total</b>		<b>30.368</b>	<b>22.766</b>	<b>53.134</b>	<b>262.585</b>

Source: Detailed Survey

#### 4.3.3 Actual loss of land for Tower Base & Pole

63. As already explained, the impact of transmission line is restricted to 4 legs of the tower and agriculture can continue after construction activity is over. The average land area will be unavailable for erection of one 132 kV T/L tower and one pole for 33 kV D/L is approx. 0.25 sq.m & 0.092 sq.m. respectively. Based on above, total land loss for construction of 89.326 km of 132 kV transmission line and 213.595 km of 33 kV distribution line proposed under the present scheme is estimated to be 0.204 acre. However, compensation toward loss of land shall be provided to APs which is part of RoW compensation. Details of land loss for tower base & pole is given in **Table-4.4.**

**Table 4.4: Estimation of Actual Loss of Land for Tower Base & Pole**

Name of the line	Line length (km)	Total Tower/Pole (Nos.)	Land loss per tower/ pole base (sq.m.)	Total land loss area for tower & pole base (sq.m.)
Rokhia-Rabindranagar 132 kV D/c	22.031	88	0.25	22
Rabindranagar-Belonia 132 kV D/c	63.151	108	0.25	27
LILO of 132kV Rokhia-Surjamaninagar line at Gokulnagar	2.92	14	0.25	3.5
LILO of 132kV Agartala-Dhalabil line at Mohanpur	1.224	06	0.25	1.5
Khowai–Dhalabil 33 kV	6.643	265	0.092	24.38

Khowai–Ampura 33 kV	13.192	519	0.092	47.748
Simna-Hezamara 33 kV	11.979	422	0.092	38.824
Simna - Tapping of Mohanpur – Hezamara 33 kV	14.523	479	0.092	44.068
Barkathal - Hezamara 33 kV	11.67	550	0.092	50.6
Barkathal - Mohanpur 33 kV	9.442	366	0.092	33.672
Bamutia - Durjoynagar 33 kV	14.00	458	0.092	42.136
Bamutia - Lembucherra 33 kV	8.121	339	0.092	31.188
2 x 33 kV line from Lembucherra - LILO of 33kV Agartala-Mohanpur	1.051	56	0.092	5.152
2 x 33 kV line from Champaknagar-Jirania	5.957	221	0.092	20.332
2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania Line	0.809	24	0.092	2.208
ADC Head Qtr. - Jirania 33 kV	3.546	151	0.092	13.892
ADC Head Qtr. –Champaknagar 33 kV	10.756	400	0.092	36.8
33 kV Munkiakami - LILO of 33kV Ambasa- Teliamura Line	6.631	300	0.092	27.6
2 x 33 kV line from Sekerkote - LILO of 33kV Badharghat- Jangalia Line	10.00	385	0.092	35.42
Golaghati- Gakulnagar 33 kV	13.808	452	0.092	41.584
Golaghati - Takarjala 33 kV	10.464	470	0.092	43.24
Durganagar - Gakulnagar 33 kV	7.005	290	0.092	26.68
Durganagar - Madhupur 33 kV	10.703	420	0.092	38.64
Nidya - Kathalia 33 kV	9.364	394	0.092	36.248
Nidya – Rajnagar 33 kV	17.745	641	0.092	58.972
Nalchar - Melaghar 33 kV	6.742	292	0.092	26.864
Nalchar- Bishramganj 33 kV	8.7	423	0.092	38.916
33 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala Line	1.431	79	0.092	7.268
<b>Total</b>				<b>826.42 <math>\cong</math> 0.204 acre</b>

#### 4.3.4 Land area for RoW compensation as per MoP Guidelines

64. As per the MoP guidelines on RoW compensation, provisional land area to be considered for land compensation has been calculated for proposed 132 kV D/c lines. However, land compensation @ 85% land value for tower base & @ maximum 15% land value for width of RoW

corridor will be paid to land owners/farmer, if the said guideline is adopted by Govt. of Tripura for implementation. Details of calculation of land areas to be considered for such compensation are given in **Table 4.5**.

**Table 4.5 Land area for RoW Compensation**

Name of the line	Line length (km)	Nos. of Tower	Land area for Tower base per km (in acre)	Total land area for tower base (In acre)	*RoW Corridor area per km (In acre)	Total land area for RoW Corridor (In acre)	Total Land area (In acre)
Rokhila-Rabindranagar 132 kV D/c	22.031	88	0.036	0.793	6.635	146.176	146.969
Rabindranagar-Belonia 132 kV D/c	63.151	108	0.036	2.273	6.635	419.007	421.280
LILO of 132kV Rokhia-Surjamaninagar line at Gokulnagar	2.92	14	0.036	0.105	6.635	19.374	19.479
LILO of 132kV Agartala-Dhalabil line at Mohanpur	1.224	06	0.036	0.044	6.635	8.121	8.156
<b>Total</b>							<b>595.894</b>

\* Effective RoW corridor area has been considered after excluding tower base area.

#### 4.3.5. Loss of Trees

65. Total numbers of trees likely to be affected due to construction of 89.326 km of 132kV line and for 213.595 km of 33kV distribution line is approx. 46060 which are private trees and none of the trees are encountered in govt. land. Additionally, 1633 nos. private bamboo trees are likely to be affected. The major species to be affected are Bamboo (*Bambusa vulgaris*) & Betel nut (*Areca catechu*). During construction, private trees will be compensated as per the entitlement matrix. Details on number of trees for each line are given **Table 4.6**.

**Table 4.6: Loss of Trees**

Name of Line	Trees in Private Area (Numbers)	Trees in Govt. Area (Numbers)	Total Trees (Numbers)
Rokhila-Rabindranagar 132 kV D/c	10461 + 50 Bamboo	Nil	10461 + 50 Bamboo
Rabindranagar-Belonia 132 kV D/c	32749 + 1200 Bamboo	Nil	32749 + 1200 Bamboo
LILO of 132kV Rokhia-Surjamaninagar line at Gokulnagar	2682 +13 Bamboo	Nil	2682 +13 Bamboo
LILO of 132kV Agartala-Dhalabil line at Mohanpur	168 + 370 Bamboo	Nil	168 + 370 Bamboo
Khowai-Dhalabil 33 kV	Nil	Nil	Nil
Khowai-Ampura 33 kV	Nil	Nil	Nil
Simna-Hezamara 33 kV	Nil	Nil	Nil

Simna - Tapping of Mohanpur – Hezamara 33 kV	Nil	Nil	Nil
Barkathal - Hezamara 33 kV	Nil	Nil	Nil
Barkathal - Mohanpur 33 kV	Nil	Nil	Nil
Bamutia - Durjoynagar 33 kV	Nil	Nil	Nil
Bamutia - Lembucherra 33 kV	Nil	Nil	Nil
2 x 33 kV line from Lembucherra - LILO of 33kV Agartala-Mohanpur	Nil	Nil	Nil
2 x 33 kV line from Champaknagar- Jirania	Nil	Nil	Nil
2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania Line	Nil	Nil	Nil
ADC Head Qtr. - Jirania 33 kV	Nil	Nil	Nil
ADC Head Qtr. –Champaknagar 33 kV	Nil	Nil	Nil
33 kV Munkiakami - LILO of 33kV Ambasa- Teliamura Line	Nil	Nil	Nil
2 x 33 kV line from Sekerkote - LILO of 33kV Badharghat- Jangalia Line	Nil	Nil	Nil
Golaghati- Gakulnagar 33 kV	Nil	Nil	Nil
Golaghati - Takarjala 33 kV	Nil	Nil	Nil
Durganagar - Gakulnagar 33 kV	Nil	Nil	Nil
Durganagar - Madhupur 33 kV	Nil	Nil	Nil
Nidya - Kathalia 33 kV	Nil	Nil	Nil
Nidya – Rajnagar 33 kV	Nil	Nil	Nil
Nalchar - Melaghar 33 kV	Nil	Nil	Nil
Nalchar- Bishramganj 33 kV	Nil	Nil	Nil
33 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala Line	Nil	Nil	Nil
<b>Total</b>	<b>46060 + 1633 Bamboo</b>	<b>NIL</b>	<b>46060 + 1633 Bamboo</b>

Source: Detailed Survey

#### 4.3.6. Loss of Other Assets (Small Shed in Agriculture Fields)

66. It has been observed during survey that approximately 03 numbers of small structures exist along the right of way of proposed 132 kV line only. These are small storage sheds/huts which are mostly temporary structure associated with the agricultural fields. People do not use these small structures/sheds for residential purpose and they use it as storage of agricultural purpose only. During construction, these will be compensated in cash as per the entitlement matrix. Details on impacts on small structures are given in **Table 4.7**

**Table 4.7: Loss of Other Assets**

Name of Line	Total no. of storage sheds/huts
Rokhila-Rabindranagar 132 kV D/c	Nil
Rabindranagar-Belonia 132 kV D/c	03
LILO of 132kV Rokhia- Surjamaninagar line at Gokulnagar	Nil

LILO of 132kV Agartala-Dhalabil line at Mohanpur	Nil
Khowai–Dhalabil 33 kV	Nil
Khowai–Ampura 33 kV	Nil
Simna-Hezamara 33 kV	Nil
Simna - Tapping of Mohanpur – Hezamara 33 kV	Nil
Barkathal - Hezamara 33 kV	Nil
Barkathal - Mohanpur 33 kV	Nil
Bamutia - Durjoynagar 33 kV	Nil
Bamutia - Lembucherra 33 kV	Nil
2 x 33 kV line from Lembucherra - LILO of 33kV Agartala-Mohanpur	Nil
2 x 33 kV line from Champaknagar- Jirania	Nil
2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania Line	Nil
ADC Head Qtr. - Jirania 33 kV	Nil
ADC Head Qtr. –Champaknagar 33 kV	Nil
33 kV Munkiakami - LILO of 33kV Ambasa- Teliamura Line	Nil
2 x 33 kV line from Sekerkote - LILO of 33kV Badharghat-Jangalia	Nil
Golaghati- Gakulnagar 33 kV	Nil
Golaghati - Takarjala 33 kV	Nil
Durganagar - Gakulnagar 33 kV	Nil
Durganagar - Madhupur 33 kV	Nil
Nidya - Kathalia 33 kV	Nil
Nidya – Rajnagar 33 kV	Nil
Nalchar - Melaghar 33 kV	Nil
Nalchar- Bishramganj 33 kV	Nil
33 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala Line	Nil
<b>Total</b>	<b>03</b>

Source: Detailed Survey

#### 4.4. Details of Affected Persons

67. It is estimated that total number of affected persons which may be impacted temporarily will be approximately 983. Details are given in **Table 4.8**. The number of APs in the table refers to the most conservative option. State Utilities/ POWERGRID will schedule civil works in such a way to minimize impacts and substantially reduce the damages to crops and therefore the number of affected persons and Agricultural Households (AHH).

**Table 4.8: Number of Affected Persons**

Name of Line	Total APs
Rokhila-Rabindranagar 132 kV D/c	242
Rabindranagar-Belonia 132 kV D/c	695
LILO of 132kV Rokhia- Surjamaninagar line at Gokulnagar	32
LILO of 132kV Agartala-Dhalabil line at Mohanpur	14
Khowai–Dhalabil 33 kV	Nil
Khowai–Ampura 33 kV	Nil
Simna-Hezamara 33 kV	Nil
Simna - Tapping of Mohanpur – Hezamara 33 kV	Nil

Barkathal - Hezamara 33 kV	Nil
Barkathal - Mohanpur 33 kV	Nil
Bamutia - Durjoynagar 33 kV	Nil
Bamutia - Lembucherra 33 kV	Nil
2 x 33 kV line from Lembucherra - LILO of 33kV Agartala-Mohanpur Line	Nil
2 x 33 kV line from Champaknagar- Jirania	Nil
2 x 33 kV Ranir Bazar - LILO of 33kV Khayerpur- Jirania Line	Nil
ADC Head Qtr. - Jirania 33 kV	Nil
ADC Head Qtr. -Champaknagar 33 kV	Nil
33 kV Munkiakami - LILO of 33kV Ambasa- Teliamura Line	Nil
2 x 33 kV line from Sekerkote - LILO of 33kV Badharghat- Jangalia Line	Nil
Golaghati- Gakulnagar 33 kV	Nil
Golaghati - Takarjala 33 kV	Nil
Durganagar - Gakulnagar 33 kV	Nil
Durganagar - Madhupur 33 kV	Nil
Nidya - Kathalia 33 kV	Nil
Nidya – Rajnagar 33 kV	Nil
Nalchar - Melaghar 33 kV	Nil
Nalchar- Bishramganj 33 kV	Nil
33 kV Gabardi - LILO of 33 kV Surjamani nagar- Takarjala Line	Nil
<b>Total</b>	<b>983</b>

*Source: Detailed Survey*

#### 4.5 Other Damages

68. As far as possible damages to bunds, water bodies, fish ponds, approach paths, drainage and irrigation canals etc. are avoided. However, if damaged during construction activities, compensation as per practice is paid after assessment of the cost of damage by the State Govt. Revenue Department. The total estimate is submitted for approval to the competent authority. TSECL/POWERGRID pays the compensation to owners in the presence of local revenue authorities or Village head/ Sarpanch and respective acknowledgements are obtained. Any hindrances to power, telecom carrier & communication lines etc. shall also be paid as per Govt. norms.

#### 4.6 Impact on Indigenous People

69. Government of India, under Article 342 of the Constitution, considers the following characteristics to define indigenous peoples [Scheduled Tribes (ST)]:

- (i) tribes' primitive traits;
- (ii) distinctive culture;
- (iii) shyness with the public at large;
- (iv) geographical isolation; and
- (v) social and economic backwardness before notifying them as a Scheduled Tribe.



70. Essentially, indigenous people have a social and cultural identity distinct from the ‘mainstream’ society that makes them vulnerable to being overlooked or marginalized in the development processes. STs, who have no modern means of subsistence, with distinctive culture and are characterized by socio-economic backwardness, could be identified as Indigenous Peoples. Indigenous people are also characterized by cultural continuity. Constitution of India identifies schedule areas which are predominately inhabited by such people. The Sixth Schedule of the Constitution applies to a large part of the Tripura state, which is under the jurisdiction of the “Tripura Tribal Areas Autonomous District Council” (TTAADC). Out of the total geographical area of 10,491 sq. km, 7,133 sq. km (about 68%) is under the TTAADC. The Sixth Schedule areas are governed through “Autonomous District Councils” (ADC) that has wide-ranging legislative and executive powers.

71. The instant project is being implemented in West Tripura, South Tripura, Khowai & Sepahijala districts which are also part of TTAADC area. Its council and assembly are situated in Khumulwng, a town 26 km away from Agartala, the state capital. Since, the project under NERPSIP is envisaged for economic uplifting of the NE region, hence, no indigenous population will be negatively impacted in the project area. However, It may be noted that all social issues shall be dealt separately in accordance with the provisions of Social Management Framework (SMF, A-C) placed in the TSECL’s ESPPF.

#### 4.8. Summary of Impacts

72. Based on the above assessment, temporary impacts on loss of crops, trees, other structures and number of APs are summarized below in **Table 4.9**.

**Table 4.9: Summary of Impacts**

Particulars	Details
Length of Transmission/Distribution Line ( Km)	89.326/ 213.595 km
Number of Towers/ Poles (Nos.)	216/ 7553
Total Area under RoW (in acre)	<b>2021.04</b>
Total APs (Nos.)	983
Affected Structures (Small Sheds for agricultural purpose(Nos.))	03
Area of Temporary Damages for crop compensation (in acre)	262.585
Total Trees (Nos.)	46060 + 1633 Bamboo

*Source: Detailed Survey*

## V. ENTITLEMENTS, ASSISTANCE AND BENEFITS

### 5.1. Entitlements

73. There is no involuntary acquisition of land involved; only temporary damage will occur during construction of transmission/distribution lines for which compensation is paid as per relevant regulations/norms. APs will be entitled for compensation for land loss and other towards temporary damages to crops/trees/structures etc. as per the Entitlement Matrix given in **Table 5.1**. Compensation towards temporary damages to all eligible APs including non-title holders is paid after assessment by relevant authorities of State Govt.

74. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. One time additional lump sum assistance will be paid to vulnerable households not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills.

### 5.2. Entitlement Matrix

75. An Entitlement Matrix for the subprojects is given in **Table 5.1**.

**Table 5.1: Entitlement Matrix**

Sl.	Type of Issue/ Impact	Beneficiary	Entitlement Options
1.	Land area below tower base	Owner	100% land cost at market value as ascertained by revenue authorities or based on negotiated settlement without actual acquisition/title transfer.
2.	Land coming in corridor of width of Right of Way (#)	Owner	15% of land cost as decided by District Commissioner or any other competent authority
3.	Loss/damage to crops and trees in line corridor	Owner/ Tenant/ sharecropper/ leaseholder	Compensation to actual cultivator at market rate for crops and 8 years income for fruit bearing trees*. APs will be given advance notice to harvest their crops. All timber* will be allowed to retain by the owner.
4..	Other damages (if applicable)	All APs	Actual cost as assessed by the concerned authority.
5.	Loss of structure		
(i)	House	Titleholders	Cash compensation at replacement cost (without deduction for salvaged material and depreciation

Sl.	Type of Issue/ Impact	Beneficiary	Entitlement Options
			value) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below.
(ii)	Shop/ Institutions/ Cattle shed	Individual/ Titleholders	Cash compensation plus Rs. 10000/- for construction of working shed/shop plus transition benefits as per category-5 below
6.	Losses during transition under (i) & (ii) above for Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
7.	Tribal/ Vulnerable APs	Vulnerable APs <sup>8</sup>	One time additional lump sum assistance not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC.

**(#) Compensation for land value as per MoP guidelines dated 15.10.2015 shall be paid once Govt. of Tripura adopt the said guidelines for implementation.**

**\* Assistance/help of Forest department for timber yielding trees and Horticulture department for fruit bearing trees shall be taken for assessing the true value.**

### 5.3. Procedure of Tree/crop compensation

76. In exercise of the powers conferred by section 164 of the Electricity Act, 2003, Deptt. of Power, Govt. of Tripura vide notification dated 20<sup>th</sup> June 2014, has authorized TSECL to exercise all the power vested in the Telegraph Authority under part-III of the Indian Telegraph Act, 1885, to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. However, the provisions of same act in Section 10 (d) stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, TSECL / POWERGRID shall pay compensation to land owners towards damages, if any for tree, crop etc. during implementation of project as well as during operation and maintenance phase. The procedure followed for such compensation is as follows:

77. TSECL follows the principle of Avoidance, Minimization and Mitigation in the construction of line in agricultural field and cropping areas due to inherent flexibility in phasing the construction activity and tries to defer construction in cropped area to facilitate crop harvesting. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. All efforts are also taken to minimize the crop damage to the extent possible in such cases.:

<sup>8</sup> Vulnerable APs include scheduled tribes residing in scheduled areas/ physically handicapped/ disabled families etc.

78. As regard of trees coming in the Right of Way (RoW) following procedure is adopted for enumeration:

- All the trees which are coming within the clearance belt of RoW on either side of the center line are identified and marked/numbered from one AP to the other and documented.
- Type, Girth (Measured 1 m. above ground level), approximate height of the tree is also noted for each tree
- Trees belonging to Govt., Forest, Highways and other local bodies may be separately noted down or timely follow up with the concerned authorities for inspection and removal.
- Guava, Lemon, and other hybrid trees which are not of tall growing nature are not marked for cutting since these trees can be crossed using standard tower extensions if required.

79. A notice under Electricity Act, 2003/ Indian Telegraph Act, 1885 is served to the landowners informing that the proposed transmission line is being routed through the property of the individual concerned. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops/land inevitably likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owners. A copy of said notice is further issued to the Revenue Officer/SDM, who has been authorized by the Tripura Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

80. The revenue officer shall further issue a notice of intimation to the concerned land owner and inspect the site to verify the documents related to the proof of ownership and a detailed Mouja list is prepared for the identified trees/ crops/ land for tower footing inevitably damaged during the course of the construction. For assessing the true value of timber yielding trees help of forest officials is taken and for fruit bearing trees help of Horticulture department is taken.

81. The Mouja list contained the land owner details; type of tree/crop, its present age, variety, yielding pattern etc. and the same is prepared at site in the presence of the land owner. These Mouja lists are further compiled and a random verification was conducted by the concerned DC or his authorized representative in order to ascertain the assessment carried out by the revenue office is genuine and correct. After this process the District Collector issue a tree cutting permission to TSECL to enable removal / damage to the standing tree/crop identified in the line corridor.

82. Once the tree/crop is removed / damaged, TSECL shall issue a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is generated by means of a computerized

programme developed by the National Informatics Center exclusively for this purpose. The detailed Valuation statement thus generated using this programme is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors or Council Authority.

83. On approval of compensation, the revenue officer shall further intimate the amount payable to the different landowners and TSECL/POWERGRID will arrange the payment by way Cheque/online transfer to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses. Process of tree/crop compensation is depicted in **Figure-5.1**.

#### **5.4 Land Compensation for Tower Footing & RoW Corridor**

As per present practices, full compensation (100%) towards land value in tower base areas as decided by the district authority is paid towards damages to the affected persons/land owners. However, TSECL/POWERGRID shall pay the land compensation for tower footing and RoW corridor as per prescribed norms once Govt. of Tripura adopt MoP guidelines of Oct,'15 for implementation in State.

#### **5.5. Compensation for Structure**

84. No physical displacement is envisaged in the proposed project. Displacement of structures is normally not envisaged due to flexibility of routing of transmission/distribution line. However, whenever it is necessary, compensation for structures as per entitlement matrix shall be provided (**refer Table 5.1**). In the instant case, 03 number of small structures likely to be encountered in the right of way of proposed transmission/distribution lines. These are small sheds/small storage which are associated with the agricultural fields. People do not use these small structures/sheds for residential purpose. A notice for damage is issued to APs and the joint measurement by TSECL /POWERGRID and APs will be done and verified by revenue official for actual damages. The compensation will be paid to the APs as decided by committee based on state government norms. Hence, compensation is paid parallely with the construction activity of line.

#### **5.6. Compensation Disbursement Module**

85. In order to streamline the compensation process, a disbursement modules has been developed (**Table 5.2**) specifying the time period with respect to various process/activities which will be implemented during the project execution.

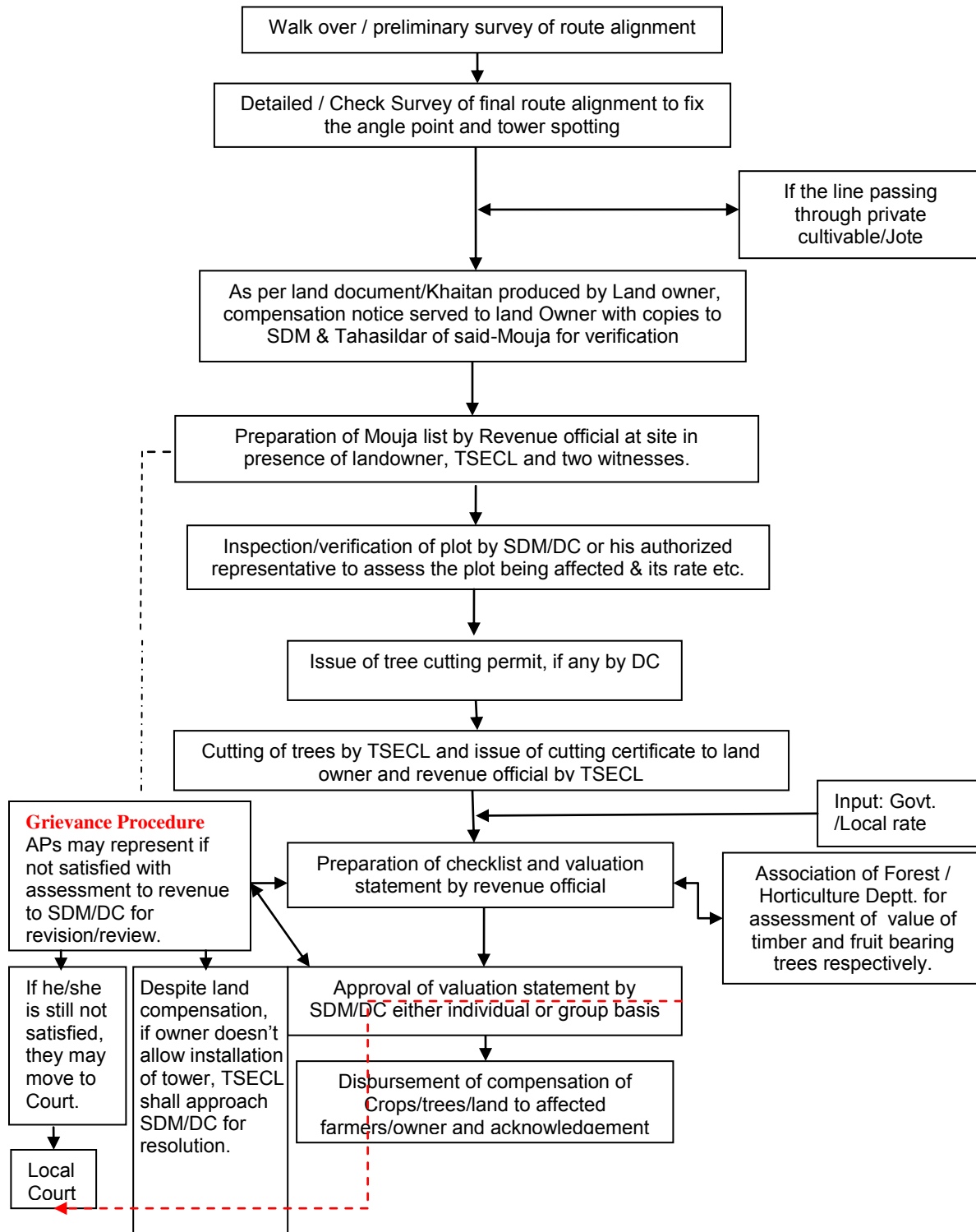
**Table 5.2: Compensation Disbursement Module**

<b>Activity/Stage</b>	<b>Process</b>	<b>Maximum Time Period from Cut-Off date</b>
Tower Foundation/ Erection/ Stringing	Serving of Notice ( <i>Cut-off date</i> )	0 date
	Verification of Ownership by Revenue Deptt.	15 days
	Assessment/Verification of damages by Revenue Deptt.	45 days
	Online disbursement*	60 days**

\* *Provision of advance payment up to 25% (Rs. 1 lakh maximum) of total estimated land compensation already made in the RoW guidelines of POWERGRID and may also be implemented in the NERPSIP after consent of concerned State Utilities.*

\*\* *60 days is on maximum side. However, based on past experience it's normally concluded within 30-45 days.*

**Figure-5.1: Tree / Crop Compensation Process**



## VI. INFORMATION DISCLOSURE, CONSULTATION & PARTICIPATION

### 6.1. Consultations

86. Public consultation/information is an integral part of the project implementation. Public is informed about the project at every stage of execution. During survey also TSECL & POWERGRID site officials meet people and inform them about the routing of transmission and distribution lines. During the construction, every individual, on whose land tower is erected and people affected by RoW, are consulted. Apart from this, Public consultation using different technique like Public Meeting, Small Group Meeting, informal Meeting shall also be carried out during different activities of project cycle. During such consultation the public are informed about the project in general and in particular about the following;

- Complete project plan (i.e. its route and terminating point and substations, if any, in between);
- Design standards in relation to approved international standards;
- Health impacts in relation to EMF;
- Measures taken to avoid public utilities such as school, hospitals, etc.;
- Other impacts associated with transmission & distribution lines and TSECL approach to minimizing and solving them;
- Trees and crop compensation process.

87. In the instant project also, many group meetings were organized (informally and formally) in all villages where the interventions are likely to happen (**Table - 6.1**). These meetings were attended by Village Panchayat members, senior/respected person of village, interested villagers/general public and representatives from TSECL & POWERGRID. To ensure maximum participation, prior intimation in local language was given and such notices were also displayed at prominent places/panchayat office etc. Details of above public consultation meetings including minutes of meeting, list of participants and photographs are enclosed as **Annexure -5**.

**Table 6.1 Details of Consultations**

Date of meeting	Venue of Meeting	No. of Persons attended	Persons Attended
<b>Public Consultation Meeting</b>			
30.08.2014	BDO Office Conference Hall (Kathalia RD)	70	BDO, Local MLA, Representatives of Panchayat including Chairman, Vice Chairman & Members and Village



	Block)		Pradhan etc, local villagers & public in general.
<b>Informal Group Meeting</b>			
08.11.2017	Rastarmatha, Gokulnagar	15	Project affected persons & Local villagers
16.11.2017	Rastarmatha, Mohanpur	17	Project affected persons & Local villagers
18.11.2017	Rastarmatha, Bamutia	20	Project affected persons & Local villagers mostly women

88. During consultations/interaction processes with people of the localized areas, TSECL/POWERGRID field staffs explained benefit of the project, impacts of transmission/distribution line, payment of compensation for damaged of crops, trees, huts etc. as per The Indian Electricity Act, 2003 and The Indian Telegraph Act, 1885 and measures to avoid public utilities such as schools, hospital etc. People more or less welcomed the construction of the proposed project.

89. Various issues inter alia raised by the people during public consultation and informal group meetings are as follows;

- To Involve Village headman during survey work/finalization of line corridor;
- To engage local people in various works associated with construction of line and if required proper training may be provided to engage them.
- Early disbursement of compensation;

90. TSECL & POWERGRID representative replied their queries satisfactorily and it was assured that compensation would be paid in time after Revenue department fixed/award the amount.

## **6.2. Plan for further Consultation and Community Participation during Project Implementation**

91. The process of such consultation to be continued during project implementation and even during O&M stage. The progress and proposed plan for Public consultation is described in **Table**

### **6.2**

**Table 6.2: Plan for Future Consultations**

<b>S. N.</b>	<b>Activity</b>	<b>Technique</b>	<b>Schedule</b>
1.	Detailed/ Check survey	Formal/Informal Meeting at different places (20-50 Km) en-route final route alignment of line	Public meeting during pre- construction stage

2.	Construction Phase	Localized group meeting, Pamphlet/ Information brochures, Public display etc.	During entire construction period.
3.	O&M Phase	Information brochures, Operating field offices, Response to public enquiries, Press release etc.	Continuous process as and when required.

### 6.3. Information Disclosure

92. The CPTD will be disclosed to the affected households and other stakeholders by placing it on website. TSECL & POWERGRID site officials have been visiting construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. A notice also issued to APs after the detailed/ checks survey and finalization of tower location during the construction. Affected persons also visited site/construction offices of TSECL & POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD/Entitlement Matrix in local language will be placed at construction offices/ sites. The CPTD will be disclosed on the World Bank website. TSECL & POWERGRID will organize further public consultation meetings with the stakeholders to share the views of public and all possible clarifications. This consultation process will continue throughout the project implementation period.

## VII. INSTITUTIONAL ARRANGEMENTS

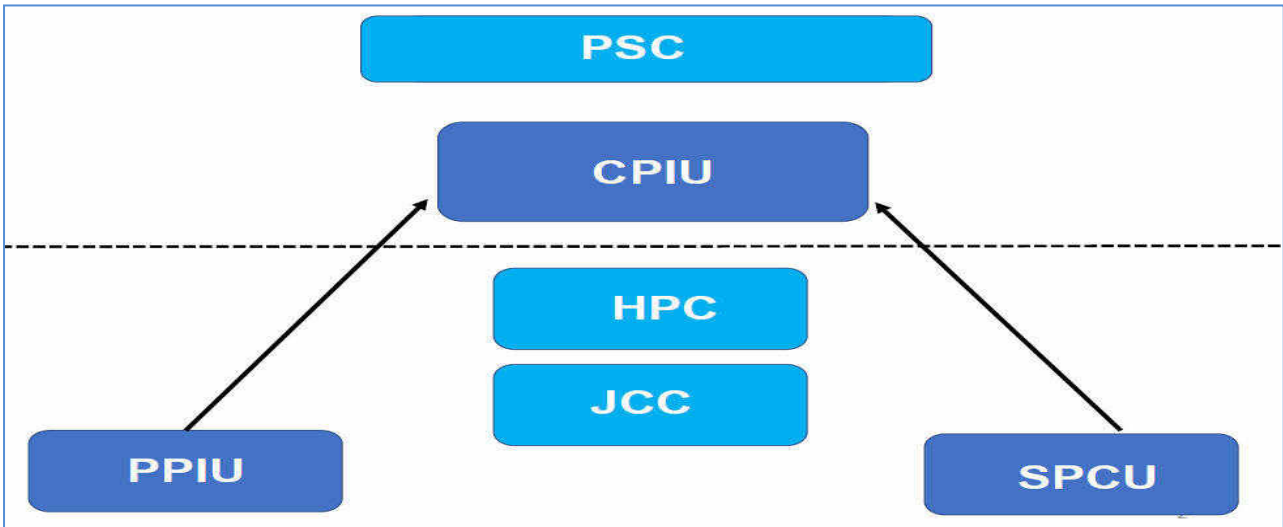
### 7.1 Administrative Arrangement for Project Implementation

93. Ministry of Power (MoP), Gol has appointed POWERGRID as Implementing Agency (IA) to implement the project in close coordination with the respective state power utilities and departments. POWERGRID will implement the project based on the Implementation/Participation agreements that were signed separately between POWERGRID and the power utilities. However, the ownership of the assets shall be with respective State government or State Utilities, which upon progressive commissioning shall be handed over to them for taking care of Operation and Maintenance of assets. The arrangement for monitoring and reviewing of project from the perspective of environment and social management will form part of overall arrangements for project management and implementation environment. Following implementation arrangement has been proposed at different levels for smooth implementation of this project;

**Central Project Implementation Unit (CPIU)** - A body responsible for coordinating the preparation and implementation of the project and shall be housed within the IA's offices at Guwahati. The "Project-In-Charge" of IA & Head of each of the SPCU shall be a member of CPIU.

**State Project Coordination Unit (SPCU)** – A body formed by the Utility and responsible for coordinating with IA in preparing and implementing the project at the State level. It consist of experts across different areas from the Utility and shall be headed by an officer of the rank not below Chief Engineer, from the Utility.

**PMC Project Implementation Unit (PPIU)** – A body formed by the IA, including members of Utility on deputation, and responsible for implementing the Project across the State, with its personnel being distributed over work site & working in close association with the SPCU/ CPIU. PIU report to State level "Project Manager" nominated by the Project-in-Charge of IA. The IA will have a Core team stationed at the CPIU on permanent basis and other IA officers (with required skills) will visit as and when required by this core team. This team shall represent IA and shall be responsible for all coordination with SPCU, PIU, within IA and MoP, Gol. CPIU shall also assist MoP, Gol in monitoring project progress and in its coordination with The Bank.



## 7.2. Review of Project Implementation Progress:

94. To enable timely implementation of the project/subprojects, following committee has been setup to review the progress;

- A. Joint Co-ordination Committee (JCC):** IA and SPCU nominate their representatives in a body called JCC to review the project. IA shall specify quarterly milestones or targets, which shall be reviewed by JCC through a formal monthly review meeting. This meeting forum shall be called as Joint Co-ordination Committee Meeting (JCCM). The IA shall convene & keep a record of every meeting. MoP, Gol and The Bank may join as and when needed. Minutes of the meeting will be shared with all concerned and if required, with Gol and The Bank.
- B. High Power Committee (HPC):** The Utility in consultation with its State Government shall arrange to constitute a High Power Committee (HPC) consisting of high level officials from the Utility, State/ District Administration, Law enforcement agencies, Forest Department. etc. so that various permission/ approvals/ consents/ clearances etc. are processed expeditiously so as to reach the benefits of the Project to the end consumers. HPC shall meet on bimonthly basis or earlier, as per requirement. This forum shall be called as High Power Committee Meeting (HPCM) and the SPCU shall keep a record of every meeting. Minutes of the meeting will be shared with all concerned and if required, with Gol and The Bank.
- C. Contractor’s Review Meeting (CRM):** Periodic Review Meeting will be held by officials of PIU with Contractors at field offices, State Head Quarters (PIU location) and if required with core team of IA at Guwahati. These shall be called “Contractor’s Review Meeting” (CRM). PIU shall

keep a record of all CRMs, which shall be shared with all concerned and if required, with Gol and The Bank.

- D. A review will be held among MoP, Gol, The Bank, State Government., Utility and IA, at four (4) months interval or earlier if needed, primarily to maintain oversight at the top level and also to debottleneck issues that require intervention at Gol/ State Government level. Minutes of the meeting shall be prepared by IA and shared with all concerned.

### **7.3. Arrangement for\_Safeguard Implementation**

95. At the central project implementation level (CPIU) based at Guwahati, POWERGRID has set up an Environmental and Social Management cell (ESMC) which is headed by Dy. General Manager(DGM) to oversee Environmental and Social issues of the projects and to coordinate the SPCU & Site Offices.

96. At the State level, POWERGRID has already set up PPIU at the capital of each participating State. The PPIU is staffed with dedicated multidisciplinary team headed by Project Manager who is also responsible for overseeing and implementing the environmental and social aspects of project in their respective state. The PPIU team is assisted by a dedicated Field Officer (Environment & Social Management) who has been specifically recruited for this purpose by POWERGRID. Moreover, State Utilities have constituted State Project Coordination Unit (SPCU) at each state and also designated their Environmental & Social Officer within SPCU to work in close co-ordination with the PMC Project Implementation Unit of POWERGRID and CPIU team at Guwahati. Major responsibilities of Environment and Social team at State level are conducting surveys on environmental and social aspects to finalize the route/substation land, implementation Environment Management Plan (EMP)/CPTD, co-ordination with the various statutory departments, monitoring EMP/CPTD implementation and producing periodic progress reports to CPIU.

97. In the instant subprojects, POWERGRID will implement the CPTD in close co-ordination with TSECL which includes overall coordination, planning, implementation, financing and maintaining all databases & also work closely with APs and other stakeholders. A central database will also be maintained for regular updation of social assessment & compensation data. State Utilities & POWERGRID will ensure that local governments are involved in the CPTD implementation to facilitate smooth settlement of compensation related activities. Roles and responsibilities of various agencies for CPTD implementation are presented in **Table 7.1**.

**Table 7.1: Agencies Responsible for CPTD Implementation**

Activity	Agency Responsible	
	Primary	Secondary
Implementing CPTD	Field staffs of POWERGRID & TSECL	
Updating the CPTD	POWERGRID	TSECL
Review and Approval of CPTD	TSECL	POWERGRID
Verification survey for identification of APs	POWERGRID, TSECL field staffs	Revenue Officials
Survey for identification of plots for Crop/Tree/ other damages Compensation	POWERGRID, TSECL	Revenue Officials
Consultation and disclosure of CPTD to APs	POWERGRID, TSECL	Revenue Officials
Compensation award and payment of compensation	Revenue Dept. / Competent Authority	POWERGRID, TSECL
Fixing of replace cost and assistance	Revenue Dept. / Competent Authority	POWERGRID, TSECL
Payment of replacement cost compensation	POWERGRID & TSECL	Revenue Dept.
Takeover temporary possession of land/houses	POWERGRID & TSECL	Revenue Dept.
Hand over temporary possession land to contractors for construction	POWERGRID & TSECL	Contractor
Notify construction starting date to APs	POWERGRID, TSECL Field Staff	Contractor
Restoration of temporarily acquired land to its original state including restoration of private or common property resources	Contractor	POWERGRID & TSECL
Development, maintenance and updating of Compensation database	POWERGRID & TSECL	
Development, maintenance and updating of central database	POWERGRID & TSECL	
Internal monitoring	POWERGRID & TSECL	
External monitoring, if required	POWERGRID & TSECL	

#### **7.4. Responsibility Matrix to manage RoW Compensation**

98. In order to manage the RoW compensation effectively, a Work Time Breakdown (WTB) matrix depicting sequence of activities, timing, agencies responsible have been drawn both for Tree/Crop and Land compensation which will be implemented during project execution.

**a) WTB for Tree/Crop Compensation**

Activities	Responsibility		Time Schedule
	Primary	Secondary	
Identification of APs (During Tower spotting & Check Survey)	Contractor	TSECL & IA field staffs	In 3 different Stages i.e. before start of Foundation, Erection & Stringing Works
Serving Notice to APs	TSECL & IA field staffs	Revenue Dept.,	0 date
Verification of ownership	TSECL, IA & Revenue Dept.	ADC (if applicable)	0-15 days
Joint Assessment of damages	Revenue Dept. & Aps	TSECL / IA	16-45 days
Payment (online/DD) of compensation to AP*	TSECL & IA		46-60 days

**b) WTB for Land Compensation\*\* for Tower base and RoW corridor**

Activities	Responsibility		Time Schedule
	Primary	Secondary	
Identification of APs (During Tower spotting and Check Survey)	Contractors	TSECL & IA field staffs	Before start of Foundation/ Erection & Stringing Works
Fixation of land rate	DC, ADC/ Executive Committee (if applicable)	TSECL & IA	0 date
Serving Notice to APs	TSECL & IA field staffs	Revenue Dept.,	0-7 days
Assessment of compensation/ Verification of ownership	Revenue Dept./ ADC	TSECL & IA	8-15 days
Payment (online/DD) of compensation to AP*	TSECL & IA		16-30 days

\* AP can approach to DC for any grievance on compensation.

\*\* Discussion for release of certain % as advance is also under progress with Utilities.

**Note: Both a and b activities shall run parallelly**

## VIII. GRIEVANCE REDRESS MECHANISM

99. Grievance Redress Mechanism (GRM) is an integral and important mechanism for addressing/resolving the concern and grievances in a transparent and swift manner. Many minor concerns of peoples were addressed during public consultation process initiated at the beginning of the project. For handling grievance, a two tier GRM consisting of Grievance Redress Committee (GRC) at two levels, i.e. project/scheme level and Corporate/HQ level have been constituted. The project level GRCs include members from TSECL, POWERGRID, Local Administration, Village Council/Panchayat Members, Affected Persons representative and reputed persons from the society and representative from the autonomous districts council in case of tribal districts selected/decided on nomination basis under the chairmanship of project head. The composition of GRC also disclosed in Panchayat/Village council offices and concerned district headquarter for wider coverage

100. The complainant will also be allowed to submit its complaint to local project official who will pass it to GRC immediately but not more than 5 days of receiving such complaint. The first meeting of GRC will be organized within 15 days of its constitution/disclosure to formulate procedure and frequency of meeting. In case of any complaint, GRC meeting shall be convened within 15 days. If Project level GRC is not able to take decision it may refer the complaint to corporate GRC for solution. GRC endeavours to pronounce its decision within 30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review. The proposed mechanism does not impede access to the country's judicial or administrative remedies at any stage.

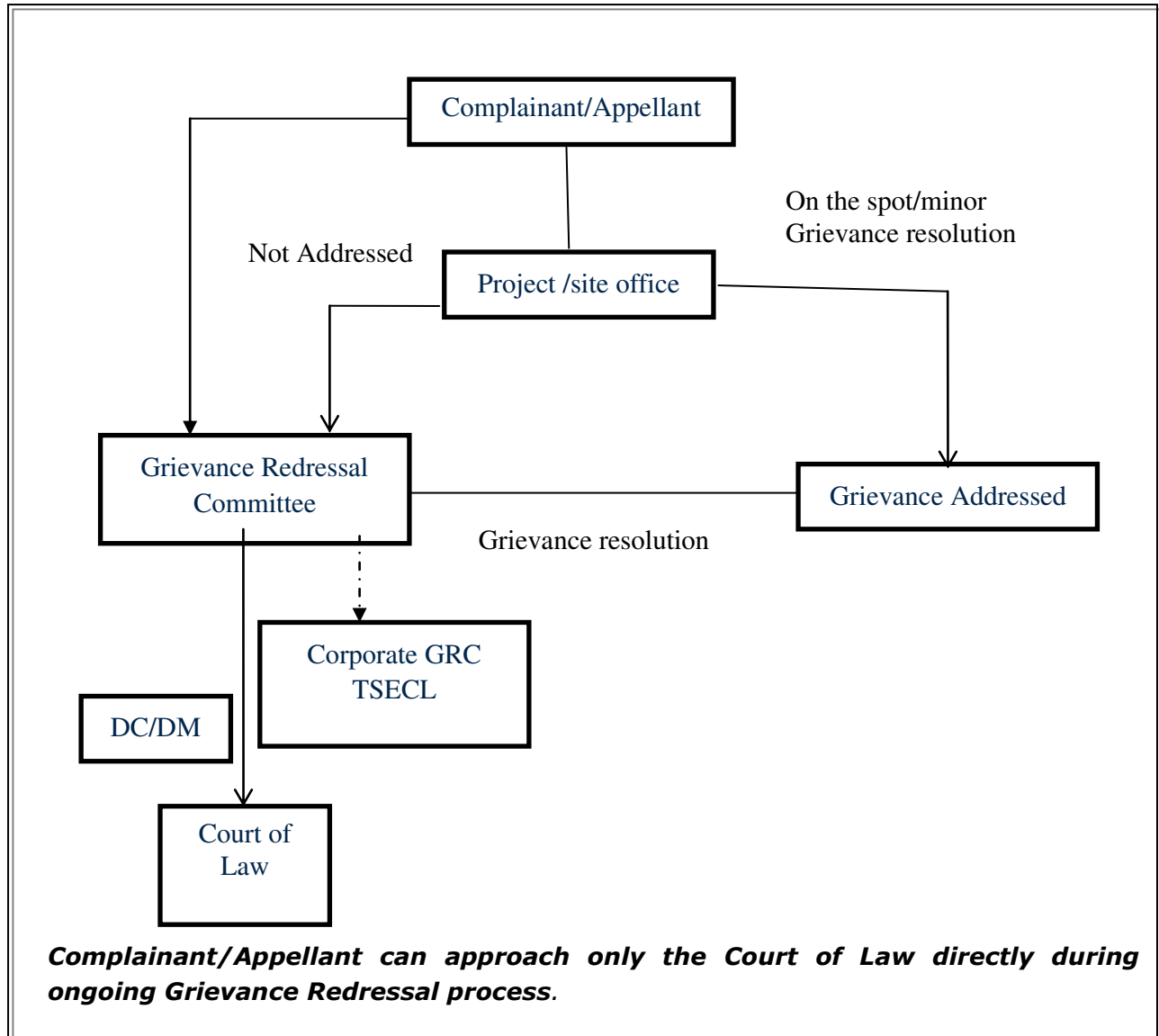
101. The corporate level GRC shall function under the chairmanship of Director (Transmission) who will nominate other members of GRC including one representative from corporate ESMC who is conversant with the environment & social issues. The meeting of Corporate GRC shall be convened within 7-10 days of receiving the reference from project GRC or complainant directly and pronounce its decision within next 15 days.

102. Apart from above, grievance redressal is in built in crop/tree compensation process where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector/ its authorised



representative also provides forum for raising the grievance towards any irregularity/complain. Moreover, TSECL & POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. Details are depicted below in **Figure-8.1:**

**Figure-8.1: Flow Chart of Grievance Redress Mechanism**



## IX. BUDGET

103. The CPTD Implementation cost estimate for the project includes eligible compensation for loss of crops/ trees/ huts and support cost for implementation of CPTD, monitoring, other administrative cost etc.. Though Govt. of Tripura has not yet adopted MoP guidelines for RoW compensation for implementation, a budget provision has been made for compensation for Tower Base (@ 85% of the land cost) and RoW Corridor (max. @15% of the land cost) as per the norms. Accordingly the cost has been estimated for proposed 132 kV line only in the budget by including these provisions. However, this is a tentative budget which may change during the original course of implementation. The unit cost for the loss of crop has been derived through rapid field appraisal and based on TSECL & POWERGRID's previous experience of similar project implementation. Contingency provision equivalent to 3% of the total cost has also been made to accommodate any variations from this estimate. Sufficient Budget has been provided to cover all compensation towards crops losses, other damages etc. As per TSECL & POWERGRID's previous projects and strategy for minimization of impacts, an average of 50-60% of the affected land area is expected for compensation for crops and other damages. Structure will be avoided to the extent possible. However, if any structure is affected, budget provisions are available to cover all damages as per entitlement matrix. In any case no residential structure shall be affected. Therefore, provisions of budget expenditure for implementation of CPTD for the subprojects considering corridor of 20 meter & 10 meter maximum for 132 kV & 33 kV line respectively.

### 9.1 Compensation for Land for Tower Base and RoW Corridor

104. The land area for 132 kV tower base is estimated as 0.036 acre per km. Similarly, for RoW corridor the area is estimated 6.635 acre per km. The cost of land is estimated @ Rs. 15 lakh/acre considering the land use type as agriculture land in rural setting. Accordingly the cost of land compensation towards tower base & RoW corridor for overhead line is thus estimated as Rs. 1374.517 Lakhs. A detail of cost is given below in **Table 9.1**.

**Table 9.1: Cost of Land Compensation for Tower Base & RoW Corridor**

Name of Line	Line Length (Km)	Land Area for Tower Base (acre)	Land Area for RoW Corridor* (acre )	Avg. Cost of Land (Lakhs / acre)	Total in Lakhs (Tower base @ 85% & Corridor @15%)
Rokhia-Rabindranagar 132kV D/C	22.031	0.793	146.176	15.00	339.007
Rabindranagar-Belonia 132kV D/C	63.151	2.273	419.007		971.747

LILO of 132kV Rokhia-Surjamaninagar line at 132/33kV Gokulnagar	2.92	0.105	19.374		44.930
LILO of 132kV Agartala-Dhalabil line at 132/33kV Mohanpur	1.224	0.044	8.121		18.833
<b>TOATL</b>					<b>1374.517</b>

\* Effective RoW corridor has been considered after excluding tower base area

## 9.2. Compensation for Crops and Trees

105. The crop compensation is calculated in consultation with revenue authorities in terms of yield/hectare and rate/quantity for prevailing crops in the area. Similarly, tree compensation is calculated on basis of tree enumeration, tree species and an estimate of the yield. In case of fruit bearing trees compensation will be calculated on the basis of 8 years yield (assessed by revenue/horticulture department). Market rates of compensation are assessed by the relevant government authorities. The estimation of crop and tree damages are based on preliminary investigation and accordingly budgetary provisions are made which will be updated during implementation. Details of line wise cost is given in **Table 9.2** below.

**Table 9.2: Cost of Compensation for Crops and Trees**

SI No	Name of the Line	Total Length (Km)	Compensation /Km (In Lakh)	Total compensation cost for Crops & trees (Lakh)
1.	Rokhia-Rabindranagar 132kV D/C	22.031	5.0	110.155
2.	Rabindranagar-Belonia 132kV D/C	63.151	5.0	315.755
3.	LILO of 132kV Rokhia-Surjamaninagar at 132/33kV Gokulnagar	2.92	5.0	14.6
4.	LILO of 132kV Agartala-Dhalabil line at 132/33kV Mohanpur	1.224	5.0	6.12
<b>Total</b>				<b>446.63</b>

## 9.3. Summary of Budget

106. The total indicative cost is estimated to be **INR 1885.772 Lakhs** equivalent to **USD 2.74** million. Details are given in **Table 9.3**. The following estimated budget is part of complete project cost as on date. However, actual updation of the estimated cost shall be updated during execution.

**Table 9.3: Summary of Budget**

<b>Item</b>	<b>Amount in Lakh (INR)</b>	<b>Amount in (Million USD)</b>
<b>A. Compensation</b>		
A-1: Loss of Crops and Trees	446.63	0.65
A-2: Land Compensation for Tower Base and RoW Corridor <sup>9</sup>	1374.517	2.0
<b>Sub Total-A</b>	<b>1821.147</b>	<b>2.65</b>
<b>B: Implementation Support Cost</b>		
B-1: Man-power involved for CPTD Implem. & Monitoring	4.70	0.0048
B-2: External Monitoring, if required	5.00	0.0052
<b>Sub Total- B</b>	<b>9.70</b>	<b>0.01</b>
<b>Total (A+B)</b>	<b>1830.847</b>	<b>2.66</b>
<b>Contingency (3%)</b>	<b>54.925</b>	<b>0.08</b>
<b>Grand Total</b>	<b>1885.772</b>	<b>2.74</b>

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<sup>9</sup> Payment of Compensation subject to adoption/implementation of MoP guidelines of Oct. '15 by Govt. of Tripura

## X. IMPLEMENTATION SCHEDULE

107. Following work schedule has been drawn for implementation of CPTD considering letter of award for execution of work placed in end of 2016. Tentative implementation schedule for project including various sub tasks presented in **Table 10.1**.

**Table 10.1 Tentative Implementation Schedule**

Sl. No.	Activity	2017				2018				2019			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
<b>1.</b>	<b>Initial CPTD Matrix disclosure</b>												
<b>2.</b>	<b>Detailed Survey</b>												
<b>3.</b>	<b>Public Consultation</b>												
<b>4.</b>	<b>Compensation Plan Implementation</b>												
i)	Compilation of land record, ownership,												
ii)	Finalization of list of APs, fixing rate by DC												
iii)	Serving of Notice to APs												
iv)	Joint assessment & acknowledgement by APs												
v)	Validation of Compensation amount												
vi)	Compensation Payment												
<b>5.</b>	<b>Civil Works</b>												
<b>6.</b>	<b>Review/ Activity Monitoring</b>												
i)	Monthly												
ii)	Quarterly												
iii)	Half yearly												
iv)	Annual												
<b>7.</b>	<b>Grievance redress</b>												
<b>8.</b>	<b>CPTD Documentation</b>												
<b>9.</b>	<b>External Monitoring, if required</b>												

## XI. MONITORING AND REPORTING

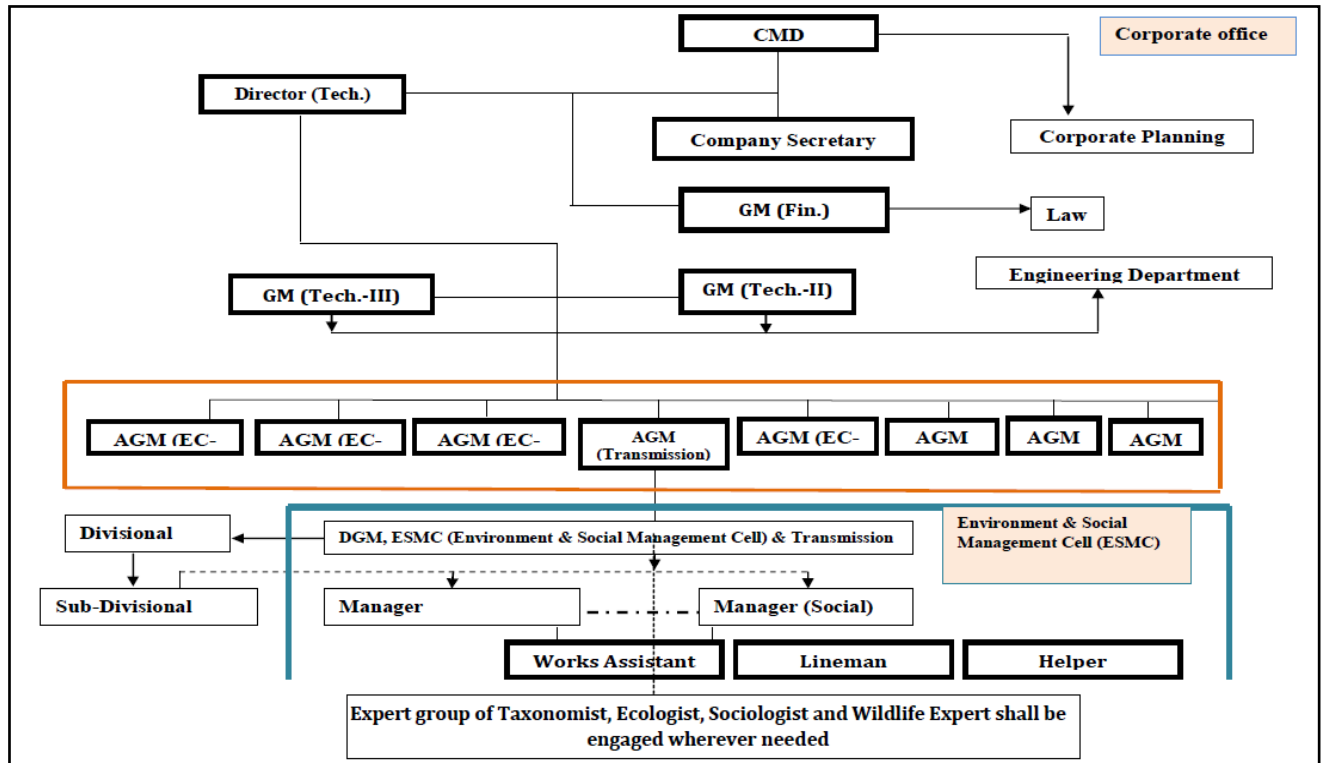
108. Monitoring is a continuous process at all stages of project. Monitoring of CPTD implementation will be the responsibility of POWERGRID as well as the State Utility.

109. Internal monitoring will include: (i) administrative monitoring: daily planning, implementation, feedback and troubleshooting, maintenance, and progress reports and (ii) socio-economic monitoring: compensation for land/crops/trees or any other damages, demolition if any, salvaging materials, dates for consultations and number of grievance/complaints received etc.. Monitoring and reports documenting progress on compensation/ implementation of CPTD will be provided by POWERGRID to World Bank for review semi-annually.

110. If required, POWERGRID/State Utility will engage the services of an independent agency/External monitoring and provisions for the same have been made in the budget component.

111. TSECL is well equipped to implement and monitor its environment and social management plan including CPTD. Organizational Support Structure of TSECL for monitoring of above is given in **Figure-11.1**.

**Figure – 11.1: TSECL Support Structure for Safeguard Monitoring**



## ***ANNEXURE - 1***

# ***EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT***

## EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT

Three different alignments were studied with the help of Google Maps / published data such as Forest Atlas, Survey of India topographic sheets, etc. and walkover survey to arrive at the most optimum route to be considered for detailed survey. The comparative details of these three alternatives in respect of the proposed line are as follows;

### 1. 132 KV D/C ROKHIA - RABINDRANAGAR TRANSMISSION LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	<b>Route particulars</b> (Bee Line Length - 20 km)			
i.	Route Length (km)	22	25	23
ii.	Terrain			
	Hilly (Gentle slope)	50%	60%	80%
	Plain	50%	40%	20%
2.	<b>Environmental impact</b>			
i.	Name of District through which the line passes	Sepahijala	Sepahijala	Sepahijala
ii.	Towns in alignment	No major town. Nearby villages are Rokhia, & Kathalia	Nearby villages are Rokhia, & Kathalia	Nearby villages are Rokhia, & Kathalia
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement in Ha/km	38.34 ha/14.2 km	51.3ha/19 km	45.9ha/ 17 km
v.	Type of Forest (RF/PF/Mangrove/ Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	Reserved Forest	Reserved Forest	Reserved Forest
vi.	Density of Forests	Moderate	Moderate	Dense
vii.	Type of flora	Mainly Sal ( <i>Shorea robusta</i> ), Teak ( <i>Tectona grandis</i> ), Rubber ( <i>Hevea Brasiliensis</i> ), <i>Terminalia bellirica</i> , Bamboo ( <i>Bambusa indica</i> ) etc.	Mainly Sal ( <i>Shorea robusta</i> ), Teak ( <i>Tectona grandis</i> ), Rubber ( <i>Hevea Brasiliensis</i> ), <i>Terminalia bellirica</i> , Bamboo ( <i>Bambusa indica</i> ) etc.	Mainly Sal ( <i>Shorea robusta</i> ), Teak ( <i>Tectona grandis</i> ), Rubber ( <i>Hevea Brasiliensis</i> ), <i>Terminalia bellirica</i> , Bamboo ( <i>Bambusa indica</i> ) etc.
viii.	Type of fauna	Crow ( <i>Corvus culminates</i> ), Sparrow ( <i>Passer sp</i> ), Fox ( <i>Vulpes benghalensis</i> ) and various species of Monkeys, Cat, Snakes, Pigeon and Lizards, etc.	Crow ( <i>Corvus culminates</i> ), Sparrow ( <i>Passer sp</i> ), Fox ( <i>Vulpes benghalensis</i> ) and various species of Monkeys, Cat, Snakes, Pigeon and Lizards, etc.	Crow ( <i>Corvus culminates</i> ), Sparrow ( <i>Passer sp</i> ), Fox ( <i>Vulpes benghalensis</i> ) and various species of Monkeys, Cat, Snakes, Pigeon and Lizards, etc.



S.N	Description	Alternative-I	Alternative-II	Alternative-III
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural monuments	Nil	Nil	Nil
3.	<b>Compensation Cost</b>			
i.	Crop (Non Forest)	Rs 39.00 lakhs (Approx.)	Rs. 30.00 lakhs (Approx.)	Rs. 30.00 lakhs (Approx.)
ii.	Forest (CA, NPV etc.)	Rs. 7.64 Crores (Approx.)	Rs. 10.26 Crores (Approx.)	Rs. 9.18 Crores (Approx.)
4.	<b>Major Crossings</b>			
i.	Highway (National/State)	1 (SH)	NIL	NIL
ii.	Power line	Nil	Nil	Nil
iii.	Railway line	Nil	Nil	Nil
iv.	River crossing	1(Gumti River)	1(Gumti River)	1(Gumti River)
5.	<b>Overall Remarks</b>	Shortest line length with less forest involvement and minimum tree felling. Line route is easily approachable due to proximity to exiting road	Longer in line length involving maximum forest area and difficultly in accessibility	Line length is not much higher than Alt-1 but involve more forest area and tree felling

From the comparative analysis, it is evident that complete avoidance of reserved forest area is not possible as reserved forest invariably intercepts with all the three alternatives studied around the bee line. However, Alternative Route-I is shorter in length as compared to Alternative-II and Alternative-III and also involves minimum forest area. Additionally, Alternative-1 has better accessibility and approach due to the fact that it is passing mainly through plain area. Therefore, Alternative-I found to be the most optimum and recommended for detailed survey.

## 2. 132 KV D/C RABINDRANAGAR-BELONIA TRANSMISSION LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	<b>Route particulars</b> (Bee Line Length – 31.5 km)			
i	Route Length (km)	62	34.6	32.6
ii.	Terrain			
	Hilly (Gentle slope)	40%	60%	50%
	Plain	60%	40%	50%
2.	<b>Environmental impact</b>			
i	Name of District through which the line passes	Sepahijala and some part of South Tripura	Sepahijala and some part of South Tripura	Sepahijala and some part of South Tripura
ii	Towns in alignment	Kathalia, Udaipur, Bagafa & Belonia	Kathalia, & Belonia	Kathalia, & Belonia
iii	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv	Forest involvement in Ha/km	74.95Ha./ 27.75 km	56.7 Ha./ 21 km (7 km Trishna WL)	54 Ha./20 km (8 km Trishna WL)

S.N	Description	Alternative-I	Alternative-II	Alternative-III
v	Type of Forest (RF/PF/Mangrove/Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	Reserved Forest	Reserved Forest and Trishna Wildlife Sanctuary	Reserved Forest and Trishna Wildlife Sanctuary
vi	Density of Forests	Moderate	Dense	Dense
vii	Type of flora	Mainly Sal ( <i>Shorea robusta</i> ), Teak ( <i>Tectona grandis</i> ), Rubber ( <i>Hevea Brasiliensis</i> ), <i>Terminalia bellirica</i> , Bamboo ( <i>Bambusa indica</i> ) etc.	<i>Shorea robusta</i> , <i>Tectona grandis</i> , <i>Dipterocarpus turbinatus</i> , <i>Terminalia bellirica</i> , <i>Toona ciliata</i> , <i>Albizia procera</i> <i>Bambusa tulda</i> , <i>Melocana baccifera</i> , <i>Pennisetum purpureum</i> Schuma ch etc	<i>Shorea robusta</i> , <i>Tectona grandis</i> , <i>Dipterocarpus turbinatus</i> , <i>Terminalia bellirica</i> , <i>Toona ciliata</i> , <i>Albizia procera</i> <i>Bambusa tulda</i> , <i>Melocana baccifera</i> , <i>Pennisetum purpureum</i> Schuma ch etc
viii	Type of fauna	Crow ( <i>Corvus culminates</i> ), Sparrow ( <i>Passer sp</i> ), Fox ( <i>Vulpes benghalensis</i> ) and various species of Monkeys, Cat, Snakes, Pigeon and Lizards, etc.	Bison ( <i>Bos gorus</i> ), Wild Boar ( <i>Sus scrofa</i> ), Wild Cat ( <i>Felis chaus</i> ), Capped Langur ( <i>Trachypithecus pileatus</i> ), Slow loris ( <i>Nycticebus coucang</i> ), Hoolock Gibbon ( <i>Hylobates hoolock</i> ), Leopard ( <i>Panthera pardus</i> ), Fowl ( <i>Gallus gallus</i> ), Chinese Pangolin ( <i>Manis pentadactyla</i> ). White Breasted Kingfisher ( <i>Halcyon smyrnensis</i> ), Hornbill ( <i>Bucerotidae sp</i> ) etc.	Bison ( <i>Bos gorus</i> ), Wild Boar ( <i>Sus scrofa</i> ), Wild Cat ( <i>Felis chaus</i> ), Capped Langur ( <i>Trachypithecus pileatus</i> ), Slow loris ( <i>Nycticebus coucang</i> ), Hoolock Gibbon ( <i>Hylobates hoolock</i> ), Leopard ( <i>Panthera pardus</i> ), Fowl ( <i>Gallus gallus</i> ), Chinese Pangolin ( <i>Manis pentadactyla</i> ). White Breasted Kingfisher ( <i>Halcyon smyrnensis</i> ), Hornbill ( <i>Bucerotidae sp</i> ) etc.
ix	Endangered species, if any	Nil	Various species of Trishna WLS	Various species of Trishna WLS
x	Historical/cultural monuments	Nil	Nil	Nil
3	<b>Compensation Cost</b>			
i	Crop (Non Forest)	Rs 171.25 lakhs (Approx.)	Rs 68.00 lakhs (Approx.)	Rs 63.00 lakhs (Approx.)
ii	Forest (CA, NPV etc.)	Rs 14.99 Crore (Approx)	Rs 17.42 Crore (Approx)	Rs 17.74 Crore (Approx)
4.	<b>Major Crossings</b>			
i	Highway (National/State)	2 (NH-44)	1 (SH)	1 (SH)

S.N	Description	Alternative-I	Alternative-II	Alternative-III
ii	Power line	Nil	Nil	Nil
iii	Railway line	01(one)	Nil	Nil
iv	River crossing	Nil	Nil	Nil
<b>5.</b>	<b>Overall Remarks</b>	Although line length is longest, its avoid Trishna Wildlife Sanctuary	Line route involve Trishna Wildlife Sanctuary	Line route involve Trishna Wildlife Sanctuary and Bison Reserve

From the above comparative analysis, it is clear that although Alternative-I is longest route of the all three alternatives studied and also involves more forest area compared to other two alternatives. However, while other two alternatives are passing through Trishna Wildlife Sanctuary, Alternative – I completely avoids it. (the nearest point of Alternative-I is 0.6 Km far from Trishna WL boundary).Further It is also observed that complete avoidance of reserved forest is not possible in any of the route alignments studied around bee line. Therefore, Alternative-I is found more optimum and recommended for detailed survey.

### **3. Alternative analysis of Distribution 33 kV lines**

The distribution lines connect two substations in close vicinity which is intended for providing power supply to the predestined area. The line length are very less starting from 0.807 km to 17. 745 km and has negligible environment and social impact including no involvement of any forest area. Hence, no alternative have been studied for these lines.

***ANNEXURE - 2***

***MOP GUIDELINES DATED 15<sup>TH</sup> OCT.'15  
FOR PAYMENT OF COMPENSATION FOR  
TRANS LINE***

No.3/7/2015-Trans  
Government of India  
Ministry of Power  
Shram Shakti Bhawan  
Rafi Marg, New Delhi – 110001

Dated, 15<sup>th</sup> October, 2015

To

1. Chief Secretaries/Administrators of all the States/UTs  
(As per list attached)
2. Chairperson, CEA, New Delhi with the request to disseminate the above guidelines to all the stakeholders.
3. CMD, PGCIL, Gurgaon.
4. CEO, POSOCO, New Delhi.
5. Secretary, CERC, New Delhi.
6. CMD of State Power Utilities/SEBs

Subject: Guidelines for payment of compensation towards damages in regard to Right of Way for transmission lines.

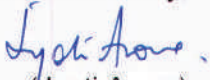
During the Power Ministers Conference held on April 9-10, 2015 at Guwahati with States/UTs, it has, *inter alia*, been decided to constitute a Committee under the chairmanship of Special Secretary, Ministry of Power to analyse the issues related to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this count. Subsequently, this Ministry had constituted a Committee with representatives from various State Governments and others. The Committee held several meetings to obtain the views of State Governments on the issue and submitted its Report along with the recommendations (copy of the Report is at **Annex-1**).

2. The Recommendations made by the Committee are hereby formulated in the form of following guidelines for determining the compensation towards "damages" as stipulated in section 67 and 68 of the Electricity Act, 2003 read with Section 10 and 16 of Indian Telegraph Act, 1885 which will be in addition to the compensation towards normal crop and tree damages. This amount will be payable only for transmission lines supported by a tower base of 66 KV and above, and not for sub-transmission and distribution lines below 66 KV:-

- (i) Compensation @ 85% of land value as determined by District Magistrate or any other authority based on Circle rate/ Guideline value/ Stamp Act rates for tower base area (between four legs) impacted severely due to installation of tower/pylon structure;

- (ii) Compensation towards diminution of land value in the width of Right of Way (RoW) Corridor due to laying of transmission line and imposing certain restriction would be decided by the States as per categorization/type of land in different places of States, subject to a maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act rates;
- (iii) In areas where land owner/owners have been offered/ accepted alternate mode of compensation by concerned corporation/ Municipality under Transfer Development Rights (TDR) policy of State, the licensee /Utility shall deposit compensation amount as per (i) & (ii) above with the concerned Corporation/ Municipality/ Local Body or the State Government.
- (iv) For this purpose, the width of RoW corridor shall not be more than that prescribed in the table at **Annex-2** and shall not be less than the width directly below the conductors.
3. Necessary action may kindly be taken accordingly. These guidelines may not only facilitate an early resolution of RoW issues and also facilitate completion of the vital transmission lines through active support of State/ UT administration.
4. All the States/UTs etc. are requested to take suitable decision regarding adoption of the guidelines considering that acquisition of land is a State subject.

Yours faithfully,

  
(Jyoti Arora)

Joint Secretary (Trans.)

Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following:

1. Secretaries of Government of India (Infrastructure Ministries/Deptt including MoEF - As per attached list)
2. Prime Minister's Office (Kind Attn: Shri Nripendra Mishra, Principal Secretary to PM).
3. Technical Director, NIC, Ministry of Power with the request to host on the website of Ministry of Power.

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Copy to PS to Hon'ble MoSP (IC) / Secretary (Power) / AS (BNS) / AS (BPP) / All Joint Secretaries/EA/ All Directors/DSs, Ministry of Power.

***ANNEXURE - 3***

***DETAILS OF TOWER/POLE SCHEDULE  
OF PROPOSED LINES ROUTE  
ALIGNMENT***

Rokhia - Rabindranagar

Annexure-A10 (Sheet-1)

Proposed 132kV. D/C Transmission Line from ROKHIA to RABINDRANAGAR

Tower Schedule

AP No.	Location No.	Type of Tower	Angle of Deviation	Span in Metre	Cummu. Dist.(M)	Length of Section	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details	Village Name	Type of Foundation	Type of Farming
							Left	Right	Total	Left	Right	Total						
		GNT	00°00'00"	18.11	0		0	150	150	0	240	240	18	9		Rokhia	WET	Pipe
AP01	1/0	DDE	17°35'09"	RT	18.11	18.11	-132	-85	-218	-222	-229	-451	302	151		Rokhia	DRY	Counter Poise
	1/1	DB+09		283.89	302	283.89	369	289	658	513	374	887	592	296	Pucca Road, 440 volt Line-2 times, Kancha Road			Counter Poise
	1/2	DB+00		308	610	308	19	277	296	-66	353	286	624	312	11 Kv. Line, Pucca Road		DRY	Counter Poise
AP02	2/0	DC+00	24°18'10"	LT	925.5	315.5	38	123	161	-37	104	67	618	309	Brick Road-2times, Ditch-2 times, 11 Kv. Line		DRY	Counter Poise
	2/1	DA+00		302.5	1228		180	129	309	198	114	312	609	304		Manikyanagar	WET	Pipe
AP03	3/0	DB+06	10°47'20"	RT	1534.48	608.98	177	61	239	193	-8	185	647	324		Manikyanagar	WET	Pipe
	3/1	DA+00		340.52	1875		279	197	476	349	250	599	567	283	Cross Arm Modify		DRY	Counter Poise
	3/2	DB+00		226	2101		29	44	73	-24	-13	-37	493	246			DRY	Counter Poise
AP04	4/0	DB+03	06°15'03"	LT	2367.79	266.79	223	95	318	280	49	329	604	302		Manikyanagar	DRY	Counter Poise
	4/1	DB+09		337.21	2705		242	294	536	288	351	639	747	374			DRY	Counter Poise
	4/2	DB+09		410	3115		116	144	260	59	142	201	707	354			DRY	Counter Poise
				297														

Refer (Gantry) to AP2



Proposed 132kV. D/C Transmission Line from ROKHIA to RABINDRANAGAR

Tower Schedule

AP No.	Location No.	Type of Tower	Angle of Deviation	Span in Metre	Cummu. Dist.(M)	Length of Section	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details	Village Name	Type of Foundation	Type of Earthing
							Left	Right	Total	Left	Right	Total						
AP11	10/3	DA+00		240	6965		129	110	239	123	103	226	520	260			DRY	Counter Poise
AP12	10/4	DA+00			7205		130	119	249	137	125	261	460	230			DRY	Counter Poise
AP13	10/5	DB+00		220	7425	740.00	101	297	398	95	364	459	605	302			DRY	Counter Poise
AP14	11/0	DC+00	28°17'58" RT	384.82	7809.82	384.82	87	95	182	21	54	75	705	352	Pucca Road	Anandapur	DRY	Counter Poise
AP15	12/0	DD+00	30°00'31" LT	319.83	8129.64	319.83	225	113	338	256	103	369	577	288		Anandapur	DRY	Counter Poise
AP16	13/0	DB+00	11°50'47" LT	257.02	8386.66	257.02	144	234	378	154	336	490	404	202	Pucca Road, 220 volt Line, Kancha Road, 11 Kv. Line	Anandapur	DRY	Counter Poise
AP17	14/0	DD+00	30°54'15" RT	146.65	8533.31	146.65	88	65	-22	-190	68	-122	269	134	Brick Road, 11 Kv. Line, Nallah, pond, 220 volt Line	Anandapur	DRY	Counter Poise
AP18	15/0	DC+00	28°40'23" LT	122.25	8655.57	122.25	57	155	212	54	110	164	577	288	Brick Road	Kamalnagar	WET	Pipe
AP19	15/1	DB+03	454.43	9110	454.43	299	48	347	345	31	376	604	302		Pond, Ditch, Brick Road	Kamalnagar	WET	Pipe
AP20	16/0	DD+00	33°55'56" RT	149.31	9259.31	149.31	101	158	259	118	177	295	405	203	Kancha Road-2 times, 220 volt Line-2 times		DRY	Counter Poise
AP21	16/1	DB+00	255.69	9515	255.69	98	193	291	79	190	269	653	326			Kamalnagar	DRY	Counter Poise
AP22	16/2	DA+00	397	9912		204	119	323	207	119	326	638	319		Nallah		DRY	Counter Poise

## Proposed 132kV. D/C Transmission Line from ROKHIA to RABINDRANAGAR

## Tower Schedule

AP No.	Location No.	Type of Tower	Angle of Deviation	Span in Metre	Cum. Dist.(M)	Length of Section	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details	Village Name	Type of Foundation	Type of Earthing
							Left	Right	Total	Left	Right	Total						
	16/3	DA+00		241	10153		122	152	273	122	162	284	513	257			DRY	Counter Poise
	16/4	DA+00		272	10425		120	196	316	110	238	349	531	265	Kancha Road		DRY	Counter Poise
				258.85											Brick Road, kancha Road			
AP17	17/0	DD+06	48°53'49"	LT	10683.85	1168.85	63	208	271	21	213	234	660	330		Batadola	DRY	Counter Poise
				401.15														
	17/1	DB+03			11085	401.15	193	141	333	188	100	287	813	406			DRY	Counter Poise
				411.52											Nallah			
AP18	18/0	DC+00	20°04'07"	LT	11496.52	411.52	271	237	507	312	348	660	534	267		Batadola	DRY	Counter Poise
				122.42											66 Kv. S/C HT Line			
AP19	19/0	DB+03	13°59'46"	RT	11618.95	122.42	-114	76	-39	-226	18	-208	456	228		Batadola	WET	Pipe
				333.9											Ditch, Pucca Road, 11 Kv. Line			
AP20	20/0	DD+00	51°47'28"	RT	11952.85	333.9	258	217	476	316	227	543	739	370		Motinagar	DRY	Counter Poise
				405.15														
	20/1	DA+03			12358		188	113	301	178	111	289	639	320			DRY	Counter Poise
				234														
	20/2	DA+00			12592		121	270	390	123	349	471	524	262			DRY	Counter Poise
				290											Cross Arm Modify			
	20/3	DB+00			12882	929.15	20	89	109	-59	41	-17	617	308			WET	Pipe
				326.82											Nallah, 11 Kv. Line, Ditch, Ditch, 440 volt Line, Brick Road			
AP21	21/0	DD+03	39°34'14"	LT	13208.82	326.82	238	131	369	286	117	403	633	317		Motinagar	DRY	Counter Poise

Proposed 132kV. D/C Transmission Line from ROKHIA to RABINDRANAGAR

Tower Schedule

Tower No.	AP No.	Location No.	Type of Tower	Angle of Deviation	Span in Metre	Cummu. Dist.(M)	Length of Section	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details	Village Name	Type of Foundation
								Left	Right	Total	Left	Right	Total					
49		21/1	DA+03			13515		175	111	287	189	109	299	536	268			DRY
50		21/2	DA+00		230	13745		119	172	291	121	169	290	583	292			DRY
51		21/3	DA+03		353	14098		181	132	313	184	124	308	640	320			DRY
52		21/4	DA+00		287	14385		155	171	327	163	194	357	558	279			DRY
53	AP22	22/0	DC+00	21°18'09" RT	270.76	14655.76	1446.94	99	248	347	76	320	396	541	271		Kulubari	DRY
54		22/1	DB+00		270.24	14926	270.24	22	49	71	-49	-2	-51	529	265			DRY
55		22/2	DA+00		259	15185		210	179	389	261	210	470	519	260			DRY
56		22/3	DB+00		260	15445	519.00	81	213	294	50	234	284	620	310			DRY
57		22/4	DA+03		360	15805		147	130	277	126	143	269	581	290			DRY
58	AP23	23/0	DD+00	46°00'52" LT	220.59	16025.59	580.59	90	-39	51	78	-130	-53	430	215			DRY
59		23/1	DB+00		209.41	16235	209.41	249	69	318	340	53	393	399	200		Kulubari	DRY
60		23/2	DA+03		190	16425		121	171	292	137	213	349	403	201			DRY

AP-22 to AP-23

Proposed 132kV. D/C Transmission Line from ROKHIA to RABINDRANAGAR

Tower No.	AP No.	Location No.	Type of Tower	Angle of Deviation	Span in Metre	Cummu. Dist.(M)	Length of Section	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details	Village Name	Type of foundation
								Left	Right	Total	Left	Right	Total					
61	AP24	24/0	DD+00	53°11'40"	212.74	16637.74	402.74	41	158	200	0	166	166	505	253	Ditch, 11 Kv. Line, Pucca Road	Moynama	DRY
62		24/1	DA+06		292.26	16930		134	168	301	126	225	351	447	224	Ditch		PS
63		24/2	DB+00		155	17085	447.26	-13	165	152	-70	132	63	588	294	220 volt Line, Kancha Road		DRY
64		24/3	DE+00		433	17518	433.00	268	76	344	301	48	348	677	339	220 volt Line-2 times, Ditch-3 times,		DRY
65		24/4	DA+03		244	17762		168	212	380	196	233	429	605	303	220 volt Line, Foot Track		DRY
66	AP25	25/0	DB+00	13°10'00"	361.02	18123.02	605.02	149	201	349	128	250	378	608	304	Foot track-2 times, Kancha Road, Ditch	Apalia	WET
67	AP26	26/0	DD+06	38°46'32"	246.69	18369.71	246.69	46	163	208	-3	237	234	337	169	Foot Track, Ditch, Pucca Road, 11 Kv. Line	Apalia	WET
68	AP27	27/0	DD+00	56°35'54"	90.41	18460.11	90.41	-72	124	52	-146	124	-22	340	170	66 Kv. S/C HT Line	Apalia	PS
69		27/1	DA+00		285	18710		125	139	264	126	136	262	535	267	Pucca Road, 11KV. Line, Embankment		WE
70		27/2	DB+00		205	18995	534.89	146	46	192	149	10	159	490	245			P
71		27/3	DA+06		275.6	19200		159	149	308	195	156	350	481	240	Graveyard, Pucca Road, 11 kv. Line, Pond-2 times	Nabadwip	W
72	AP28	28/0	DC+03	15°04'02"	LT	19475.6	480.60	127	164	291	120	145	265	665	333			

Tower Schedule  
 for 4.3 km. of power grid  
 to Belonia T/L

AP-12  
 to  
 AP-14

OWNER: T.S. S. C. I.  
 CONSULTANT: P. COLL

DETAIL SURVEY TOWER SCHEDULE

LINK: 132KV S.C (ON D.C. TOWERS)  
 RABINDRANAGAR TO BELONIA TR. LINE

TOWER NO	TOWER NO	TYPE OF TOWER	ANGLE OF DEVIATION	SPAN IN (M)	SEC LENG	CUMULV LENGTH	H/L	C.P. D	LEVEL DIFF	SUM OF ADJ. SPAN			WEIGHT SPAN IN (HOT)			WEIGHT SPAN IN (COLD)			MAJOR CROSSING DETAIL	REMARKS	GPS CO-ORDINATE	
										LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING					
1	5/0	13/0	13°36'25"LT	203	203	203	80.72	0	0.23	203	0	0	0	0	0	0	0	0	0	VILL. Katapana	91°16'33.2"	23°27'15.5"
2	6/0	13/0	29°35'18"LT	117	117	320	80.95	0	4.17	320	0	0	320	0	0	0	0	0	0	VILL. Katapana	91°16'38.5"	23°27'08.8"
3	7/0	DD+6	10°23'34"LT	169	166	489	77.12	1	18.33	286	123.15	123.15	123.15	10.903	184.1	-236.8	-72.7483	0	VILL. Katapana	91°16'42.5"	23°27'01.7"	
4	8/0	DD+18	30°57'17"RT	143	143	632	88.95	3.5	-2.06	312	281.25	165.24	386.49	405.84	128.61	532.465	0	0	VILL. Katapana	91°16'48.0"	23°27'07.1"	
5	9/0	DD+6	31°21'57"RT	338	338	971	97.29	2.5	-20.12	482	37.76	277.16	314.92	18.389	343.34	361.731	0	0	VILL. Katapana	91°16'52.2"	23°27'04.5"	
6	10/0	DD+6	12°22'51"RT	346	346	1317	74.57	0	5.25	685	61.84	145.48	207.31	-6.342	128.05	121.703	0	0	VILL. Katapana	91°16'56.2"	23°26'54.4"	
7	11/0	DD+0	21°37'03"LT	130	130	1447	88.82	3	10.21	476	201.52	-77.47	123.05	217.85	-187.7	50.2857	0	0	VILL. Katapana	91°16'58.2"	23°26'43.1"	
8	12/0	DD+0	18°47'43"RT	192	192	1447	86.25	0	-0.88	322	207.47	104.31	311.78	297.69	105.58	407.268	0	0	VILL. Katapana	91°17'01.2"	23°26'38.6"	
9	12/1	DD+0		294	286	1933	99.94	0	1.5	486	87.89	118.08	205.75	32.421	99.737	182.158	0	0	VILL. Katapana	91°17'04.3"	23°26'29.2"	
10	13/0	DD+0	31°49'51"LT	201	201		101.34	0	-2.92	451	114.54	148.26	261.2	124.061	55.72	282.807	0	0	VILL. Katapana	91°17'06.3"	23°26'24.2"	
11	13/1	DD+0		260	260		98.61	0	0.95	545	108.18	270.36	358.75	141.51	541.82	383.332	0	0	VILL. Katapana	91°17'08.3"	23°26'19.6"	
12	13/2	DD+0		271	271		92.24	0	-6.82	521	103.74	131.82	235.56	95.277	129.49	219.764	0	0	VILL. Katapana	91°17'10.3"	23°26'15.0"	
13	13/3	DD+0		374	374		93.37	0	4.13	647	153.44	109.06	262.49	32.18	91.873	223.86	0	0	VILL. Katapana	91°17'12.3"	23°26'10.4"	
14	13/4	DD+0		272	272		92.88	0	-3.48	603	132.37	132.25	264.62	119.31	186.88	366.015	0	0	VILL. Katapana	91°17'14.3"	23°26'05.8"	
15	13/5	DD+0		306	306		92.88	0	2.08	603	132.37	132.25	264.62	119.31	186.88	366.015	0	0	VILL. Katapana	91°17'16.3"	23°26'01.2"	
16	14/0	DD+9	53°44'39"LT	297	297		95.55	0	2.84	603	132.37	132.25	264.62	119.31	186.88	366.015	0	0	VILL. Katapana	91°17'18.3"	23°25'56.6"	
17	14/1	DD+9		282	282		95.43	0	-8.55	384	28.57	-2.35	26.522	-18.97	-62.56	81.4328	0	0	VILL. Katapana	91°17'20.3"	23°25'52.0"	
18	14/2	DD+9		207	207		99.79	0	0.65	346	199.05	318.03	507.64	249.56	470.06	719.619	0	0	VILL. Katapana	91°17'22.3"	23°25'47.4"	
19	14/3	DD+0		187	187		76.03	0	20.86	158	-159.63		-159.6	-311.1	-311.1	-311.1	0	0	VILL. Katapana	91°17'24.3"	23°25'42.8"	
20	15/0	DD+0	08°30'23"RT	159	159														VILL. Katapana	91°17'26.3"	23°25'38.2"	
21	16/0	DD+0	03°35'57"LT	159	159														VILL. Katapana	91°17'28.3"	23°25'33.6"	

SURVEYED/SUBMITTED BY:

CHECKED BY:

APPROVED BY:

OWNER: J.B.E.C.L.  
CONSULTANT: PCCIL

DETAIL SURVEY TOWER SCHEDULE

LINK: 122KV S.C. (ON D.C. TOWERS)  
RABINDRANAGAR TO BELONDA J.R. LINE

S.L. NO	AP NO	TOWER NO	TYPE OF TOWER	ANGLE OF DEVIATION	SPAN IN (M)	SEC. LENG.	CUMUL. LENGTH	R.L.	C.P. D.	LEVEL DIFF.	SUM OF WEIGHT SPAN IN (HOT)			SUM OF WEIGHT SPAN IN (COLD)			MAJOR CROSSING DETAIL	REMARKS	GPS CO-ORDINATE		
											LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL			EASTING	NORTHING	
22	18	18/0	DC+6	18°42'58"RT	310		78.25	0		-1.3	310	162.61	162.61	325.22	167.42	167.42	2NDOS LT Line, Pond	VILL- Indura	91°08'42.7"	23°25'58.3"	
23		18/1	DA+3		268	578	5298	79.95	0	2.49	578	147.39	117.15	264.54	142.56	106.47	249.05				
24	19	19/0	DC+6	16°8'25"RT	237		87.44	2		12.68	565	150.85	71.05	221.91	161.53	22.01	183.54				
25	20	20/0	DB+0	06°26'48"LT	224	297	5595	99.12	1	2.89	521	225.95	88.60	314.54	274.59	73.775	348.77				
26	21	21/0	DC+0	17°29'03"RT	310	224	5819	101.51	0.5	1.12	534	135.40	148.45	283.85	150.82	144.3	294.52				
27		21/1	DB+3		241		99.13	0		6.19	551	161.55	73.91	235.46	165.7	44.403	210.11				
28		21/2	DB+0		247		108.32	0		18.81	598	167.09	75.17	242.26	166.6	12.897	209.49				
29		21/3	DB+0		242		127.13	0		12.4	508	271.83	28.05	299.88	334.1	30.81	303.29				
30		21/4	DB+3		251		136.53	0		10.14	493	213.95	52.22	266.17	272.81	5.81	278.62				
31		21/5	DB+0		206		145.67	0		2.62	484	198.78	96.10	294.89	245.19	83.165	328.38				
32		21/6	DA+8		230		152.29	0		-10.74	499	136.90	206.24	343.14	149.81	252.62	402.44				
33		21/7	DB+3		222		138.55	0		-5.01	496	59.76	154.51	214.27	13.377	179.54	192.91				
34		21/8	DB+3		277		133.54	0		-10.06	507	75.49	204.38	279.87	50.464	246.1	295.56				
35		21/9	DB+0		341		126.48	0		4.57	499	72.62	73.66	146.28	30.9	50.01	80.91				
36		21/10	DB+0		216		131.05	0		4.55	0	148.34	194.70	343.05	171.59	210.03	382.02				
37		21/11	DB+0		397		126.5	0		2.15	557	146.30	89.61	235.9	130.97	77.961	208.93				
38		21/12	DA+0		302		128.59	0		-5.99	518	126.38	186.98	313.37	138.04	208.78	347.80				
39		21/13	DB+0		421		122.7	0		-5.75	699	115.02	224.77	339.78	92.236	241.41	338.65				
40		21/14	DB+0		4296		116.95	0		-29.29	818	172.23	336.71	509.93	155.58	416.63	572.21				
41	22	22/0	DB+3	07°07'45"LT	360	10115	88.66	4		781	84.29	82.19	166.48	4.3746	20.259	24.63					
42	23	23/0	DB+0	02°28'36"LT	10475	111.57	4.5	19.41		360	277.81		277.81	339.74		339.74					

AP-21  
AP-22



SURVEYED/SUBMITTED BY:

CHECKED BY:

APPROVED BY:

P.K. DUTTA & CO (P) LTD

GENERAL TOWER  
CONSTRUCTION

DETAIL SURVEY TOWER SCHEDULE

LINK SURVEY AND TOWER SCHEDULE  
MADRID/INDONESIA TO BILIRUA IN LINE

BLK NO	AP NO	TOWER NO	TYPE OF TOWER	ANGLE OF DEVIATION	SPAN IN (M)	SIG LENG	CUMULATIVE LENGTH	REL	C/P	LEVEL DIFF	SUM OF ADJ SPAN	WEIGHT LEFT	WEIGHT RIGHT	WEIGHT TOTAL	WEIGHT LEFT	WEIGHT RIGHT	WEIGHT TOTAL	MAJOR CROSSINGS	REMARKS	GPS CO-ORDINATE	
																				EASTING	NORTHING
43	26	260/0	DB+0	0°22'10"LT	321			106.37	0.5	6.34	321	124.67	124.67	249.34	101.98	101.98	203.96	Jalassy	VILL	91°22'44.7"	23°25'54.3"
44		261	DB+6		341			106.21	0	4.58	662	146.14	342.46	210.02	130.71	349.72	416.46	Jalassy	Tabbandal		
45		262	DB+6		326			110.79	0	4.75	667	194.86	189.43	384.30	210.29	206.17	416.46	VIII Road			
46		263	DB+9		353			103.04	0	7.89	679	186.57	217.05	363.61	119.83	242.72	362.55	Jalassy R/F			
47	27	270	DC+0	19°27'18"RT	172	1341	11829	105.15	1	-0.34	525	195.95	89.59	225.54	110.28	91.857	202.14	Jalassy R/F	VILL-Badur pathar	91°23'21.9"	23°25'58.7"
48		271	DB+6		340			97.81	0	-2.22	512	82.41	181.84	264.26	80.143	189.34	269.49	Metel Road R/F			
49		272	DB+3		242			98.59	0	-0.33	592	158.16	123.47	281.63	150.66	125.04	275.70	VIII Road R/F P/R/F			
50		273	DA+0		305			101.26	0	-0.67	547	118.53	186.48	275.01	116.96	159.01	275.97	P/R/F R/F			
51		274	DA+6		256	1315	13144	94.59	0	-2.12	561	148.52	143.02	291.54	145.98	152.54	298.53	Metel Road, 11KV			
52	28	280	DB+0	03°25'12"LT				98.47	0		256	112.95		112.98	103.46		103.46		VILL-Samuk Chape	91°24'16.6"	23°25'48.7"
53	41	410	DC+3	19°38'31"LT	268			100	0	16.19	368	24.41	24.41		44.98	44.98					
54	42	420	DS+3	07°51'58"LT	299	268	13412	116.69	0.5	0.24	567	243.59	148.04	391.63	312.98	147.12	450.10	Metel Road, Pond R/F	VILL-Tulambura	91°26'43.8"	23°25'37.4"
55		421	DA+6		316			113.43	0	-4.12	0	150.96	181.85	332.81	151.88	195.63	349.51	Foot Path, VIII Road R/F			
56		422	DA+3		228			112.31	0	-1.65	545	134.35	127.57	261.92	119.37	125.85	257.22	R/F			
57		423	DB+3		263			110.66	0	3.49	492	101.43	107.43	208.86	93.153	92.185	185.34	VIII Road, 11KV R/F			
58		424	DA+0		281			117.15	0	-2.24	544	155.57	154.96	310.53	170.82	164.12	334.95	R/F			
59		425	DA+3					111.91	0		281	125.04	169.79	295.83	116.88	186.44	303.33	VIII Road P/R/F			

SURVEYED/SUBMITTED BY:

CHECKED BY:

APPROVED BY:



CONSULTANT PROFILE  
 CHAMBERLAIN & ASSOCIATES

DETAILED SURVEY TOWER SCHEDULE

LINK 132KV B-C (ON P.D. TOWER) RABINDRANAGAR TO BELONIA TR. LINE

SL. NO.	AP. NO.	TOWER NO.	TYPE OF TOWER	EXIT NO.	ANGLE OF DEVIATION	SPAN IN (M)	SEC. LENG.	CUMUL. LENGTH	RL	C/P D.	LEVE L. DIFE	SUM OF ADJ. SPAN	WEIGHT SPAN IN (HOT)			WEIGHT SPAN IN (COLD)			MAJOR CROSSING DETAIL	REMARKS	GPS CO-ORDINATE		
													LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL			EASTING	NORTHING	
1	45	46/0	DB+6	6	03°09'14"RT	200			100.01	0	0.36	200	96.73	56.7348	54.667	94.66707	U/C Rail Line (Agartala to Sabrumi)	VILL-Garjee	91°29'47.7"	23°25'53.3"			
2		46/1	DB+6	6		234			100.37	0	0.44	434	103.27	113.59	105.33	111.43	216.762	BRKV					
3		46/2	DB+6	6		142			100.81	0	0.01	316	120.41	70.87	191.283	122.57	70.791	193.3623	11KV, NH-44				
4	47	47/0	DB+6	6	11°58'5"LT	210			100.82	0	0.12	352	71.13	103.96	175.091	71.209	103.31	174.5156	LT Line	VILL-Garjee	91°30'08.1"	23°25'52.1"	
5	48	48/0	DB+0	0	9°43'26"LT	139			107.94	1	0.44	349	106.04	63.76	169.794	106.69	60.122	166.8145	LT Line	VILL-Garjee	91°30'15.3"	23°25'51.1"	
6	49	49/0	DB+3	3	30°25'36"RT	139			107.88	3.5	0	0	75.24	75.60	150.841	78.876	25.635	104.5136	LT Line, Vill Road	VILL-Garjee	91°30'19.9"	23°25'54.1"	
7	50	50/0	DB+3	3	25°44'47"LT	309			119.32	1.5	13.24	309	233.40	138.17	371.572	283.36	150.63	433.9925		VILL-Garjee	91°30'30.8"	23°25'52.8"	
8		42/7	DA+6	6		263	2165	15577	108.81	0	3.02	480	145.94	152.33	298.275	166.43	165.52	332.0108	Jalasey, Vill Road				
9		42/6	DB+0	0		227			110.75	0	4.06	514	117.21	81.06	198.262	100.56	60.51	161.0657	Vill Road				
10	43	43/0	DB+0	0	4°34'47"LT	292			112.79	1	4.81	555	110.57	175.88	286.551	97.479	194.8	292.2832		VILL-Kalaban	91°28'06.5"	23°25'57.3"	
11		43/1	DB+6	6		292	584	15161	100.98	0	2.85	584	116.12	128.29	244.413	97.196	117.08	214.2788	Metal Road, 2Nos Mala				
12	44	44/0	DD+0	0	53°17'31"RT	244			111.33	1.5	3.02	536	163.71	99.55	263.253	174.52	85.33	260.2472	Metal Road	VILL-Kalaban	91°28'25.6"	23°26'04.5"	
13		44/1	DB+6	6		333	577	16738	106.85	0	-7.03	577	144.45	204.80	349.248	158.67	229.05	387.7168	2 Nos 11KV, Mala, LT Line, Metal Road	VILL-Kalaban	91°28'43.0"	23°25'54.9"	
14	45	45/0	DC+3	3	25°12'43"LT				102.82	0		333	128.20		128.204	103.95		103.9532					

Surveyed & Submitted by: 

Checked by:

Approved by:



AP-28  
AP-31

(PGCL ROUTE)

SURVEY DONE BY M/S EMC LTD

SL. NO.	TOWER NO.	SECTION LENGTH (M)	ANGLE OF DEVIATION	GPS CO-ORDINATE		REMA RKS	SL. NO.	TOWER NO.	SECTION LENGTH (M)	ANGLE OF DEVIATION	GPS CO-ORDINATE		Major Crossing	VILLAGES	REMARKS / REASON FOR CHANGE (IF ANY)
				EASTING	NORTHING						EASTING	NORTHING			
28	AP-27	1315	17°56' RT	23°25'98.7"	91°23'11.9"		28	AP-27	1315	17°56' RT	23°25'58.7"	91°23'31.9"	Mettai Road	BADURPATTHAR	SAME ROUTE
29	AP-28	668	4°14' LT	23°25'48.7"	91°24'16.6"		29	AP-28	668	4°14' LT	23°25'48.7"	91°24'16.6"	Mettai Road	SAMUKCHARA	SAME ROUTE
30	AP-29	800	10°23' RT	23°25'45.3"	91°24'39.7"		30	AP-29	800	10°23' RT	23°25'45.3"	91°24'39.7"	Mettai Road	JITENDRANAGAR	SAME ROUTE
31	AP-30	565	25°44'23" LT	23°25'36.3"	91°25'6.2"		31	AP-30	565	25°44'23" LT	23°25'36.3"	91°25'6.2"	Mettai Road	JITENDRANAGAR	SAME ROUTE
32	AP-31	310	29°41'2" RT	23°25'38.7"	91°25'25.8"		32	AP-31	310	29°41'2" RT	23°25'38.7"	91°25'25.8"		JITENDRANAGAR	SAME ROUTE
33	AP-32	225	9°22'42" LT	23°25'34.6"	91°25'35.6"		33	AP-32	225	9°22'42" LT	23°25'34.6"	91°25'35.6"		JITENDRANAGAR	SAME ROUTE
34	AP-33	425	39°41'36" LT	23°25'32.8"	91°25'43.2"		34	AP-33	425	39°41'36" LT	23°25'32.8"	91°25'43.2"		JITENDRANAGAR	SAME ROUTE
35	AP-34	280	29°23' RT	23°25'38.6"	91°25'54.9"		35	AP-34	280	29°23' RT	23°25'38.6"	91°25'54.9"		JITENDRANAGAR	SAME ROUTE
36	AP-35	220	20°54'42" RT	23°25'38.1"	91°26'05.6"		36	AP-35	220	20°54'42" RT	23°25'38.1"	91°26'05.6"		TULAMURA	SAME ROUTE
37	AP-36	190	21°49'29" LT	23°25'35"	91°26'12.7"		37	AP-36	190	21°49'29" LT	23°25'35"	91°26'12.7"		TULAMURA	SAME ROUTE
38	AP-37	200	44°57'13" LT	23°25'34.8"	91°26'19.2"		38	AP-37	200	44°57'13" LT	23°25'34.8"	91°26'19.2"		TULAMURA	SAME ROUTE
39	AP-38	210	37°11'6" RT	23°25'39.4"	91°26'24.1"		39	AP-38	210	37°11'6" RT	23°25'39.4"	91°26'24.1"		TULAMURA	SAME ROUTE
40	AP-39	155	22°52'10" RT	23°25'40.2"	91°26'31.5"		40	AP-39	155	22°52'10" RT	23°25'40.2"	91°26'31.5"		TULAMURA	SAME ROUTE
41	AP-40	225	6°36' LT	23°25'38.7"	91°26'36.5"		41	AP-40	225	6°36' LT	23°25'38.7"	91°26'36.5"		TULAMURA	SAME ROUTE
42	AP-41	268	13°52'11" LT	23°25'37.4"	91°26'43.8"		42	AP-41	268	13°52'11" LT	23°25'37.4"	91°26'43.8"		TULAMURA	SAME ROUTE
43	AP-42	2165	10°55'17" LT	23°25'38"	91°26'52.9"		43	AP-42	2165	10°55'17" LT	23°25'38"	91°26'52.9"		TULAMURA	SAME ROUTE
44	AP-43	584	5°57'39" LT	23°25'57.3"	91°28'6.5"		44	AP-43	584	5°57'39" LT	23°25'57.3"	91°28'6.5"		KOLABAN	SAME ROUTE
45	AP-44	577	49°32'28" RT	23°26'4.5"	91°28'25.6"		45	AP-44	577	49°32'28" RT	23°26'4.5"	91°28'25.6"		KOLABAN	SAME ROUTE
46	AP-45	1400	27°23'58" LT	23°25'55.407N	91°28'43.107E		46	AP-45	1400	27°23'58" LT	23°25'55.407N	91°28'43.107E		KOLABAN	SAME ROUTE
47	AP-45A	248	44°18'26" LT	23°25'53.567N	91°29'32.287E		47	AP-45A	248	44°18'26" LT	23°25'53.567N	91°29'32.287E		KOLABAN	SAME ROUTE
48	AP-45B	226	30°42'39" LT	23°25'59.027N	91°29'38.707E		48	AP-45B	226	30°42'39" LT	23°25'59.027N	91°29'38.707E		KOLABAN	SAME ROUTE
49	AP-45C	198	33°22'39" LT	23°26'6.077N	91°29'40.987E		49	AP-45C	198	33°22'39" LT	23°26'6.077N	91°29'40.987E		KOLABAN	SAME ROUTE
50	AP-45D	134	38°30'04" RT	23°26'12.227N	91°29'38.987E		50	AP-45D	134	38°30'04" RT	23°26'12.227N	91°29'38.987E		KOLABAN	SAME ROUTE
51	AP-45E	132	06°08'59" RT	23°26'16.277N	91°29'40.737E		51	AP-45E	132	06°08'59" RT	23°26'16.277N	91°29'40.737E		KOLABAN	SAME ROUTE
52	AP-45F	156	50°02'22" RT	23°26'20.087N	91°29'42.917E		52	AP-45F	156	50°02'22" RT	23°26'20.087N	91°29'42.917E		KOLABAN	SAME ROUTE
53	AP-45G	170	15°09'22" RT	23°26'21.127N	91°29'48.287E		53	AP-45G	170	15°09'22" RT	23°26'21.127N	91°29'48.287E		KOLABAN	SAME ROUTE
54	AP-45H	500	50°01'03" RT	23°26'20.827N	91°29'54.287E		54	AP-45H	500	50°01'03" RT	23°26'20.827N	91°29'54.287E		KOLABAN	SAME ROUTE

RE ALIGNMENT  
DONE FROM AP NO  
45 TO AP NO 47 ( 15  
nos NEW ANGLE  
POINT ) SINCE THE  
EARLIER AP WAS  
SPOTTED ON  
"GARZI" RAILWAY  
STATION HENCE WE  
HAVE TO DIVERTE  
THE NEW  
ALIGNMENT

*[Handwritten signature]*

Rbn  
to  
AP-5

AP-16  
to  
AP-18

Comparative Statement  
SURVEY DONE BY M/S EML LTD

SL NO	TOWER NO.	SECTION LENGTH (M)	ANGLE OF DEVIATION	GPS CO-ORDINATE		REMA BSS NO.	SL NO.	TOWER NO.	SECTION LENGTH (M)	ANGLE OF DEVIATION	GPS CO-ORDINATE		Major Crossing	VILLAGES	REMARKS / REASON FOR CHANGE (IF ANY)
				EASTING	NORTHING						EASTING	NORTHING			
1	RABINDRANAGAR	39		23 27 28.80	91 16 19.50	1	1	RABINDRANAGAR	39		23 27 28.80	91 16 19.50	06 HV X-LINE	SOVARPUR	SAME ROUTE
2	AP-1	128		25 15 41 RT	23 27 27.70	2	AP-1	128		25 15 41 RT	23 27 27.70	91 16 20.80	33 KV & 11 KV	SOVARPUR	SAME ROUTE (Tower Extension more than 9M is required)
3	AP-2	185		25 17 24 LT	23 27 24.10	3	AP-2	185		25 17 24 LT	23 27 24.10	91 16 22.80	132 KV	SOVARPUR	SAME ROUTE
4	AP-3	75		8 59 LT	23 27 20.80	4	AP-3	75		8 59 LT	23 27 20.80	91 16 27.40		SOVARPUR	SAME ROUTE
5	AP-4	216		32 18 21 RT	23 27 19.6	5	AP-4	216		32 18 21 RT	23 27 19.6	91 16 29.7		SOVARPUR	SAME ROUTE
6	AP-5	203		18 17 32 LT	23 27 13.4	6	AP-5	203		18 17 32 LT	23 27 13.4	91 16 33.3		KALAPANA	SAME ROUTE
7	AP-6	117		28 21 57 LT	23 27 7.7	7	AP-6	117		28 21 57 LT	23 27 7.7	91 16 38.6		KALAPANA	SAME ROUTE
8	AP-7	143		6 34 58 LT	23 27 7.9	8	AP-7	143		6 34 58 LT	23 27 7.9	91 16 42.3		KALAPANA	SAME ROUTE
9	AP-8	159		28 4 21 RT	23 27 7.3	9	AP-8	159		28 4 21 RT	23 27 7.3	91 16 48.4		KALAPANA	SAME ROUTE
10	AP-9	330		33 2 74 RT	23 27 4.8	10	AP-9	330		33 2 74 RT	23 27 4.8	91 16 52.6		KALAPANA	SAME ROUTE
11	AP-10	346		11 44 45 RT	23 26 54.3	11	AP-10	346		11 44 45 RT	23 26 54.3	91 16 59.9		KALAPANA	SAME ROUTE
12	AP-11	130		17 1 43 LT	23 26 43.7	12	AP-11	130		17 1 43 LT	23 26 43.7	91 16 59.1		KALAPANA	SAME ROUTE
13	AP-12	409		16 15 7 RT	23 26 38.8	13	AP-12	409		16 15 7 RT	23 26 38.8	91 17 1.4		KALAPANA	SAME ROUTE
14	AP-13	1635		34 40 17 LT	23 26 24.2	14	AP-13	1635		34 40 17 LT	23 26 24.2	91 17 04.8		MANNOPHAWK	SAME ROUTE
15	AP-14	902		52 27 49 LT	23 26 46	15	AP-14	902		52 27 49 LT	23 26 46	91 17 48.9		ALORINA	SAME ROUTE
16	AP-15	159		13 19 28 RT	23 26 52	16	AP-15	159		13 19 28 RT	23 26 52	91 18 20.1		INDURIA	SAME ROUTE
17	AP-16	231		10 3 3 LT	23 26 51.7	17	AP-16	231		10 3 3 LT	23 26 51.7	91 18 26.8		INDURIA	SAME ROUTE
18	AP-17	292		25 23 23 LT	23 25 52.7	18	AP-17	292		25 23 23 LT	23 25 52.7	91 18 33.9		INDURIA	SAME ROUTE
19	AP-18	578		14 10 22 RT	23 25 58.1	19	AP-18	578		14 10 22 RT	23 25 58.1	91 18 42.4		INDURIA	SAME ROUTE
20	AP-19	297		14 22 1 LT	23 26 14.4	20	AP-19	297		14 22 1 LT	23 26 14.4	91 19 1.5		INDURIA	SAME ROUTE
21	AP-20	224		4 58 12 LT	23 26 06.1	21	AP-20	224		4 58 12 LT	23 26 06.1	91 19 11.8		INDURIA	SAME ROUTE
22	AP-21	4286		13 51 38 RT	23 26 06.3	22	AP-21	4286		13 51 38 RT	23 26 06.3	91 19 19.5		INDURIA	SAME ROUTE
23	AP-22	360		7 10 30 LT	23 25 53.1	23	AP-22	360		7 10 30 LT	23 25 53.1	91 21 50.3		Medial Road village road	SAME ROUTE
24	AP-23	625		1 46 8 LT	23 25 53.6	24	AP-23	625		1 46 8 LT	23 25 53.6	91 22 02.9		TABANDAL	SAME ROUTE
25	AP-24	236		10 59 40 RT	23 25 54.9	25	AP-24	236		10 59 40 RT	23 25 54.9	91 22 21.3		TABANDAL	SAME ROUTE
26	AP-25	432		8 27 37 LT	23 25 50.9	26	AP-25	432		8 27 37 LT	23 25 50.9	91 22 28.5		Medial Road	SAME ROUTE
27	AP-26	1341		3 40 6 LT	23 25 54.3	27	AP-26	1341		3 40 6 LT	23 25 54.3	91 22 44.7		TABANDAL	SAME ROUTE

AP-16 to AP-18

AP-16 to AP-18


AP-16 to AP-18

**LHO OF AGARTALA (79 TILLA) - DHALABIL (KHOWAD)132 KV S/C LINE AT MOHANPUR (HEZAMARA)**  
**Detail RE-Survey Tower Schedule**

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cum. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	CO-ORDINATE		Village	
									Left	Right	Total	Left	Right	Total				NORTHING	EASTING		
1		EXISTING TOWER NO 52	DA+06		300			27.81		174.3	174.3		191.9	191.9				23°57'44.60"	91°22'44.59"		
2		EXISTING TOWER NO 51	DB+03	15°34'53"	50		300	26.162	125.7	122.8	248.4	108.1	193.4	301.5	350.0	175.0			23°57'35.10"	91°22'42.90"	
3	AP 1A	AP-1A/0	DDE+00	90°00'00"	20	350	350	26.05	-72.8	5.3	-67.5	-143.4	1.9	-141.6	70.0	35.0			23°57'37.70"	91°22'42.09"	
4	AP 1	AP-1/0	DD+00	21°57'27"	L	20	370	26.11	14.7		14.7	18.1		18.1				23°57'33.97"	91°22'41.45"		

FOR EMC LIMITED

FOR PGCL

<b>PREPARED BY</b>	<b>SUBMITTED</b>	<b>CHECKED BY</b>	<b>RECOMMENDED BY</b>	<b>APPROVED BY</b>
	 <b>JAYDIP NATH</b> PROJECT MANAGER			

*15/11/2016*


LHO OF AGARTALA (79 TILLA) - DHALABU (KHOWAI) 132 KV S/C LINE AT MOHANPUR (HEZAMARA)

Detail RE-Survey Tower Schedule

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cummu. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	NORTHING	EASTING	Village
									Left	Right	Total	Left	Right	Total						
1	EXISTING TOWER NO 49	EXISTING TOWER NO 49	DC+06		349			36.084	209.1	209.1	209.1	234.1	234.1				11KV Line, Metal Road	23°57'16.08"	91°22'32.21"	
2		EXISTING TOWER NO 50	DA+03	00°41'00"	252		349	31.402	139.9	178.1	318.0	114.9	215.7	330.6	601.0	300.5	Mud Road	23°57'26.40"	91°22'37.90"	
3	AP 1A	AP-1A/0	DDE+00	90°00'00"	20	601	601	26.05	73.9	5.3	79.2	36.3	1.9	38.2	272.0	136.0		23°57'37.70"	91°22'42.09"	
4	AP 1	AP-1/0	DD+00	21°57'27"	L	20	621	26.11	14.7		14.7	18.1		18.1				23°57'33.97"	91°22'41.45"	

FOR EMC LIMITED

FOR PGCL

PREPARED BY  
  
 PROJECT MANAGER  
 ESRP/ITER/RY D

CHECKED BY

RECOMMENDED BY

APPROVED BY

7/11/2016

LHO OF AGARTALA (79 TILLA) - DHALABIL (KHOWAI)132 KV S/C LINE AT MOHANPUR (HEZAMARA)

Detail RE-Survey Tower Schedule

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cum. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	CO-ORDINATE		Village Name
									Left	Right	Total	Left	Right	Total				NORTHING	EASTING	
1	1A	1A/0	DD+00	90°00'00"	20			26.05	5.3	5.3		1.9	1.9				23°57'37.70"	91°22'42.09"		
2	1	1/0	DD+00	21°57'27"	375	20	20	26.11	14.7	146.5	161.2	18.1	116.8	134.9	395.0	197.5		23°57'33.97"	91°22'41.45"	
3	2	2/0	DC+09	17°53'14"	360	375	395	26.91	228.5	194.8	423.4	258.2	205.6	463.8	735.0	367.5		23°57'33.90"	91°22'28.00"	
4	3	3/0	DD+06	56°34'42"	252	360	755	26.51	165.2	151.8	316.9	154.4	170.4	324.9	612.0	306.0		23°57'42.27"	91°22'15.75"	
5	4	4/0	DD+00	59°8'54"	155	252	1007	28.374	100.2	39.7	139.9	81.6	12.4	93.9	407.0	203.5		23°57'37.70"	91°22'09.26"	
6	5	5/0	DDE+00	14°17'18"	62	155	1162	32.105	115.3	72.9	188.2	142.6	103.1	245.7	217.0	108.5		23°57'42.76"	91°22'10.53"	
7	GAN	GANT	DD+00	07°23'51"		62	1224	30.453										23°57'44.51"	91°22'41.45"	

FOR EMC LIMITED

FOR PGCL

<p>PREPARED BY</p> <p><i>Tanmay</i></p> <p>PROJECT MANAGER SUBMITTED BY E.M.C. LIMITED</p>	<p>CHECKED BY</p> <p><i>JADIP NATH</i></p>	<p>RECOMMENDED BY</p>	<p>APPROVED BY</p>
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## POLE SUMMARY

### POLE SUMMARY DETAILS

TRIPURA STATE ASSOCIATED WITH NER POWER SYSTEM IMPROVEMENT PROJECT (DMS PACKAGE-03)

TRI-DMS-03 (3604) CC-CS/86-NER/REW-2986/1/G2/NOA-1/7168 & 7169 Date: 22.02.2017

LINE LINK: EXISTING 132/33 kV GOKULNAGAR S/S TO PROPOSED 33/11 kV DURGANAGAR S/S

TOTAL LINE LENGTH: 7.023 km

S.No.	Type of Pole	Extension	Pole Qty	12 m Pole	14 m Pole	16 m Pole	Remarks
1	SP (GA-01)	0 m	37	37			
2		2 m	1		1		
3		4 m	1			1	
4	SP (GA-02)	0 m	32	32			
5		2 m	5		5		
6		4 m	8			8	
7	DP (GA-03)	0 m	58	116			
8		2 m	7		14		
9		4 m	16			32	
10	FP (GA-04)	0 m	6	24			
11		2 m	1		4		
12		4 m	4			16	
<b>TOTAL</b>				<b>211</b>	<b>24</b>	<b>57</b>	<b>= 290 Nos.</b>



SUBMITTED BY:  
*(Signature)*

*Akhil Chakona*  
DET, Udaipur

CHECKED BY:

*(Signature)*  
22/02/17

M. K. NAG  
MANAGER  
POWERGRID  
NER, UDAIPUR

APPROVED BY:

PGCIL

PGCIL

TechnoFab Engineering Ltd.

Sl. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. of mtr.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
1	AP-1	1	FP+4		00°00'00"	43	43	43	NH-44 11 KV LINE (2 Nos) LT line	GOKULNAGAR S/S	23°42'32.49"	91°15'49.00"	Hold
2	AP-2	2	FP+4		74°57'48"LT	34	34	77		GOKULNAGAR	23°42'32.74"	91°15'47.52"	
3	AP-3	3	SP+0		06°02'42"RT	44	44	121		GOKULNAGAR	23°42'31.72"	91°15'47.00"	
4	AP-4	4	SP+4		09°37'01"LT	45	45	166	35 KV LINE	GOKULNAGAR	23°42'30.51"	91°15'46.21"	Hold
5	AP-5	5	DP+0		33°29'47"LT	45	45	179		GOKULNAGAR	23°42'29.07"	91°15'45.59"	
6		LOC-5/1	SP+0			45	45	179		GOKULNAGAR			
7		LOC-5/2	SP+0			45	45	179	GOKULNAGAR			Hold	
8		LOC-5/3	SP+0			44	44	345	GOKULNAGAR				
9	AP-6	6	DP+0		12°27'19"LT	45	45	380	GOKULNAGAR	23°42'23.37"	91°15'46.90"		
10	AP-7	7	SP+4		05°15'54"LT	42	42	128	MRD, 11 KV LINE	GOKULNAGAR	23°42'22.04"	91°15'47.55"	Hold
11		LOC-7/1	SP+4			42	42	128		GOKULNAGAR			
12		LOC-7/2	SP+0			44	44	518		GOKULNAGAR			
13	AP-8	8	DP+0		09°34'25"LT	38	38	76	400 KV TL	GOKULNAGAR	23°42'18.43"	91°15'49.79"	Hold
14		LOC-8/1	SP+0			38	38	76		GOKULNAGAR			
15	AP-9	9	SP+0		02°47'14"RT	45	45	594		GOKULNAGAR	23°42'16.53"	91°15'51.47"	
16		LOC-9/1	SP+0			45	45	684	VRD	GOKULNAGAR			Hold
17	AP-10	10	FP+4		68°39'33"RT	35	35	684		GOKULNAGAR	23°42'14.11"	91°15'53.41"	
18		LOC-10/1	SP+0			45	45	684		GOKULNAGAR			
19		LOC-10/2	SP+0			42	42	245	GOKULNAGAR			Hold	
20		LOC-10/3	DP+0			42	42	245	GOKULNAGAR				
21		LOC-10/4	SP+0			41	41	245	GOKULNAGAR				
22		LOC-10/5	SP+0			40	40	245	GOKULNAGAR			Hold	
23	AP-11	11	DP+0		15°16'59"LT	45	45	929	GOKULNAGAR	23°42'7.43"	91°15'48.84"		
24		LOC-11/1	SP+0			45	45	929	GOKULNAGAR				
25	AP-12	12	FP+0		76°40'01"RT	40	40	1019	POND	GOKULNAGAR	23°42'4.66"	91°15'47.92"	Hold
26	AP-13	13	FP+0		77°42'07"LT	49	49	1059		GOKULNAGAR	23°42'4.74"	91°15'46.51"	
27	AP-14	14	DP+0		19°31'55"RT	46	46	1108		GOKULNAGAR	23°42'3.20"	91°15'46.04"	
28	AP-15	15	DP+0		50°08'20"LT	37	37	1154	POND POND ROAD, LT LINE	GOKULNAGAR	23°42'1.99"	91°15'45.1"	Hold
29	AP-16	16	DP+0		14°02'10"RT	40	40	1191		GOKULNAGAR	23°42'0.828"	91°15'45.43"	
30	AP-17	17	DP+2		25°01'01"RT	45	45	1231		GOKULNAGAR	23°41'59.52"	91°15'45.45"	
31	AP-18	18	DP+0		23°38'12"LT	42	42	1276	NALA	GOKULNAGAR	23°41'58.05"	91°15'44.73"	Hold
32		LOC-18/1	SP+0			42	42	1276		GOKULNAGAR			
33	AP-19	19	SP+0		03°01'01"LT	35	35	1360		GOKULNAGAR	23°41'55.35"	91°15'44.59"	
34	AP-20	20	SP+0		00°20'05"RT	44	44	1395	POND	GOKULNAGAR	23°41'54.22"	91°15'44.74"	Hold
35	AP-21	21	DP+0		11°04'44"LT	42	42	1439		GOKULNAGAR	23°41'52.79"	91°15'44.8"	
36	AP-22	22	DP+0		26°51'04"RT	32	32	1481		GOKULNAGAR	23°41'51.46"	91°15'45.13"	
37	AP-23	23	DP+0		23°18'44"LT	45	45	1513	POND	GOKULNAGAR	23°41'50.45"	91°15'44.87"	Hold
38	AP-24	24	DP+0		13°16'03"LT	35	35	1558		GOKULNAGAR	23°41'46.99"	91°15'45.13"	
39	AP-25	25	DP+0		11°58'05"RT	45	45	1593		GOKULNAGAR	23°41'47.95"	91°15'45.6"	
40	AP-26	26	SP+0		11°59'05"LT	41	41	1638	POND	GOKULNAGAR	23°41'46.14"	91°15'45.98"	Hold
41	AP-27	27	DP+0		01°19'56"LT	47	47	1679		GOKULNAGAR	23°41'44.87"	91°15'46.42"	
42	AP-28	28	SP+0		00°25'51"RT	42	42	1726		GOKULNAGAR	23°41'43.42"	91°15'46.97"	
43	AP-29	29	SP+0		06°56'23"LT	47	47	1768	POND	GOKULNAGAR	23°41'42.12"	91°15'47.45"	Hold
44	AP-30	30	DP+0		02°12'21"LT	44	44	1815		GOKULNAGAR	23°41'40.73"	91°15'48.17"	
45	AP-31	31	SP+0		01°44'31"RT	44	44	1859		GOKULNAGAR	23°41'39.47"	91°15'48.89"	
46	AP-32	32	SP+0		04°39'39"LT	44	44	1903	MRD, 11 KV, LT LINE	GOKULNAGAR	23°41'38.18"	91°15'49.58"	Hold
47	AP-33	33	DP+4		41°04'20"RT	37	37	1947		GOKULNAGAR	23°41'36.95"	91°15'50.37"	
48	AP-34	34	FP+0		06°54'06"RT	28	28	1984		GOKULNAGAR	23°41'35.78"	91°15'50.14"	
49			DP+0		26°53'46"LT	27	27	2013	LT LINE	GOKULNAGAR	23°41'35.58"	91°15'49.16"	Hold
50													



Arhit Chakma  
DET, Udaipur

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उ.पू.क्ष. उदयपुर / NER, UDAIPUR

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. of mtr.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
50	AP-36	36	SP+2		03°04'53"RT	36		2040		GOKULNAGAR	23°41'35.01"	91°15'48.42"	Hold
51	AP-37	37	SP+4		04°40'21"LT	15	15	2078	MRD, 11 KV LINE	GOKULNAGAR	23°41'34.32"	91°15'47.41"	
52	AP-38	38	DP+0		21°04'42"RT	30		2124			23°41'33.3"	91°15'46.15"	
53	AP-39	39	DP+0		18°13'18"RT	40		2154			23°41'32.96"	91°15'45.17"	
54	AP-40	40	SP+0		06°51'54"LT	45		2194			23°41'32.91"	91°15'43.76"	
55	AP-41	41	DP+0		18°32'17"LT	45		2239			23°41'32.67"	91°15'42.06"	
56		LOC-41/1	SP+0			44							
57		LOC-41/2	SP+0			44	133						
58	AP-42	42	SP+0		04°44'24"RT	44		2372			23°41'30.8"	91°15'37.82"	
59	AP-43	43	DP+0		17°18'09"RT	41		2416	MRD		23°41'30.3"	91°15'36.38"	Hold
60	AP-44	44	DP+0		11°40'39"LT	32		2457			23°41'30.21"	91°15'34.93"	
61	AP-45	45	DP+0		24°11'22"LT	45		2489			23°41'29.94"	91°15'33.84"	
62	AP-46	46	SP+0		04°30'00"RT	34		2534			23°41'29.02"	91°15'32.62"	
63	AP-47	47	DP+0		20°25'24"RT	45		2568	MRD	CENTRAL JAIL	23°41'28.39"	91°15'31.64"	Hold
64	AP-48	48	DP+0		22°01'03"LT	31		2613		CENTRAL JAIL	23°41'28.01"	91°15'30.05"	
65	AP-49	49	DP+0		24°26'38"RT	31		2644		CENTRAL JAIL	23°41'27.42"	91°15'29.18"	
66	AP-50	50	GP+0		01°00'18"RT	45		2675		CENTRAL JAIL	23°41'27.21"	91°15'28.12"	
67	AP-51	51	SP+0		04°51'52"RT	42		2720	MRD	CENTRAL JAIL	23°41'26.93"	91°15'26.57"	Hold
68	AP-52	52	DP+0		17°23'36"LT	41		2762		CENTRAL JAIL	23°41'26.79"	91°15'25.09"	
69	AP-53	53	SP+0		05°18'29"RT	40		2803		CENTRAL JAIL	23°41'26.25"	91°15'23.76"	
70	AP-54	54	DP+0		30°17'24"LT	43		2843	MRD	CENTRAL JAIL	23°41'25.85"	91°15'22.42"	Hold
71	AP-55	55	DP+0		41°23'19"LT	36		2886		CENTRAL JAIL	23°41'24.8"	91°15'21.41"	
72		LOC-55/1	SP+0			36	72						
73	AP-56	56	FP+0		72°25'18"RT	44		2958	MRD		23°41'22.45"	91°15'21.41"	Hold
74		LOC-56/1	SP+0			44							
75		LOC-56/2	SP+0			44							
76		LOC-56/3	DP+0			44	263						
77		LOC-56/4	SP+0			44							
78		LOC-56/5	SP+0			43							
79	AP-57	57	SP+0		07°47'04"LT	38		3221			23°41'19.86"	91°15'12.55"	
80	AP-58	58	DP+0		24°35'12"LT	42		3259			23°41'19.35"	91°15'11.32"	
81		LOC-58/1	SP+0			42	127						
82		LOC-58/2	SP+0			43							
83	AP-59	59	DP+0		35°37'05"LT	40		3386	ROAD		23°41'16.2"	91°15'8.436"	Hold
84		LOC-59/1	SP+0			38							
85		LOC-59/2	SP+0			43	159						
86		LOC-59/3	SP+0			38							
87	AP-60	60	FP+0		72°38'06"RT	48		3545	ROAD		23°41'11.22"	91°15'8.008"	Hold
88		LOC-60/1	SP+0			48	96						
89	AP-61	61	DP+0		34°18'55"LT	28		3641	ROAD, 11 KV, LT LINE		23°41'10.53"	91°15'4.735"	Hold
90	AP-62	62	FP+4		85°42'56"LT	43		3669			23°41'9.878"	91°15'4.073"	
91		LOC-62/1	SP+0			43	86						
92	AP-63	63	SP+0		01°02'04"LT	43		3755			23°41'7.821"	91°15'6.147"	
93	AP-64	64	SP+0		02°05'01"RT	50		3798			23°41'6.793"	91°15'7.185"	
94	AP-65	65	DP+0		06°24'59"RT	36		3848	ROAD, LT LINE		23°41'5.57"	91°15'8.33"	
95	AP-66	66	DP+2		28°07'04"RT	41		3884	ROAD		23°41'4.603"	91°15'9.049"	
96	AP-67	67	SP+0		07°37'44"LT	42		3925	LT LINE		23°41'3.272"	91°15'9.208"	Hold
97		LOC-67/1	SP+2			41	83		LT LINE				
98		LOC-67/2	SP+2		09°30'35"RT	31		4008	MRD, 11 KV, LT LINE		23°41'0.647"	91°15'9.914"	



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प्रबंधक / MANAGER  
पावरग्रिड / POWERGRID  
उ.पू.से., उदयपुर / NER, UDAIPUR



SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. of mtr.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
99	AP-69	69	DP+2		22°32'40"RT			4039			23°40'59.64"	91°15'9.998"	
100	AP-70	70	DP+0		21°30'58"LT	42	42	4081	MRD, 11 KV, LT LINE		23°40'58.3"	91°15'9.521"	Hold
101	AP-71	71	SP+2		02°31'53"LT	43	43	4124	LT LINE		23°40'56.9"	91°15'9.611"	
102	AP-72	72	SP+0		05°14'35"LT	33	33	4157			23°40'55.83"	91°15'9.31"	
103	AP-73	73	DP+4		40°00'10"LT	39	39	4196	MRD, 11 KV LINE		23°40'54.6"	91°15'9.994"	Hold
104	AP-74	74	DP+0		11°46'50"RT	30	30	4226	MRD, CABLE		23°40'53.99"	91°15'10.81"	PROBHAVPUR
105	AP-75	75	DP+4		14°30'51"RT	45	45	4271			23°40'52.86"	91°15'11.81"	PROBHAVPUR
106	AP-76	76	DP+0		34°13'07"LT	32	32	4303	ROAD, 11 KV, LT LINE		23°40'51.92"	91°15'12.28"	PROBHAVPUR
107	AP-77	77	SP+0		07°51'54"LT	34	34	4337			23°40'51.35"	91°15'13.32"	PROBHAVPUR
108	AP-78	78	DP+4		30°57'50"RT	30	30	4367	ROAD, 11 KV, LT LINE		23°40'50.97"	91°15'14.27"	PROBHAVPUR
109	AP-79	79	DP+0		13°52'17"LT	42	42	4409	ROAD		23°40'49.46"	91°15'15.46"	PROBHAVPUR
110	AP-80	80	DP+0		13°33'01"RT	41	41	4450			23°40'48.59"	91°15'16.56"	PROBHAVPUR
111	AP-81	81	SP+4		00°24'10"RT	45	45	4485			23°40'47.37"	91°15'17.53"	PROBHAVPUR
112	AP-82	82	DP+0		11°09'13"LT	37	37	4532	11 KV LINE		23°40'46.4"	91°15'18.29"	PROBHAVPUR
113		LOC-82/1	SP+0			35			ROAD				PROBHAVPUR
114	AP-83	83	DP+0		09°16'33"RT	35	70						PROBHAVPUR
115	AP-84	84	SP+4		06°24'16"RT	30	30	4602			23°40'44.83"	91°15'20.11"	PROBHAVPUR
116		LOC-84/1	SP+0			39		4632	11 KV LINE		23°40'44.06"	91°15'20.75"	PROBHAVPUR
117	AP-85	85	SP+2		02°04'21"RT	39	78						PROBHAVPUR
118	AP-86	86	DP+2		14°33'42"LT	42	42	4710	11 KV LINE		23°40'41.86"	91°15'22.2"	PROBHAVPUR
119	AP-87	87	SP+0		05°48'28"RT	40	40	4752			23°40'40.67"	91°15'22.92"	PROBHAVPUR
120	AP-88	88	DP+0		13°02'52"LT	41	41	4792			23°40'39.74"	91°15'23.88"	PROBHAVPUR
121	AP-89	89	DP+2		40°16'05"RT	38	38	4833			23°40'38.67"	91°15'24.78"	PROBHAVPUR
122	AP-90	90	SP+4		05°40'00"LT	41	41	4872	ROAD, LT LINE		23°40'37.87"	91°15'25.85"	PROBHAVPUR
123	AP-91	91	SP+0		09°05'03"LT	45	45	4913	11 KV LINE		23°40'36.58"	91°15'26.11"	PROBHAVPUR
124	AP-92	92	DP+4		20°50'08"RT	41	41	4958	ROAD, 11 KV LINE		23°40'35.18"	91°15'26.55"	PROBHAVPUR
125	AP-93	93	SP+0		02°03'17"RT	31	31	4999			23°40'33.99"	91°15'27.17"	PROBHAVPUR
126	AP-94	94	DP+4		10°11'06"LT	35	35	5030			23°40'32.98"	91°15'27.25"	PROBHAVPUR
127	AP-95	95	DP+0		11°00'44"LT	44	44	5065	ROAD, 11 KV LINE		23°40'31.84"	91°15'27.3"	PROBHAVPUR
128	AP-96	96	DP+0		46°50'36"LT	41	41	5109	LT LINE		23°40'30.45"	91°15'27.64"	PROBHAVPUR
129	AP-97	97	DP+0		14°09'11"LT	29	29	5150			23°40'29.22"	91°15'28.22"	PROBHAVPUR
130	AP-98	98	FP+2		75°41'59"RT	37	37	5179	MRD, 11 KV LINE		23°40'28.91"	91°15'29.18"	PROBHAVPUR
131	AP-99	99	SP+0		05°32'28"LT	28	28	5216	MRD, 11 KV LINE		23°40'28.79"	91°15'30.49"	PROBHAVPUR
132	AP-100	100	DP+0		19°50'29"RT	38	38	5244			23°40'27.88"	91°15'30.64"	PROBHAVPUR
133	AP-101	101	DP+0		37°21'40"RT	37	37	5282			23°40'26.68"	91°15'30.97"	PROBHAVPUR
134	AP-102	102	DP+4		42°22'58"RT	28	28	5318	MRD 11 KV, LT LINE		23°40'25.48"	91°15'30.85"	AKHAY CHOWMANI
135	AP-103	103	SP+2		04°34'01"LT	28	28	5347	MRD, 11 KV, LT LINE		23°40'24.82"	91°15'30.19"	AKHAY CHOWMANI
136	AP-104	104	DP+0		20°53'10"LT	45	45	5375	LT LINE		23°40'24.74"	91°15'29.2"	AKHAY CHOWMANI
137	AP-105	105	SP+4		02°19'38"LT	34	34	5420	11 KV LINE		23°40'24.5"	91°15'27.58"	AKHAY CHOWMANI
138	AP-106	106	DP+0		13°36'56"LT	44	44	5454	11KV LINE		23°40'23.93"	91°15'26.53"	AKHAY CHOWMANI
139		LOC-106/1	SP+0			42		5498			23°40'23.17"	91°15'25.23"	AKHAY CHOWMANI
140	AP-107	107	DP+4		17°57'13"LT	42	84		MRD, 11 KV LINE				AKHAY CHOWMANI
141	AP-108	108	DP+4		30°02'00"LT	38	38	5582			23°40'21.2"	91°15'23.18"	AKHAY CHOWMANI
142	AP-109	109	SP+0		08°47'46"LT	33	33	5620	MRD, 11 KV LINE	RATANGARH	23°40'20.09"	91°15'22.59"	AKHAY CHOWMANI
143	AP-110	110	DP+0		12°15'53"RT	45	45	5653			23°40'19.31"	91°15'22.67"	AKHAY CHOWMANI
144	AP-111	111	SP+4		05°02'33"RT	29	29	5698	ROAD, 11 KV LINE		23°40'17.52"	91°15'23.05"	AKHAY CHOWMANI
145	AP-112	112	SP+0		02°15'48"RT	34	34	5727			23°40'16.58"	91°15'21.06"	AKHAY CHOWMANI
146	AP-113	113	DP+2		28°24'03"RT	39	39	5761	LT LINE		23°40'15.47"	91°15'22.97"	AKHAY CHOWMANI
						39	39	5800			23°40'14.21"	91°15'22.81"	AKHAY CHOWMANI
						32	32	5830			23°40'13.16"	91°15'22.01"	AKHAY CHOWMANI



*Signature*  
Date: 02/09/17

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DET, Udaipur

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प्रबंधक / MANAGER  
पावरग्रिड / POWERGRID  
उ.पू.के., उदयपुर / NER, UP

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. of mtr.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
148	AP-115	115	DP+0		14°55'38"LT	42		5871			23°40'12.37"	91°15'21.28"	AKHAY CHOWMANI
149		LOC-115/1	SP+0			42	84						AKHAY CHOWMANI
150	AP-116	116	DP+2		14°26'38"RT	41		5955	LT LINE		23°40'9.92"	91°15'20.01"	AKHAY CHOWMANI
151		LOC-116/1	SP+0			41	123						AKHAY CHOWMANI
152		LOC-116/2	SP+0			41							AKHAY CHOWMANI
153	AP-117	117	SP+0		07°00'45"LT	32		6078	MRD, 11 KV LINE		23°40'6.865"	91°15'17.22"	AKHAY CHOWMANI
154	AP-118	118	DP+4		18°26'06"RT	34	32	6110			23°40'5.98"	91°15'16.6"	AKHAY CHOWMANI
155		LOC-118/1	SP+0			34	68						AKHAY CHOWMANI
156	AP-119	119	DP+4		10°06'59"RT	43	43	6178	MRD, 11 KV LINE		23°40'4.594"	91°15'14.71"	AKHAY CHOWMANI
157	AP-120	120	DP+4		57°57'08"LT	40	40	6221	MRD, 11 KV LINE		23°40'3.929"	91°15'13.38"	AKHAY CHOWMANI
158	AP-121	121	DP+0		18°56'19"RT	44	44	6261	MRD, 11 KV LINE		23°40'2.627"	91°15'13.29"	AKHAY CHOWMANI
159	AP-122	122	DP+4		17°54'35"RT	28	28	6305	MRD, 11 KV LINE		23°40'1.32"	91°15'12.67"	AKHAY CHOWMANI
160	AP-123	123	SP+0		07°32'54"RT	43	43	6333	ROAD		23°40'0.63"	91°15'12.01"	AKHAY CHOWMANI
161	AP-124	124	DP+0		24°47'24"RT	19	19	6376	ROAD		23°39'59.7"	91°15'10.86"	AKHAY CHOWMANI
162	AP-125	125	DP+0		34°27'47"RT	45		6395		BISHALGARH BARI	23°39'59.53"	91°15'10.23"	AKHAY CHOWMANI
163		LOC-125/1	DP+4			42			DMRD, LT				PROBHAVPUR
164		LOC-125/2	SP+0			42	212						PROBHAVPUR
165		LOC-125/3	SP+0			42							PROBHAVPUR
166		LOC-125/4	SP+0			41							PROBHAVPUR
167	AP-126	126	DP+0		02°04'50"LT	34	34	6607	DMRD, 11 KV, LT LINE		23°40'1.731"	91°15'3.003"	PROBHAVPUR
168	AP-127	127	DP+4		38°23'58"LT	41	41	6641			23°40'2.043"	91°15'1.835"	PROBHAVPUR
169	AP-128	128	DP+0		15°34'33"LT	45	45	6682			23°40'1.54"	91°15'0.5"	PROBHAVPUR
170	AP-129	129	DP+0		12°43'38"LT	42	42	6727			23°40'0.615"	91°14'59.2"	PROBHAVPUR
171	AP-130	130	DP+0		40°22'54"RT	43	43	6769			23°39'59.56"	91°14'58.26"	PROBHAVPUR
172	AP-131	131	SP+0		09°27'44"RT	43	43	6812			23°39'59.32"	91°14'56.78"	PROBHAVPUR
173		LOC-131/1	SP+0			43	86						PROBHAVPUR
174	AP-132	132	DP+4		19°58'59"LT	35	35	6898	DMRD, 11 KV, LT LINE	DURGANAGAR	23°39'59.28"	91°14'53.75"	PROBHAVPUR
175	AP-133	133	SP+0		07°53'18"RT	43	43	6933			23°39'58.88"	91°14'52.59"	PROBHAVPUR
176	AP-134	134	FP+0		00°00'00"			5976		DURGANAGAR S/S	23°39'58.57"	91°14'51.11"	

Pole schedule with normal height (+0m) which are within the permissible span and which are within the permissible angles of deviation are approved. All crossing pole with extensions, pole where individual span has crossed the max. limit are put on hold. Details profile to be submitted for the above crossing & violations. All Tech. may be estimated accordingly.

*(Signature)*  
(S.I. Sh.)



*(Signature)*  
Basel

Akhil Chakma  
DET, Udaipur

*(Signature)*  
M. K. NAG  
प्रबंधक / MANAGER  
पावरग्रिड / POWERGRID  
उ.पू.सं., उदयपुर / NER, UDAIPUR  
APPROVED BY

# POLE SUMMARY

POLE SUMMARY DETAILS									
TRIPURA STATE ASSOCIATED WITH NER POWER SYSTEM IMPROVEMENT PROJECT (DMS PACKAGE-03)									
TRI-DMS-03 (3604) CC-CS/86-NER/REW-2986/1/G2/NOA-I/7168 & 7169 Date: 22.02.2017									
LINE LINK: EXISTING 33/11 KV KATHALIA S/S TO PROPOSED 33/11 KV NIDAYA S/S									
TOTAL LINE LENGTH: 9.488 km									
S.No.	Type of Pole	Extension	Pole Qty	12 m Pole	14 m Pole	16 m Pole	Remarks		
1	SP (GA-01)	0 m	66	66					
2		2 m	1		1				
3		4 m	8			8			
4	SP (GA-02)	0 m	41	41					
5		2 m	2		2				
6		4 m	9			9			
7	DP (GA-03)	0 m	77	154					
8		2 m	6		12				
9		4 m	33			66			
10	FP (GA-04)	0 m	6	24					
11		2 m	0		0				
12		4 m	3			12			
	<b>TOTAL</b>			<b>285</b>	<b>15</b>	<b>95</b>			


  
 SUBMITTED BY: *[Signature]*  
 TechnoFab Engineering Ltd.

*Akhil Chakraborty*  
 DEPT. CHIEF  
 CHECKED BY:  
 PGCIL

एम के शांति / M. K. NAG  
 SYSTEMS MANAGER  
 पावर ग्रिड / POWER GRID  
 APPROVED BY:  
 उ.पू.के., उदयपुर / NER, PGCIL

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (mtr.)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
1	AP-1	1	FP+0		00°00'00"	10	10	10		KATHALIA S/S	23°22'15.74"	91°19'10.23"	
2	AP-2	2	FP+0		89°34'09"RT	21	21	31		KATHALIA	23°22'15.64"	91°19'9.87"	Hold
3	AP-3	3	SP+0		00°54'34"LT	45	45	76	11 KV BRICK ROAD	KATHALIA	23°22'16.32"	91°19'9.76"	
4	AP-4	4	DP+4	4	43°32'53"RT	39	39	115		KATHALIA	23°22'17.75"	91°19'9.50"	
5	AP-5	5	SP+0		09°44'00"LT	26	26	144		KATHALIA	23°22'18.8"	91°19'10.26"	
6	AP-6	6	DP+4	4	13°48'16"LT	32	32	176	11 KV	KATHALIA	23°22'19.65"	91°19'10.67"	Hold
7	AP-7	7	FP+4	4	56°31'02"RT	28	28	204	11 KV BRICK ROAD, DMRD	KATHALIA	23°22'20.66"	91°19'10.87"	
8	AP-8	8	FP+0		84°33'35"RT	39	39	243		KATHALIA	23°22'20.87"	91°19'11.82"	
9	AP-9	9	SP+0		07°02'52"LT	33	33	276	11 KV	KATHALIA	23°22'19.67"	91°19'12.25"	Hold
10	AP-10	10	DP+4	4	25°01'01"RT	20	20	296	20KV 11 KV DMRD	KATHALIA	23°22'18.7"	91°19'12.76"	
11	AP-11	11	DP+4	4	36°24'15"LT	41	41			KATHALIA	23°22'18.05"	91°19'12.77"	
12		LOC-11/1	SP+0			41			LT LINE	KATHALIA			Hold
13		LOC-11/2	SP+2			41	123			KATHALIA			
14	AP-12	12	SP+0		08°19'54"RT	34	34	419		KATHALIA	23°22'14.86"	91°19'15.38"	Hold
15	AP-13	13	DP+4	4	40°24'42"RT	33	33	453	11 KV	KATHALIA	23°22'13.89"	91°19'15.95"	Hold
16	AP-14	14	SP+0		05°18'40"RT	46	46	486	11 KV	KATHALIA	23°22'12.85"	91°19'15.72"	Hold
17	AP-15	15	DP+0		21°38'28"LT	43	43	532		KATHALIA	23°22'11.41"	91°19'15.25"	
18	AP-16	16	SP+0		07°59'07"LT	33	33	575		KATHALIA	23°22'10.01"	91°19'15.37"	
19		LOC-16/1	SP+0			34	67			KATHALIA			
20	AP-17	17	DP+0		08°09'43"RT	45	45	642	11 KV	KATHALIA	23°22'7.87"	91°19'15.89"	Hold
21	AP-18	18	SP+4	4	04°43'00"LT	40	40	687	11 KV	KATHALIA	23°22'6.41"	91°19'16.01"	
22	AP-19	19	SP+0		08°01'35"LT	39	39	727		KATHALIA	23°22'5.18"	91°19'16.24"	
23	AP-20	20	DP+0		10°00'29"LT	49	49	766		KATHALIA	23°22'3.92"	91°19'16.64"	Hold
24	AP-21	21	DP+2	2	04°00'51"LT	26	26	815	LT LINE	KATHALIA	23°22'2.48"	91°19'17.44"	
25	AP-22	22	SP+0		07°22'50"RT	23	23	841		KATHALIA	23°22'1.78"	91°19'17.9"	
26	AP-23	23	DP+0		16°17'15"RT	33	33	864		KATHALIA	23°22'1.10"	91°19'18.23"	
27	AP-24	24	DP+4	4	25°26'10"LT	36	36	897	11 KV, LT LINE, ROAD	KATHALIA	23°22'0.037"	91°19'18.38"	Hold
28	AP-25	25	SP+0		03°26'18"RT	38	38	933		KATHALIA	23°21'59.06"	91°19'19.06"	
29		LOC-25/1	SP+0			38	76			KATHALIA			
30	AP-26	26	DP+4	4	20°59'24"LT	25	25	1009	11 KV, ROAD	KATHALIA	23°21'56.9"	91°19'20.39"	Hold
31	AP-27	27	FP+0		74°34'33"RT	41	41	1034		KATHALIA	23°21'56.39"	91°19'21.07"	
32	AP-28	28	SP+0		05°42'23"LT	34	34	1075		KATHALIA	23°21'55.18"	91°19'20.49"	Hold
33	AP-29	29	DP+4	4	20°49'05"LT	31	31	1109	11KV, ROAD	KATHALIA	23°21'54.13"	91°19'20.11"	
34	AP-30	30	DP+4	4	19°57'14"LT	22	22	1140	2ND 11KV, LT LINE	KATHALIA	23°21'53.13"	91°19'20.16"	
35	AP-31	31	DP+4	4	59°06'30"LT	41	41	1162	LT, 11 KV, ROAD	KATHALIA	23°21'52.48"	91°19'20.45"	
36		LOC-31/1	SP+0			41	127			KATHALIA			
37		LOC-31/2	SP+4	4		45			LT LINE	KATHALIA			Hold
38	AP-32	32	DP+0		03°00'16"RT	36	36	1289		KATHALIA	23°21'51.88"	91°19'24.96"	
39		LOC-32/1	SP+0			36	72			KATHALIA			
40	AP-33	33	DP+0		11°36'28"RT	45	45	1361		KATHALIA	23°21'51.42"	91°19'27.33"	
41	AP-34	34	DP+0		18°45'50"RT	40	40	1406		KATHALIA	23°21'50.85"	91°19'28.78"	
42		LOC-34/1	SP+0			40	80		ROAD	KATHALIA			Hold
43	AP-35	35	DP+4	4	14°17'16"LT	32	32	1486	11 KV, DMRD	KATHALIA	23°21'49.11"	91°19'30.88"	
44	AP-36	36	DP+2	2	11°35'51"RT	41	52	1518	LT LINE, ROAD	KATHALIA	23°21'48.64"	91°19'31.87"	
45		LOC-36/1	SP+0			42				SINDIKAT BAZER			
46		LOC-36/2	SP+0			42				SINDIKAT BAZER			
47		LOC-36/3	DP+2			42	249			SINDIKAT BAZER			
48		LOC-36/4	SP+0			42				SINDIKAT BAZER			
49		LOC-36/5	SP+0			40				SINDIKAT BAZER			
50	AP-37	37	DP+2	2	17°12'00"RT	24	24	1767	ROAD	SINDIKAT BAZER	23°21'43.54"	91°19'38.66"	Hold
51	AP-38	38	SP+4	4	02°03'36"RT	41	41	1781	DMRD	SINDIKAT BAZER	23°21'42.9"	91°19'39.13"	
52	AP-39	39	SP+0		01°23'09"RT	43	43	1832	11 KV	KATHALIA BAZER	23°21'41.77"	91°19'39.88"	
53	AP-40	40	DP+4	4	36°27'35"LT	30	30	1875		KATHALIA BAZER	23°21'40.57"	91°19'40.63"	
54	AP-41	41	DP+0		40°45'35"RT	40	40	1905	11 KV, DMRD	KATHALIA BAZER	23°21'40.19"	91°19'41.59"	



Submitted by: *[Signature]*

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उ.पु.अ., उदयपुर / NER, UDAIPUR

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (intr.)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE (WGS-84)		REMARKS
											NORTHING	EASTING	
55	AP-42	42	DP+0		28°08'24"RT	30		1945	11 KV, DMRD	KATHALIA BAZER	23°21'39.03"	91°19'42.2"	Hold
56	AP-43	43	DP+4	4	41°57'23"LT	31		1965		KATHALIA BAZER	23°21'38.38"	91°19'42.18"	
57		LOC-43/1	SP+0			31				KATHALIA BAZER			
58	AP-44	44	DP+0		40°36'05"LT	22		2027	11 KV, DMRD	KATHALIA BAZER	23°21'36.83"	91°19'43.57"	} Hold
59	AP-45	45	DP+4	4	84°53'22"RT	22		2049	11KV, DMRD	KATHALIA BAZER	23°21'36.71"	91°19'44.35"	
60	AP-46	46	DP+L		30°39'28"LT	22		2071	11 KV	KATHALIA BAZER	23°21'35.99"	91°19'44.28"	
61	AP-47	47	DP+4	4	12°24'42"LT	47		2118	11KV, LT, DMRD	KATHALIA BAZER	23°21'34.64"	91°19'45"	
62	AP-48	48	DP+4	4	32°33'38"RT	43		2141		KATHALIA BAZER	23°21'34.06"	91°19'45.51"	
63	AP-48	48	SP+0		05°18'52"RT	43		2184		KATHALIA BAZER	23°21'32.66"	91°19'45.66"	
64	AP-49	49	SP+0		08°19'32"RT	43		2227		KATHALIA BAZER	23°21'31.26"	91°19'45.68"	
65	AP-50	50	SP+0		08°19'32"RT	41		2268		SOUTH MOHASHPUR	23°21'29.93"	91°19'45.49"	
66	AP-51	51	DP+0		11°25'16"RT	41		2508		SOUTH MOHASHPUR	23°21'28.65"	91°19'45.01"	
67	AP-52	52	SP+2	2	03°38'18"RT	40		2349	ROAD, LT, CABLE	SOUTH MOHASHPUR	23°21'27.45"	91°19'44.46"	} Hold
68	AP-53	53	SP+0		02°04'02"LT	44		2393	11 KV	SOUTH MOHASHPUR	23°21'26.11"	91°19'43.91"	
69	AP-54	54	SP+4	4	07°44'12"RT	31		2424	DMRD	SOUTH MOHASHPUR	23°21'25.22"	91°19'43.4"	
70	AP-55	55	DP+2	2	12°44'27"LT	43			LT LINE	SOUTH MOHASHPUR			
71		LOC-55/1	SP+0			43		2510	LT LINE	SOUTH MOHASHPUR			
72	AP-56	56	DP+0		22°20'45"RT	26		2536	LT SIDE ROAD	SOUTH MOHASHPUR	23°21'22.55"	91°19'42.59"	
73	AP-57	57	DP+0		14°22'49"LT	38				SOUTH MOHASHPUR	23°21'21.89"	91°19'42.03"	
74		LOC-57/1	SP+0			42				SOUTH MOHASHPUR			
75		LOC-57/2	SP+0			42		202		SOUTH MOHASHPUR			
76		LOC-57/3	SP+0			42				SOUTH MOHASHPUR			
77		LOC-57/4	DP+0			38				SOUTH MOHASHPUR			
78	AP-58	58	SP+0		02°36'33"LT	42		2738	LT LINE	SOUTH MOHASHPUR	24°21'15.88"	91°19'39.18"	} Hold
79		LOC-58/1	SP+0			42			ROAD	SOUTH MOHASHPUR			
80		LOC-58/2	SP+0			42		162		SOUTH MOHASHPUR			
81		LOC-58/3	SP+0			38				SOUTH MOHASHPUR			
82	AP-59	59	DP+4	4	40°45'50"LT	28		2800	11 KV	SOUTH MOHASHPUR	23°21'10.95"	91°19'37.13"	} Hold
83	AP-60	60	DP+4	4	15°01'16"LT	37		2828	LT ROAD	SOUTH MOHASHPUR	23°21'10.11"	91°19'37.46"	
84	AP-61	61	DP+0		19°00'56"LT	45		2985		SOUTH MOHASHPUR	23°21'9.11"	91°19'36.71"	
85	AP-62	62	DP+4	4	12°11'35"LT	41		3010		SOUTH MOHASHPUR	23°21'8.24"	91°19'39.49"	} Hold
86	AP-63	63	DP+0		11°52'58"RT	37		3051	11 KV, DMRD	SOUTH MOHASHPUR	23°21'7.71"	91°19'40.8"	} Hold
87		LOC-63/1	SP+4	4		37				SOUTH MOHASHPUR			
88		LOC-63/2	SP+4	4		37			RIVER	SOUTH MOHASHPUR			
89	AP-64	64	SP+0		02°24'00"LT	34		3192		SOUTH MOHASHPUR	23°21'5.59"	91°19'43.96"	
90	AP-65	65	DP+0		49°30'00"RT	27		3196	11 KV, DMRD	SOUTH MOHASHPUR	23°21'4.99"	91°19'44.05"	} Hold
91	AP-66	66	DP+4	4	21°02'15"RT	39		3223	11 KV	SOUTH MOHASHPUR	23°21'4.11"	91°19'45.07"	
92		LOC-66/1	SP+4	4		44		127	LT LINE	SOUTH MOHASHPUR			
93		LOC-66/2	SP+0			44			ROAD	SOUTH MOHASHPUR			
94	AP-67	67	DP+4	4	29°37'43"LT	31		3350	LT LINE	SOUTH MOHASHPUR	23°21'0.13"	91°19'43.98"	
95	AP-68	68	SP+0		32°36'24"RT	41		3381		SOUTH MOHASHPUR	23°20'59.16"	91°19'44.79"	
96		LOC-68/1	SP+0			40		122		SOUTH MOHASHPUR			
97		LOC-68/2	SP+0			41				SOUTH MOHASHPUR			
98	AP-69	69	DP+0		12°10'29"RT	41		3503	11 KV	SOUTH MOHASHPUR	23°20'55.3"	91°19'45.25"	Hold
99	AP-70	70	DP+0		10°42'47"RT	38		3544		SOUTH MOHASHPUR	23°20'53.97"	91°19'45.27"	
100	AP-71	71	DP+0		22°01'23"LT	25		3582	DMRD, 11 KV	SOUTH MOHASHPUR	23°20'52.76"	91°19'45.04"	Hold
101	AP-72	72	SP+0		00°43'21"RT	36		3607		SOUTH MOHASHPUR	23°20'51.95"	91°19'45.22"	
102		LOC-72/1	SP+0			36				SOUTH MOHASHPUR			
103		LOC-72/2	SP+0			37			11 KV	SOUTH MOHASHPUR			Hold
104	AP-73	73	SP+0		30°43'21"LT	25		3716		SOUTH MOHASHPUR	23°20'48.48"	91°19'45.97"	
105	AP-74	74	DP+0		07°07'30"LT	38		3741	11 KV LINE	SOUTH MOHASHPUR	23°20'47.67"	91°19'46.16"	} Hold
106	AP-75	75	SP+0		02°29'22"RT	44		3779		SOUTH MOHASHPUR	23°20'46.51"	91°19'46.59"	
107	AP-76	76	DP+0		10°42'59"LT	43		3820		SOUTH MOHASHPUR	23°20'45.15"	91°19'47.03"	
108		LOC-76/1	SP+0			45				SOUTH MOHASHPUR			
109		LOC-76/2	SP+0			45				SOUTH MOHASHPUR			
110		LOC-76/3	DP+0			45		265		SOUTH MOHASHPUR			



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (mtr.)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
110		LOC-76/4	SP+0			45				SOUTH MOHASHPUR			
111		LOC-76/5	SP+4	4		45				SOUTH MOHASHPUR			Hold
112	AP-77	77	DP+U		18°53'02"LT	42		4088	11 KV	SOUTH MOHASHPUR	23°20'37.49"	91°19'51.32"	
113		LOC-77/1	SP+0			37				SOUTH MOHASHPUR			
114	AP-78	78	DP+0		34°45'41"RT	37		4162		SOUTH MOHASHPUR	23°20'35.82"	91°19'53.21"	
115		LOC-78/1	SP+0			43				SOUTH MOHASHPUR			
116	AP-79	79	DP+0		28°49'56"RT	43		4248		SOUTH MOHASHPUR			
117		LOC-79/1	SP+0			48			DMRD	SOUTH MOHASHPUR			Hold
118	AP-80	80	DP+0		39°32'57"LT	44		4342		SOUTH MOHASHPUR	23°20'33.09"	91°19'53.8"	
119		LOC-80/1	SP+0			44				SOUTH MOHASHPUR			
120		LOC-80/2	SP+U			44				SOUTH MOHASHPUR			
121		LOC-80/3	SP+0			45				SOUTH MOHASHPUR			
122	AP-81	81	DP+0		23°29'55"LT	33		4519	DMRD	SOUTH MOHASHPUR	23°20'30.19"	91°19'52.82"	Hold
123	AP-82	82	DP+0		13°17'55"RT	40		4552		SOUTH MOHASHPUR	23°20'24.85"	91°19'55.17"	
124	AP-83	83	DP+U		18°22'37"RT	39		4592		SOUTH MOHASHPUR	23°20'24.11"	91°19'55.99"	
125	AP-84	84	SP+0		06°26'02"LT	45		4631		SOUTH MOHASHPUR	23°20'23.01"	91°19'56.75"	
126		LOC-84/1	SP+0			45				SOUTH MOHASHPUR			
127		LOC-84/2	SP+U			45				SOUTH MOHASHPUR			
128		LOC-84/3	DP+0			45				SOUTH MOHASHPUR			
129		LOC-84/4	SP+0			44				SOUTH MOHASHPUR			
130	AP-85	85	SP+0		06°14'17"RT	30		4855		GHARAM GUHA	23°20'21.78"	91°19'57.08"	
131	AP-86	86	DP+0		38°20'44"RT	43		4885		GHARAM GUHA	23°20'14.95"	91°19'58.84"	
132	AP-87	87	DP+0		38°20'44"LT	41		4928		GHARAM GUHA	23°20'14.01"	91°20'0.101"	
133		LOC-87/1	SP+0			41				GHARAM GUHA			
134	AP-88	88	SP+0		03°49'39"RT	45		5010		GHARAM GUHA	23°20'12.74"	91°19'59.48"	
135		LOC-88/1	SP+0			45				GHARAM GUHA			
136	AP-89	89	DP+0		05°02'51"RT	30		5100	DMRD	GHARAM GUHA	23°20'10.16"	91°19'58.81"	Hold
137	AP-90	90	DP+U		40°23'50"LT	44		5130	11 KV ROAD	GHARAM GUHA	23°20'7.36"	91°19'57.86"	
138		LOC-90/1	SP+4	4		44				GHARAM GUHA			
139	AP-91	91	SP+0		02°05'28"LT	42		5216		GHARAM GUHA	23°20'6.44"	91°19'57.45"	
140	AP-92	92	DP+0		38°44'46"LT	41		5260	11 KV	GHARAM GUHA	23°20'3.72"	91°19'58.39"	Hold
141	AP-93	93	SP+4	4	00°33'54"LT	43		5301		GHARAM GUHA	23°20'7.42"	91°19'58.9"	
142		LOC-93/1	SP+0			43				GHARAM GUHA			
143	AP-94	94	SP+0		04°27'23"LT	41		5387	DMRD	GHARAM GUHA	23°20'1.76"	91°20'0.14"	Hold
144	AP-95	95	DP+4	4	28°16'48"RT	44		5428	11 KV BRICK RD	GHARAM GUHA	23°20'0.358"	91°20'2.80"	
145	AP-96	96	DP+0		17°37'31"RT	42		5472		GHARAM GUHA	23°19'59.78"	91°20'4.11"	
146		LOC-96/1	SP+0			42				GHARAM GUHA			
147	AP-97	97	SP+0		04°01'44"LT	43		5556		GHARAM GUHA	23°19'58.62"	91°20'5.011"	
148		LOC-97/1	SP+0			43				GHARAM GUHA			
149	AP-98	98	DP+0		16°15'26"LT	40		5642		GHARAM GUHA	23°19'56"	91°20'5.92"	
150		LOC-98/1	SP+0			40				GHARAM GUHA			
151	AP-99	99	DP+0		31°14'06"RT	46		5722		GHARAM GUHA	23°19'53.41"	91°20'7.04"	Hold
152	AP-100	100	SP+0		08°49'22"RT	44		5766		GHARAM GUHA	23°19'51.35"	91°20'8.79"	
153	AP-101	101	DP+0		30°01'00"RT	30		5812	11 KV	GHARAM GUHA	23°19'49.85"	91°20'8.99"	Hold
154	AP-102	102	SP+4	4	00°49'14"RT	42		5842		GHARAM GUHA	23°19'48.42"	91°20'8.94"	
155		LOC-102/1	SP+0			42				GHARAM GUHA			
156		LOC-102/2	SP+0			43			DMRD	GHARAM GUHA			Hold
157	AP-103	103	DP+U		39°17'45"LT	39		5869		GHARAM GUHA	23°19'47.6"	91°20'8.38"	
158	AP-104	104	DP+4	4	13°47'52"LT	37		5908	11 KV	GHARAM GUHA	23°19'44.13"	91°20'5.96"	Hold
159		LOC-104/1	SP+0			37				GHARAM GUHA			
160	AP-105	105	SP+4	4	00°41'00"RT	34		5982	11 KV	GHAKAM GUHA	23°19'42.87"	91°20'6.12"	Hold
161	AP-106	106	SP+0		08°02'39"RT	41		6116		GHARAM GUHA	23°19'40.6"	91°20'7.03"	
162	AP-107	107	DP+0		08°06'49"RT	40		6157		GHARAM GUHA	23°19'39.56"	91°20'7.43"	
163		LOC-107/1	SP+0			38				NIDAYA			



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उ.पू.क्ष., उददपुर / *NER, UDAIPUR*

SL NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (mtr.)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
164		LOC-107/2	SP+0							NIDAYA			
165		LOC-107/3	SP+4	4		39	153			NIDAYA			
166	AP-108	108	DP+0		31°33'27"RT	40		6315	11 KV. DMRO	NIDAYA			Hold
167		LOC-108/1	SP+0			44				NIDAYA	23°19'38.27"	91°20'7.69"	
168	AP-109	109	SP+0		01°26'39"LT	44	88			NIDAYA			
169	AP-110	110	SP+4	4	06°08'18"RT	44	44	6403		NIDAYA	23°19'33.13"	91°20'7.93"	
170	AP-111	111	DP+0		21°02'47"LT	42	42	6447	11 KV. DMRO	NIDAYA	23°19'30.61"	91°20'6.43"	Hold
171	AP-112	112	DP+0		22°27'50"LT	43	43	6489		NIDAYA	23°19'29.34"	91°20'5.69"	
172		LOC-112/1	SP+0			40		6532		NIDAYA	23°19'28.19"	91°20'4.86"	
173		LOC-112/2	SP+0			40	121			NIDAYA			
174	AP-113	113	DP+4	4	47°26'20"RT	41		6553	11 KV. DMRO	NIDAYA			
175	AP-114	114	DP+0		31°18'34"RT	31	31	6684	11 KV	NIDAYA	23°19'26.82"	91°20'4.52"	Hold
176	AP-115	115	DP+4	4	41°29'54"LT	29	29	6713	LT. ROAD	NIDAYA	23°19'22.96"	91°20'5.24"	
177	AP-116	116	DP+0		19°51'11"LT	32	32	6745	11 KV	NIDAYA	23°19'22.17"	91°20'4.58"	
178		LOC-116/1	SP+0			41				NIDAYA	23°19'21.84"	91°20'3.64"	
179	AP-117	117	DP+4	4	47°59'03"RT	41	82	6827	11 KV. DMRO	NIDAYA			Hold
180		LOC-117/1	SP+0			43			LT LINE	NIDAYA	23°19'20.92"	91°20'3.122"	
181	AP-118	118	SP+0		00°28'11"LT	43	86	6913		NIDAYA			
182	AP-119	119	DP+4	4	49°03'05"LT	34	34	6947	11 KV. DMRO	NIDAYA	23°19'18.25"	91°20'2.73"	Hold
183	AP-120	120	SP+0		01°49'38"RT	42	42	6989	11 KV	NIDAYA	23°19'16.67"	91°20'0.22"	
184	AP-121	121	SP+0		04°18'37"RT	33	33	7027		NIDAYA	23°19'15.04"	91°19'59.24"	
185		LOC-121/1	SP+0			31	62			NIDAYA	23°19'14.67"	91°19'59.08"	
186	AP-122	122	DP+4	4	65°28'55"RT	40		7084	LT. DMRO	NIDAYA			Hold
187	AP-123	123	SP+0		01°06'03"RT	41	40	7124	LT, 11 KV. DMRO	NIDAYA	23°19'13.6"	91°19'58.91"	
188		LOC-123/1	SP+0			41	82		CABLE	NIDAYA	23°19'11.61"	91°19'58.45"	
189	AP-124	124	DP+0		18°28'06"LT	43		7206		NIDAYA	23°19'11.33"	91°19'57.08"	
190	AP-125	125	DP+0		17°17'33"LT	43	43	7249	LT LINE	NIDAYA	23°19'10.82"	91°19'54.23"	Hold
191	AP-126	126	DP+4	4	51°43'29"LT	33	33	7282	LT LINE	NIDAYA	23°19'10.12"	91°19'52.9"	
192	AP-127	127	DP+0		51°43'29"RT	43	45	7325	LT. DMRO	NIDAYA	23°19'9.33"	91°19'52.1"	
193	AP-128	128	DP+0		57°34'06"RT	31	31	7356		NIDAYA	23°19'9.94"	91°19'52.33"	Hold
194		LOC-128/1	SP+0			32	64		DMRO	NIDAYA			
195	AP-129	129	DP+0		26°29'53"LT	32		7420		NIDAYA			
196	AP-130	130	DP+4	4	32°57'24"LT	18	18	7438	LT LINE	NIDAYA	23°19'6.99"	91°19'51.96"	Hold
197	AP-131	131	DP+0		10°57'12"LT	40	40	7478	LT LINE	NIDAYA	23°19'6.54"	91°19'49.74"	
198		LOC-131/1	SP+0			41			LT. ROAD	NIDAYA	23°19'6.18"	91°19'49.26"	
199		LOC-131/2	SP+0			41	123			NIDAYA			



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (mtr.)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
200	AP-132	132	SP+0		02°46'48"RT	38		7601		NIDAYA	23°19'4.94"	91°19'48.81"	
201	AP-133	133	DP+0		07°30'43"RT	43		7639		NIDAYA	23°19'0.97"	91°19'48.27"	
202		LOC-133/1	SP+0			43	86			NIDAYA			
203	AP-134	134	DP+0		13°22'57"RT	31		7726		NIDAYA	23°18'59.76"	91°19'48.03"	Hold
204	AP-135	135	SP+2	2	07°29'11"RT	41		7756	LT LINE	NIDAYA	23°18'57.09"	91°19'47.12"	
205	AP-136	136	DP+0		10°48'19"RT	41		7797		NIDAYA	23°18'56.23"	91°19'46.56"	
206	AP-137	137	DP+0		13°32'09"RT	50	50	7847		NIDAYA	23°18'55.18"	91°19'45.66"	Hold
207	AP-138	138	FP+0		77°28'16"LT	42	42	7889	ROAD	NIDAYA	23°18'54.13"	91°19'44.34"	
208		LOC-138/1	SP+4	4		33	66		LT, 11 KV, DMRD	NIDAYA			
209	AP-139	139	DP+0		13°03'42"LT	33		7955		NIDAYA	23°18'53.5"	91°19'43.01"	Hold
210	AP-140	140	SP+4	4	08°12'39"RT	42	42	7997	11 KV	NIDAYA	23°18'52.42"	91°19'43.6"	Hold
211	AP-141	141	DP+0	0	51°16'58"LT	34	34	8031	11 KV, ROAD	NIDAYA	23°18'50.73"	91°19'44.26"	
212	AP-142	142	SP+0	0	02°03'16"RT	41	41	8072		NIDAYA	23°18'49.19"	91°19'44.68"	
213		LOC-142/1	SP+0	0		38	76			NIDAYA			
214	AP-143	143	DP+0	0	41°14'29"LT	38		8146		NIDAYA	23°18'48.75"	91°19'46.06"	Hold
215	AP-144	144	DP+4	4	46°59'34"RT	18	18	8166	ROAD, LT, 11 KV	NIDAYA	23°18'47.87"	91°19'48.53"	Hold
216	AP-145	145	DP+0	0	42°27'51"RT	25	25	8192	LT	NIDAYA	23°18'48.07"	91°19'49.13"	
217	AP-146	146	DP+0	0	52°53'18"RT	35	35	8227		NIDAYA	23°18'48.07"	91°19'49.13"	
218	AP-147	147	DP+4	4	43°26'40"LT	20	20	8247	11 KV, LT, DMRD	NIDAYA	23°18'47.69"	91°19'49.34"	Hold
219	AP-148	148	DP+0	0	10°01'01"LT	44	44	8291	LT LINE	NIDAYA	23°18'46.62"	91°19'50.38"	
220	AP-149	149	SP+2	2	00°16'47"RT	43	43	8334	LT LINE	NIDAYA	23°18'46.06"	91°19'50"	
221		LOC-149/1	SP+0	0		45			MARK	NIDAYA	23°18'44.67"	91°19'50.3"	
222		LOC-149/2	DP+0	0		45				NIDAYA			
223		LOC-149/3	SP+0	0		45	224			NIDAYA			
224		LOC-149/4	SP+0	0		44				NIDAYA			
225						45				NIDAYA			
226	AP-150	150	DP+0	0	48°10'33"LT	30		8558		NIDAYA	23°18'43.37"	91°19'50.84"	Hold
227	AP-151	151	DP+2	2	11°59'07"LT	30	30	8598	DMRD, 11 KV	NIDAYA	23°18'36.58"	91°19'53.67"	
228	AP-152	152	DP+4	4	43°26'43"RT	30	30	8518		NIDAYA	23°18'36.58"	91°19'53.67"	
229		LOC-152/1	SP+0	0		33	96		ROAD, 11 KV	NIDAYA	23°18'36.23"	91°19'54.66"	Hold
230	AP-153	153	DP+0	0	28°25'37"RT	33		8684		NIDAYA	23°18'36.08"	91°19'55.72"	
231	AP-154	154	DP+0	0	46°36'52"RT	33	33	8717		NIDAYA	23°18'36.08"	91°19'55.72"	Hold
232	AP-155	155	FP+0	0	58°45'59"RT	41	41	8758	ROAD	NIDAYA	23°18'34.37"	91°19'57.15"	
233	AP-156	156	DP+0	0	21°25'56"RT	22	22	8780		NIDAYA	23°18'33.3"	91°19'57.34"	
234	AP-157	157	SP+0	0	00°44'02"RT	39	39	8819		NIDAYA	23°18'32.25"	91°19'56.47"	DOUBLE CIRCUIT
235	AP-158	158	DP+0	0	20°22'57"LT	38	38	8857		NIDAYA	23°18'32.34"	91°19'55.7"	DOUBLE CIRCUIT
236		LOC-158/1	SP+0	0		36	109			NIDAYA	23°18'32.94"	91°19'54.49"	DOUBLE CIRCUIT
237		LOC-158/2	SP+0	0		36				NIDAYA			DOUBLE CIRCUIT
238	AP-159	159	SP+4	4	03°50'19"LT	37		8996		NIDAYA			DOUBLE CIRCUIT
239	AP-160	160	DP+0	0	20°33'22"RT	30	30	8996		NIDAYA	23°18'33.55"	91°19'53.32"	DOUBLE CIRCUIT
240		LOC-160/1	SP+0	0		43				NIDAYA	23°18'34.09"	91°19'49.55"	DOUBLE CIRCUIT
241	AP-161	161	SP+0	0	05°53'08"RT	43	86	9082		NIDAYA			DOUBLE CIRCUIT
242	AP-162	162	SP+0	0	02°08'04"RT	41	41	9123		NIDAYA	23°18'34.18"	91°19'48.49"	DOUBLE CIRCUIT
243	AP-163	163	DP+0	0	13°09'44"LT	27	27	9150		NIDAYA	23°18'35.39"	91°19'45.77"	DOUBLE CIRCUIT
244	AP-164	164	DP+0	0	22°47'40"RT	47	47	9197		NIDAYA	23°18'35.09"	91°19'44.53"	DOUBLE CIRCUIT
245	AP-165	165	DP+4	4	52°26'46"LT	37	37	9234		NIDAYA	23°18'36.57"	91°19'43.75"	DOUBLE CIRCUIT
246	AP-166	166	DP+0	0	13°44'22"LT	27	27	9261		NIDAYA	23°18'36.57"	91°19'43.75"	DOUBLE CIRCUIT
247	AP-167	167	DP+0	0	19°28'02"LT	29	29	9290		NIDAYA	23°18'37.1"	91°19'42.19"	DOUBLE CIRCUIT
248	AP-168	168	DP+0	0	37°56'32"RT	36	36	9326		NIDAYA	23°18'37.94"	91°19'41.23"	DOUBLE CIRCUIT
249	AP-169	169	SP+0	0	04°06'32"LT	31	31	9357		NIDAYA	23°18'37.8"	91°19'40.28"	DOUBLE CIRCUIT
250		LOC-169/1	SP+0	0		37	74			NIDAYA	23°18'37.43"	91°19'39.34"	DOUBLE CIRCUIT
251	AP-170	170	SP+0	0	00°19'48"LT	37		9431		NIDAYA	23°18'36.64"	91°19'38.4"	DOUBLE CIRCUIT
252	AP-171	171	DP+0	0	54°58'40"RT	35	35	9466		NIDAYA	23°18'36.56"	91°19'37.31"	DOUBLE CIRCUIT
253	AP-172	172	FP+0	0	00°00'00"	42	22	9488		NIDAYA	23°18'36.21"	91°19'34.74"	DOUBLE CIRCUIT
254										NIDAYA S/S	23°18'36.55"	91°19'32.98"	DOUBLE CIRCUIT



Submitted by *Technofab*

Akhil Chakma  
SET, Udaipur

एम.के.नाग / M. K. NAG  
प्रबंधक / MANAGER  
पावरग्रिड / POWERGRID  
उ.पू.क्षे., उदयपुर / NER, UDAIPUR



# POLE SUMMARY

## POLE SUMMARY DETAILS

TRIPURA STATE ASSOCIATED WITH NER POWER SYSTEM IMPROVEMENT PROJECT (DMS PACKAGE-03)

TRI-DMS-03 (3604) CC-CS/86-NER/REW-2986/1/G2/NOA-1/7168 & 7169 Date: 22.02.2017

LINE LINK: EXISTING 33/11 KV RAJNAGAR S/S TO PROPOSED 33/11 KV NIDAYA S/S

TOTAL LINE LENGTH: 17.339 km

S.No.	Type of Pole	Extension	Pole Qty	12 m Pole	14 m Pole	16 m Pole	Remarks
1	SP (GA-01)	0 m	123	123			
2		2 m	0		0		
3		4 m	11			11	
4	SP (GA-02)	0 m	76	76			
5		2 m	2		2		
6		4 m	19			19	
7	DP (GA-03)	0 m	129	258			
8		2 m	1		2		
9		4 m	59			118	
10	FP (GA-04)	0 m	6	24			
11		2 m	0		0		
12		4 m	2			8	
<b>TOTAL</b>				<b>481</b>	<b>4</b>	<b>156</b>	



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 Yogesh Kumar Darjee  
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*Priyanshu*  
 Priyanshu Srivastav  
 P. S. O. / A. E. T.  
 CHECKED BY  
 RAJNAGAR / RABINDRANAGAR  
 PGCIL

*[Signature]*  
 APPROVED BY:  
 RAJNAGAR / Dept. Manager  
 PGCIL  
 RABINDRANAGAR  
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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMMLTY. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
1	BAY	BAY	FP+0	0	00°00'00"					Rainagar	23°13'56.73"	91°23'5.651"	
2	AP-1	1	DP+0	0	33°06'41"RT	16	16	16	LT LINE	Rainagar	23°13'56.14"	91°23'5.694"	
3	AP-2	2	DP+0	0	16°00'28"RT	38	38	54		Rainagar	23°13'55.06"	91°23'5.038"	
4	AP-3	3	DP+0	0	17°29'45"RT	43	43	97		Rainagar	23°13'54.07"	91°23'3.96"	
5	AP-4	4	DP+0	0	32°24'16"RT	31	31	128		Rainagar	23°13'53.61"	91°23'2.98"	
6		LOC-4/1	SP+0	0		43							
7	AP-5	5	SP+0	0	06°02'57"RT	45	88						
8	AP-6	6	DP+0	0	12°45'24"LT	40	40	216		Rainagar	23°13'53.87"	91°22'59.88"	
9		LOC-6/1	SP+0	0		30		256	VRD	Rainagar	23°13'54.12"	91°22'58.54"	
10	AP-7	7	FP+0	0	69°35'43"LT	36	66						
11		LOC-7/1	SP+0	0		33		322	VRD	Rainagar	23°13'54.06"	91°22'56.22"	
12	AP-8	8	DP+0	0	18°06'16"LT	33	66						
13	AP-9	9	SP+0	0	04°57'30"RT	40	40	388		Rainagar	23°13'52.04"	91°22'55.47"	
14		LOC-9/1	SP+0	0		44		428		Rainagar	23°13'50.74"	91°22'55.45"	
15		LOC-9/2	SP+0	0		45	125						
16	AP-10	10	DP+0	0	13°53'31"RT	36		563					
17	AP-11	11	DP+0	0	25°23'29"RT	45	45	598	LT LINE		23°13'46.67"	91°22'55"	
18		LOC-11/1	SP+0	0		45					23°13'45.17"	91°22'54.42"	
19		LOC-11/2	SP+0	0		45	120		11 KV LINE,VRD,FOOT PATH				
20	AP-12	12	SP+0	0	02°33'07"LT	30		718					
21		LOC-12/1	SP+0	0		45			VRD	Guirangapur	23°13'42.4"	91°22'51.43"	
22	AP-13	13	DP+0	C	21°34'52"LT	41	86	804		Guirangapur	23°13'40.34"	91°22'49.38"	
			DP+0	0	10°03'59"RT	41	41	845	MRD,11KV	Guirangapur	23°13'39.09"	91°22'48.87"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
24	AP-15	15	DP+0	0	31°49'39"RT	45	45	890	LT LINE	Gurangopur	23°13'37.82"	91°22'48.04"	
25	AP-16	16	DP+0	0	24°07'42"RT	25	25	915	MRD, 11KV	Gurangopur	23°13'37.45"	91°22'47.27"	
26	AP-17	17	SP+0	0	05°55'45"LT	45	45	960	LT LINE	Gurangopur	23°13'37.37"	91°22'45.62"	
27	AP-18	18	SP+0	0	07°46'42"LT	38	38	998	11 KV LINE	Gurangopur	23°13'37.2"	91°22'44.42"	
28	AP-19	19	DP+0	0	10°25'15"LT	40	40	1038	11 KV LINE	Gurangopur	23°13'36.82"	91°22'43.09"	
29		LOC-19/1	SP+0	0			74			Gurangopur			
30	AP-20	20	SP+0	0	02°09'40"RT			1112		Gurangopur	23°13'35.73"	91°22'40.78"	
31		LOC-20/1	SP+0	0						Gurangopur			
32		LOC-20/2	SP+0	0			119						
33	AP-21	21	DP+0	0	18°05'00"LT			1231			23°13'34.1"	91°22'37"	
34	AP-22	22	SP+0	0	06°39'33"RT	37	37	1268			23°13'32.61"	91°22'35.09"	
35	AP-23	23	DP+0	0	14°58'26"RT	34	34	1302			23°13'32.61"	91°22'35.09"	
36	AP-24	24	DP+0	0	12°03'03"LT	45	45	1347			23°13'32.08"	91°22'33.62"	
37	AP-25	25	SP+0	0	08°36'02"RT	40	40	1387			23°13'31.35"	91°22'32.43"	
38	AP-26	26	SP+0	0	03°53'41"RT	34	34	1421	BRICK ROAD		23°13'30.88"	91°22'31.34"	
39	AP-27	27	DP+0	0	14°28'08"RT	45	45	1466	NALA		23°13'30.35"	91°22'29.84"	
40		LOC-27/1	SP+0	0			86						
41	AP-28	28	DP+0	0	15°00'50"RT	41			11 KV VRD				
42	AP-29	29	DP+0	0	13°26'24"RT	45	45	1562			23°13'30.02"	91°22'26.82"	
43	AP-30	30	SP+0	0	06°55'40"RT	31	31	1597			23°13'30.24"	91°22'25.27"	
44		LOC-30/1	SP+0	0				1528			23°13'30.61"	91°22'24.24"	
45		LOC-30/2	SP+0	0			126						
AP-31		31	SP+0	0	05°18'18"LT			1754			23°13'32.59"	91°22'20.35"	



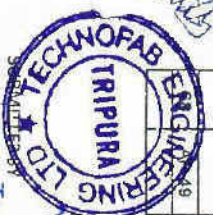
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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
47	AP-32	32	DP+0	0	10°36'35"RT	42	42	1796	11KV		23°13'33.13"	91°22'19"	
48	AP-33	33	SP+0	0	05°28'47"LT	42	32	1828			23°13'33.7"	91°22'18.08"	
49		LOC-33/1	SP+0	0		44	86	1914			23°13'35.04"	91°22'15.43"	
50	AP-34	34	DP+0	0	23°13'22"RT	44	87	2001			23°13'37.27"	91°22'13.54"	
51		LOC-34/1	SP+0	0		43	38	2039			23°13'38.4"	91°22'13"	
52	AP-35	35	DP+0	0	14°19'47"RT	38	26	2065	MRD, 11KV		23°13'39.04"	91°22'12.39"	
53	AP-36	36	DP+0	0	17°09'57"LT	26	39	2104	11KV LINE		23°13'39.45"	91°22'11.08"	
54	AP-37	37	DP+0	0	30°16'35"LT	39	45	2149			23°13'39.86"	91°22'9.394"	
55	AP-38	38	SP+0	0	04°12'18"LT	45	43	2192	MRD, 11KV		23°13'40"	91°22'7.88"	
56	AP-39	39	SP+0	0	08°31'16"LT	43	27	2219			23°13'39.93"	91°22'6.931"	
57	AP-40	40	DP+0	0	10°52'08"LT	27	43	2262			23°13'39.33"	91°22'5.566"	
58	AP-41	41	DP+0	0	20°32'19"LT	43	39	2301			23°13'39.38"	91°22'4.194"	
59	AP-42	42	DP+0	0	27°42'39"RT	39	88	2389			23°13'40.13"	91°22'1.194"	
60	AP-43	43	DP+0	0	12°49'53"RT	44	32	2421			23°13'40.08"	91°22'0.069"	
61		LOC-43/1	SP+0	0		44	45	2466	MRD		23°13'40.39"	91°21'58.51"	
62	AP-44	44	DP+0	0	17°33'26"LT	44	39	2505			23°13'40.54"	91°21'57.14"	
63	AP-45	45	DP+0	0	14°35'39"RT	32	84	2589			23°13'40.93"	91°21'54.21"	
64	AP-46	46	SP+0	0	05°29'55"LT	45	42	2631	11KV LINE		23°13'41.05"	91°21'52.74"	
65	AP-47	47	SP+0	0	01°35'45"RT	39							
66		LOC-47/1	SP+0	0		42							
67	AP-48	48	SP+0	0	03°27'41"LT	42							
68		LOC-48	DP+0	0	10°46'21"LT	44							



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN.M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
69		LOC-49/1	SP+0	0			75						
70	AP-50	50	SP+0	0	05°58'40"LT	31		2706			23°13'40.79"	91°21'50.1"	
71	AP-51	51	DP+0	0	16°23'22"LT	36		2742	11KV LINE MALA		23°13'40.55"	91°21'48.87"	
72	AP-52	52	DP+0	0	13°16'43"RT	45		2787	MRD, 11KV		23°13'39.86"	91°21'47.47"	
73	AP-53	53	DP+0	0	14°56'13"LT	38		2823			23°13'39.55"	91°21'46.25"	
74	AP-54	54	SP+0	0	07°14'58"LT	37		2860			23°13'38.95"	91°21'45.13"	
75	AP-55	55	SP+0	0	09°29'09"RT	44		2904			23°13'38.1"	91°21'43.91"	
76	AP-56	56	DP+0	0	42°52'21"RT	45		2949			23°13'37.4"	91°21'42.47"	
77	AP-57	57	DP+0	0	25°27'31"RT	42		2991			23°13'37.74"	91°21'41.1"	
78		LOC-57/1	SP+0	0			83						
79	AP-58	58	SP+0	0	07°51'17"LT	40		3074			23°13'38.33"	91°21'38.38"	
80	AP-59	59	DP+0	0	15°18'32"RT	38		3112	MRD, 2Nos 11KV		23°13'38.45"	91°21'37.04"	
81	AP-60	60	DP+0	0	11°35'14"RT	44		3166			23°13'38.95"	91°21'35.59"	
82	AP-61	61	SP+0	0	03°14'19"LT	40		3196			23°13'39.65"	91°21'34.39"	
83		LOC-61/1	SP+0	0									
84		LOC-61/2	SP+4	4			91						
85	AP-62	62	DP+4	4	41°33'19"LT	25		3287	MRD, 2Nos 11KV		23°13'41.09"	91°21'31.59"	
86	AP-63	63	DP+0	0	20°14'11"LT	39		3325	11KV LINE		23°13'40.81"	91°21'30.26"	
87		LOC-63/1	SP+4	4									
88		LOC-63/2	SP+4	4			102						
89	AP-64	64	DP+4	4	39°43'11"RT	17		3428	MRD, 11KV		23°13'39.03"	91°21'27.26"	
90		LOC-64/1	SP+4	4			90	3518			23°13'39.38"	91°21'24.09"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN.M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. TV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
92	AP-66	66	DP+0	0	1°13'54"LT	40	40	3558			23°13'39.96"	91°21'22.81"	
93		LOC-66/1	SP+4	4		31							
94	AP-67	67	DP+4	4	29°49'23"LT	33	64	3622	MRD, 11KV		23°13'40.49"	91°21'20.63"	
95		LOC-67/1	SP+0	0		45							
96	AP-68	68	SP+0	0	03°33'21"RT	45	90	3712			23°13'39.7"	91°21'17.5"	
97		LOC-68/1	SP+0	0		45							
98	AP-69	69	DP+0	0	03°25'51"LT	42	90	3802	NALA		23°13'39.12"	91°21'14.42"	
99		LOC-69/1	SP+4	4		43	85						
100	AP-70	70	FP+4	4	62°22'39"RT	40	40	3887	MRD, 11KV		23°13'38.41"	91°21'11.54"	
101	AP-71	71	DP+4	4	10°51'58"LT	41	40	3927			23°13'39.37"	91°21'10.58"	
102	AP-72	72	DP+4	4	21°05'52"LT	40	41	3968	11KV LINE		23°13'40.17"	91°21'9.412"	
103		LOC-72/1	SP+0	0		36	76						
104	AP-73	73	DP+0	0	14°38'04"LT	40		4044			23°13'40.83"	91°21'6.836"	
105		LOC-73/1	SP+0	0		41	81						
106	AP-74	74	DP+4	4	11°20'26"LT	41		4125			23°13'40.86"	91°21'3.987"	
107	AP-75	75	DP+4	4	15°01'04"LT	45	41	4166	11KV LINE		23°13'40.62"	91°21'2.582"	
108	AP-76	76	FP+4	4	60°58'17"RT	41	45	4211			23°13'39.95"	91°21'1.078"	
109	AP-77	77	SP+4	4	07°38'04"LT	42	41	4252	MRD, 11KV		23°13'40.72"	91°20'59.9"	
110	AP-78	78	DP+4	4	51°35'30"LT	40	42	4294	11KV LINE		23°13'41.36"	91°20'58.59"	
111		LOC-78/1	SP+0	0		45	85						
112	AP-79	79	DP+0	0	43°14'57"LT	45		4378			23°13'40.16"	91°20'55.65"	
113		LOC-79/1	SP+0	0		45	90						
		80	DP+0	0	21°31'51"LT	45		4469			23°13'37.61"	91°20'54.49"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
115		LOC-80/1	SP+0	0		45							
116	AP-81	81	SP+0	0	01°17'31"LT	40	85	4554					
117	AP-82	82	DP+0	0	18°49'29"RT	44	44	4598					
118	AP-83	83	SP+4	4	09°59'10"RT	45	45	4643					
119	AP-84	84	DP+4	4	24°19'10"RT	45	45	4698	11KV LINE				
120	AP-85	85	DP+0	0	10°50'25"RT	40	40	4728					
121	AP-86	86	DP+4	4	28°04'26"RT	45	45	4773	11KV LINE				
122		LOC-86/1	SP+0	0		42							
123	AP-87	87	DP+0	0	29°15'34"LT	43	85	4858					
124	AP-88	88	SP+0	0	04°45'49"RT	29	29	4887	MRD, 11KV				
125		LOC-88/1	SP+0	0		43							
126	AP-89	89	SP+0	0	02°42'29"RT	45	88	4975					
127	AP-90	90	DP+0	0	23°07'52"RT	28	28	5003					
128		LOC-90/1	SP+0	0		41			MRD				
129	AP-91	91	DP+0	0	13°55'53"RT	44	85	5088					
130	AP-92	92	DP+0	0	25°27'51"LT	39	39	5127	MRD				
131	AP-93	93	DP+0	0	18°00'15"LT	42	42	5169					
132	AP-94	94	SP+0	0	04°05'08"LT	39	39	5208					
133	AP-95	95	DP+0	0	15°46'11"LT	42	42	5250					
134	AP-96	96	DP+0	0	21°04'27"RT	38	38	5288					
135	AP-97	97	DP+0	0	16°39'35"RT	45	45	5333	MRD, 11KV LINE				
136	AP-98	98	SP+0	3	06°47'53"RT	33	33	5366	MRD, 11KV LINE				
137	AP-99	99	DP+0	0	31°57'07"LT	41	41	5407					



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POLE SCHEDULE

PROPOSED 33 KV LINE FROM RAJNAGR TO NIDVA

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
138	AP-100	100	DP+0	0	11°59'03"LT	45	45	5452			23°13'28.45"	91°20'27.23"	
139		LOC-100/1	SP+0	0					FOOT PATH, LT LINE				
140	AP-101	101	DP+0	0	19°15'33"RT	43	88	5540					
141	AP-102	102	DP+4	4	30°31'47"LT	35	35	5575	MRD		23°13'27.47"	91°20'24.33"	
142	AP-103	103	DP+0	0	19°44'43"RT	45	45	5620	11KV LINE		23°13'27.46"	91°20'23.1"	
143	AP-104	104	DP+0	0	14°35'54"RT	43	43	5663	11KV LINE		23°13'26.7"	91°20'21.73"	
144		LOC-104/1	SP+0	0		42					23°13'26.42"	91°20'20.26"	
145	AP-105	105	SP+0	0	05°38'54"RT	45	87	5750					
146	AP-106	106	DP+0	0	14°30'01"RT	43	43	5793	LT LINE		23°13'26.58"	91°20'17.09"	
147	AP-107	107	SP+4	4	01°28'59"LT	30	30	5823			23°13'26.8"	91°20'15.61"	
148	AP-108	108	SP+0	0	07°13'28"LT	45	45	5854	11KV LINE		23°13'27.18"	91°20'14.66"	
149	AP-109	109	DP+0	0	13°51'29"LT	41	45	5899			23°13'27.56"	91°20'13.63"	
150		LOC-109/1	SP+4	4		41	82				23°13'27.93"	91°20'12.08"	
151	AP-110	110	DP+4	4	23°46'38"LT	41		5961	VRD, LT				
152	AP-111	111	DP+4	4	33°27'01"RT	37	37	6018	MRD, 11KV(2NOS)		23°13'27.96"	91°20'9.199"	
153		LOC-111/1	SP+4	4		41			11KV LINE		23°13'27.5"	91°20'8.009"	
154		LOC-111/2	SP+0	0		45	131						
155	AP-112	112	SP+0	0	06°01'57"RT	45		6149			23°13'28.32"	91°20'3.144"	
156	AP-113	113	DP+4	4	10°09'09"RT	41	41	6190			23°13'28.7"	91°20'1.768"	
157	AP-114	114	SP+4	4	07°09'38"LT	37	37	6227	11KV, LT LINE		23°13'29.24"	91°20'0.6"	
158	AP-115	115	DP+4	4	22°24'55"RT	44	44	6271			23°13'29.71"	91°19'59.15"	
159	AP-116	116	DP+0	0	44°22'41"LT	16	16	6287	MRD, 2NOS 11KV	Radhanager	23°13'30.06"	91°19'58.72"	
		LOC-116/1	SP+4	4		45			LT LINE				



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POLE SCHEDULE

PROPOSED 33 KV LINE FROM RAJNAGR TO NIDYA

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
161		LOC-118/2	SP+0	0		41			BRICK ROAD(2NO)	Radhanager	23°13'48.22"	91°19'48.47"	
162		LOC-116/3	SP+0	0		40	184		VRD	Radhanager			
163		LOC-116/4	SP+4	4		22				Radhanager			
164	AP-117	117	DP+4	4	43°07'56"LT	36			LT FOOT PATH	Radhanager			
165	AP-118	118	DP+4	4	46°22'49"RT	17		6471		Radhanager	23°13'29.8"	91°19'52.25"	
166		LOC-118/1	SP+4	4		45		6488	MRD 2Nos 11KV	Radhanager	23°13'29.4"	91°19'51.83"	
167	AP-119	119	DP+0	0	35°08'55"RT	38	83		11KV LINE, VRD	Radhanager			
168	AP-120	120	DP+0	0	25°27'31"LT	34		6571		Radhanager	23°13'29.44"	91°19'48.91"	
169	AP-121	121	DP+0	0	44°46'12"RT	45		6605	MRD 11KV, 2 Nos LT LINE	Radhanager	23°13'30.08"	91°19'47.96"	
170	AP-122	122	DP+0	0	34°09'35"RT	34		6650	LT LINE	Radhanager	23°13'30.35"	91°19'46.34"	
171	AP-123	123	DP+0	0	13°19'28"RT	45		6684	MRD 11KV LINE	Radhanager	23°13'31.26"	91°19'45.66"	
172	AP-124	124	DP+0	0	14°58'34"RT	39		6729		Radhanager	23°13'32.72"	91°19'45.64"	
173	AP-125	125	SP+0	0	01°50'28"LT	44		6768	MRD 11KV LINE	Radhanager	23°13'33.96"	91°19'45.94"	
174	AP-126	126	DP+0	0	10°51'05"LT	36		6812		Radhanager	23°13'35.23"	91°19'46.65"	
175		LOC-126/1	SP+0	0		43		6848	MRD 11KV LINE	Radhanager	23°13'36.25"	91°19'47.28"	
176	AP-127	127	SP+0	0	03°32'20"RT	42	85		FOOT PATH, LT LINE	Radhanager			
177	AP-128	128	SP+0	0	08°17'26"LT	41		6933		Radhanager	23°13'38.86"	91°19'48.23"	
178		LOC-128/1	SP+0	0		43		6974	BRICK ROAD 11KV LINE	Radhanager	23°13'40.13"	91°19'48.61"	
179	AP-129	129	DP+0	0	12°32'26"LT	42	85			Radhanager			
180		LOC-129/1	SP+0	0		45		7059		Radhanager	23°13'42.87"	91°19'48.96"	
181	AP-130	130	SP+0	0	01°08'04"RT	45	90		LT LINE	Radhanager			
182	AP-131	131	SP+0	0	01°27'20"LT	29		7149	MRD 11KV LINE	Radhanager	23°13'45.79"	91°19'48.64"	
183		LOC-132	SP+0	0	05°56'22"LT	45		7178		Radhanager	23°13'46.73"	91°19'48.56"	
								7223		Radhanager	23°13'48.22"	91°19'48.47"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE (WGS-84)		REMARKS
											NORTHING	EASTING	
184	AP-133	133	SP+0	0	08°07'48"RT	36	36	7259	MRD, 11KV, LT LINE	Radhanager	23°13'49.39"	91°19'48.24"	
185		LOC-133/1	SP+0	0		42			NALA	Radhanager			
186		LOC-133/2	SP+0	0		42	129		FOOT PATH, LT LINE	Radhanager			
187	AP-134	134	SP+0	0	01°45'47"RT	45				Radhanager	23°13'53.58"	91°19'48.09"	
188		LOC-134/1	SP+0	0		42			LT LINE	Radhanager			
189	AP-135	135	SP+0	0	01°34'04"RT	40	82			Radhanager			
190	AP-136	136	SP+0	0	05°16'50"LT	43	43	7470	BRICK ROAD	Radhanager	23°13'56.25"	91°19'47.95"	
191		LOC-136/1	SP+0	0		41		7513		Radhanager	23°13'57.65"	91°19'47.86"	
192		LOC-136/2	SP+0	0		45	130		BRICK ROAD, LT LINE	Radhanager			
193	AP-137	137	SP+0	0	01°18'10"LT	44			LT LINE	Radhanager			
194	AP-138	138	SP+0	0	02°07'16"RT	44	44	7643		Radhanager	23°14'18.837"	91°19'47.17"	
195	AP-139	139	DP+0	0	10°52'45"LT	40	40	7687		Radhanager	23°14'3.232"	91°19'46.91"	
196	AP-140	140	SP+0	0	03°47'50"LT	42	42	7727		Radhanager	23°14'4.531"	91°19'46.72"	
197	AP-141	141	SP+0	0	07°23'46"LT	43	43	7769		Radhanager	23°14'5.826"	91°19'46.25"	
198	AP-142	142	DP+0	0	18°49'52"RT	39	39	7812	MRD	Radhanager	23°14'7.12"	91°19'45.67"	
199		LOC-142/1	SP+0	0		40		7851		Radhanager	23°14'8.218"	91°19'44.98"	
200	AP-143	143	SP+0	0	04°43'31"LT	43	83		NALA, LT LINE	Radhanager			
201		LOC-143/1	SP+0	0		45		7934		Radhanager	23°14'10.87"	91°19'44.42"	
202	AP-144	144	SP+0	0	04°12'22"RT	45	90			Radhanager	23°14'13.76"	91°19'43.54"	
203		LOC-144/1	SP+0	0		40		8024	LT LINE	Radhanager			
204	AP-145	145	SP+0	0	03°16'28"LT	39	79			Radhanager	23°14'16.29"	91°19'42.98"	
205		LOC-145/1	SP+0	0		44		8103		Radhanager			
		LOC-145/2	SP+0	0		45			FOOT PATH, LT LINE	Radhanager			



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
207		LOC-145/3	SP+0	0		45	224						
208		LOC-145/4	SP+0	0		45			LT LINE				
209	AP-146	146	SP+0	0	02°09'14"RT	45		8327					
210	AP-147	147	SP+0	0	01°22'57"RT	45		8372					
211	AP-148	148	DP+0	0	14°03'48"RT	45		8417					
212		LOC-148/1	SP+0	0		44			11KV LINE				
213		LOC-148/2	SP+0	0		45	132						
214	AP-149	149	SP+0	0	06°03'45"RT	43		8549					
215	AP-150	150	SP+0	0	03°50'48"LT	44		8593					
216		LOC-150/1	SP+0			40			VRD,NALA,11KV,LT LINE				
217	AP-151	151	DP+0	0	11°31'18"RT	45	85	8678					
218	AP-152	152	SP+2	2	03°20'02"RT	36		8714					
219		LOC-152/1	SP+0	0		43	88		BRICK ROAD,LT LINE				
220	AP-153	153	SP+0	0	07°10'10"LT	45		8802					
221		LOC-153/1	SP+0	0		45	89						
222	AP-154	154	DP+4	4	18°12'07"LT	44		8891					
223	AP-155	155	DP+4	4	18°00'45"RT	31		8922					
224	AP-156	156	SP+4	4	02°21'31"RT	45		8967					
225	AP-157	157	DP+0	0	14°14'54"LT	44		9011					
226		LOC-157/1	SP+0	0		43			VRD				
227		LOC-157/2	SP+0	0		45	133						
228	AP-158	158	SP+2	2	01°20'27"RT	45		9144					
		LOC-158/1	SP+0	0					LT LINE				



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE (WGS-84)		REMARKS
											NORTHING	EASTING	
230		LOC-158/2	SP+0	0		45			L.T LINE	Rangamora			
231	AP-159	159	DP+0	0	01°34'59"LT	45	45	9189		Rangamora	23°14'53.87"	91°19'40.51"	
232		LOC-159/1	SP+0	0		45				Rangamora			
233		LOC-159/2	SP+0	0		42	132						
234	AP-160	160	SP+0	0	04°53'52"RT	45		9321		Rangamora	23°14'58.12"	91°19'39.68"	
235	AP-161	161	DP+0	0	07°40'16"RT	45	45	9366		Rangamora	23°14'59.33"	91°19'39.56"	
236		LOC-161/1	SP+0	0		42							
237		LOC-161/2	SP+0	0		37	124						
238	AP-162	162	DP+0	0	12°40'23"RT	45		9490			23°15'3.624"	91°19'39.76"	
239	AP-163	163	DP+0	0	14°20'41"LT	45	45	9535		MRD, 11KV	23°15'4.668"	91°19'40.06"	
240	AP-164	164	DP+4	4	41°59'58"RT	42	42	9577		MRD, 11KV(2nos)	23°15'6.033"	91°19'40.08"	
241	AP-165	165	DP+4	4	34°06'28"RT	25	25	9602		Rangamora	23°15'6.625"	91°19'40.67"	
242	AP-166	166	DP+0	0	66°25'49"LT	45	45	9647			23°15'6.967"	91°19'42.25"	
243	AP-167	167	DP+0	0	20°24'04"LT	42	42	9689			23°15'8.302"	91°19'42.51"	
244		LOC-167/1	SP+0	0		45	90						
245	AP-168	168	SP+0	0	05°10'27"LT	28	28	9779			23°15'11.25"	91°19'41.95"	
246	AP-169	169	DP+0	0	35°00'12"LT	45	45	9807		MRD	23°15'12.13"	91°19'41.69"	
247	AP-170	170	DP+0	0	10°39'12"RT	45	45	9862		Rangamora	23°15'13.05"	91°19'40.48"	
248	AP-171	171	DP+0	0	17°25'32"LT	40	40	9892		NALA	23°15'14.05"	91°19'39.59"	
249	AP-172	172	DP+4	4	12°11'29"RT	40	40	9932		11KV/LT LINE	23°15'14.76"	91°19'38.42"	
250	AP-173	173	DP+4	4	22°34'39"RT	45	45	9977		MRD/LT LINE	23°15'15.82"	91°19'37.28"	
251	AP-174	174	DP+4	4	17°21'19"RT	41	41	10018		MRD, 11KV	23°15'17.05"	91°19'36.74"	
		175	DP+4	4	19°28'00"LT	42	42	10060		MRD, 11KV	23°15'18.41"	91°19'36.62"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN.M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
253	AP-176	176	SP+4	4	04°50'27"LT	43	43	10103			23°15'19.67"	91°19'36"	
254	AP-177	177	DP+4	4	18°27'17"LT	42	42	10145	11KV LINE		23°15'20.87"	91°19'35.28"	
255	AP-178	178	SP+4	4	01°11'52"RT	44	44	10189	11KV LINE	Rangamora	23°15'21.83"	91°19'34.15"	
255	AP-179	179	DP+4	4	34°21'54"RT	40	40	10229			23°15'22.7"	91°19'33.11"	
257	AP-180	180	DP+4	4	11°25'19"LT	41	41	10270			23°15'23.99"	91°19'32.78"	
258	AP-181	181	DP+4	4	20°49'54"RT	42	42	10312	MRD, 11KV(2NOS),LT LINE		23°15'25.22"	91°19'32.17"	
259	AP-182	182	SP+4	4	05°34'17"LT	35	35	10347	MRD, 11KV(2NOS),LT LINE(2NOS)		23°15'26.36"	91°19'32.08"	
260		LOC-182/1	SP+0	0		44							
261		LOC-182/2	SP+0	0		45	134						
262	AP-183	183	SP+4	4	04°49'46"LT	45		10481	FOOT PATH		23°15'30.74"	91°19'31.29"	
263	AP-184	184	DP+4	4	15°37'26"RT	44	38	10519	MRD, 11KV LINE		23°15'31.94"	91°19'30.96"	
264		LOC-184/1	SP+0	0		44	88						
265	AP-186	185	SP+4	4	08°03'20"RT	35		10607	MRD, 11KV LINE		23°15'34.8"	91°19'31.03"	
266	AP-186	186	SP+4	4	07°27'47"LT	45	36	10642	VRD, 11KV LINE		23°15'35.91"	91°19'31.23"	
267	AP-187	187	SP+0	0	05°23'55"RT	43	45	10687	LT LINE		23°15'37.37"	91°19'31.28"	
268	AP-188	188	DP+0	3	10°03'38"RT	42	43	10730	LT LINE		23°15'38.77"	91°19'31.47"	
269	AP-189	189	SP+0	0	01°23'57"LT	44	42	10772	LT LINE		23°15'40.08"	91°19'31.91"	
270		LOC-189/1	SP+0	0		40	84						
271	AP-190	190	DP+4	4	13°19'28"LT	36		10855	MRD, 11KV LINE		23°15'42.72"	91°19'32.72"	
272	AP-191	191	SP+4	4	01°57'39"LT	45	36	10892			23°15'43.89"	91°19'32.78"	
273	AP-192	192	DP+0	0	20°04'19"LT	45	45	10937			23°15'45.42"	91°19'32.8"	
274	AP-193	193	SP+4	4	02°54'28"RT	38	45	10982			23°15'46.75"	91°19'32.29"	
		194	DP+4	4	24°45'00"LT	36	36	11018	MRD, 11KV LINE		23°15'47.88"	91°19'31.92"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
276		LOC-194/1	SP+0	0		43							
277		LOC-194/2	SP+0	0		45	132						
278	AP-195	195	SP+0	0	05°09'28"RT	44		11150					
279	AP-196	196	DP+0	0	16°03'31"LT	43	43	11193	11KV LINE				
280	AP-197	197	DP+2	2	21°37'56"LT	43	43	11236	LT LINE				
281	AP-198	198	DP+0	0	58°42'30"RT	45	45	11281					
282	AP-199	199	DP+4	4	24°45'00"LT	32	32	11313					
283	AP-200	200	DP+4	4	28°41'13"RT	42	42	11365	MRD, 11KV LINE				
284	AP-201	201	DP+0	0	17°09'57"RT	43	43	11368					
285		LOC-201/1	SP+0	0		43	88						
286	AP-202	202	SP+0	0	09°47'19"LT	45		11486	MRD, NALA				
287	AP-203	203	DP+0	0	07°24'13"LT	43	43	11529					
288		LOC-203/1	SP+0	0		43	132		BRICK ROAD				
289		LOC-203/2	SP+0	0		44							
290	AP-204	204	DP+0	0	05°03'49"RT	45		11661					
291		LOC-204/1	SP+0	0		45	135						
292		LOC-204/2	SP+0	0		45							
293	AP-205	205	SP+0	0	03°31'56"RT	42		11796					
294	AP-206	206	DP+0	0	16°37'39"LT	40	42	11838					
295	AP-207	207	DP+4	4	12°00'33"LT	41	40	11878	MRD, 11KV LINE				
296	AP-208	208	DP+4	4	29°10'41"RT	35	41	11919	MRD				
297	AP-209	209	DP+0	0	26°53'17"LT	35	35	11954	MRD				



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. TV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
298		LOC-209/1	SP+0	0		45			FOOT PATH				
299	AP-210	210	SP+0	0	01°29'18"LT	38		12037					
300	AP-211	211	DP+0	0	05°42'38"RT	45	83	12082					
301		LOC-211/1	SP+0	0		43							
302		LOC-211/2	SP+0	0		42							
303		LOC-211/3	SP+0	0		45							
304	AP-212	212	DP+4	4	05°14'50"RT	42		12254					
305	AP-213	213	SP+4	4	06°38'29"RT	44		12298	11KV LINE				
306	AP-214	214	SP+4	4	01°44'45"RT	43		12341	VRD				
307	AP-215	215	DP+4	4	26°43'56"RT	30		12371	MRD, 11KV LINE				
308		LOC-215/1	SP+0	0		42							
309		LOC-215/2	SP+0	0		45	132						
310	AP-216	216	DP+0	0	17°43'57"LT	45		12503	MRD				
311		LOC-216/1	SP+0	0		43							
312		LOC-216/2	SP+0	0		44			LT LINE				
313		LOC-216/3	SP+0	0		44	174		11KV LINE	Vobanepur			
314	AP-217	217	DP+0	0	10°17'22"LT	43		12577	VRD				
315	AP-218	218	DP+4	4	38°58'22"RT	38		12715	MRD				
316	AP-219	219	DP+4	4	84°31'31"LT	45		12760	11KV LINE				
317		LOC-219/1	SP+0			30			VRD, LT LINE	Vobanepur			
318	AP-220	220	DP+4	4	39°16'12"RT	34		12824		Vobanepur			
319		LOC-220/1	SP+0	0		43			LT LINE (ZNOS)				
	AP-221	221	SP+0	0	04°23'55"LT	45	88	12912	LT LINE	Vobanepur			



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. TV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
321	AP-222	222	DP+0	0	27°34'57"RT	30	30	12942			23°16'44.16"	91°19'11.54"	
322	AP-223	223	DP+0	0	15°59'12"LT	36	36	12978	MRD, LT LINE	Vobanepur	23°16'45.34"	91°19'11.71"	
323		LOC-223/1	SP+0	0		43	89						
324	AP-224	224	DP+0	0	16°57'24"LT	45	45	13066	BRICK ROAD	Vobanepur	23°16'48.26"	91°19'11.39"	
325	AP-225	225	SP+0	0	04°50'16"RT	45	45	13111			23°16'49.62"	91°19'10.77"	
326		LOC-225/1	SP+0	0		45	132						
327		LOC-225/2	SP+0	0		45	132		LT LINE				
328	AP-226	226	SP+0	0	03°29'30"LT	42	42	13243		Vobanepur	23°16'53.7"	91°19'9.353"	
329	AP-227	227	DP+0	0	16°16'5"RT	45	42	13285			23°16'55.03"	91°19'8.985"	
330		LOC-227/1	SP+0	0		45	134			Vobanepur			
331		LOC-227/2	SP+0	0		44	134						
332	AP-228	228	SP+0	0	06°35'09"LT	42	129	13419		Vobanepur	23°16'59.38"	91°19'9.141"	
333		LOC-228/1	SP+0	0		44	129		LT LINE(2NOS)				
334		LOC-228/2	SP+0	0		43	129						
335	AP-229	229	DP+0	0	17°43'57"LT	44	89	13548	BRICK ROAD, LT LINE	Vobanepur	23°17'3.546"	91°19'8.772"	
336		LOC-229/1	SP+0	0		45	89	13637		Vobanepur			
337	AP-230	230	SP+0	0	06°05'51"LT	40	102				23°17'6.296"	91°19'7.576"	
338		LOC-230/1	SP+0	0		40	102			Vobanepur			
339		LOC-230/2	SP+0	0		22	102			Vobanepur			
340	AP-231	231	DP+0	0	50°52'04"RT	43	43	13739	MRD	Vobanepur	23°17'9.237"	91°19'5.885"	
341	AP-232	232	DP+0	0	12°22'24"LT	42	43	13782		Vobanepur	23°17'10.51"	91°19'6.468"	
342		LOC-232/1	SP+0	0		41	83			Vobanepur	23°17'13.15"	91°19'6.998"	



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POLE SCHEDULE

PROPOSED 33 KV LINE FROM RAINAGR TO NIDYA

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
344	AP-234	234	SP+4	4	01°13'33"RT	45	45	13910	LT LINE	East vobanepur	23°17'14.61"	91°19'6.944"	
345	AP-235	235	SP+0	0	09°47'00"LT	45	45	13955	BRICK ROAD	East vobanepur	23°17'16.37"	91°19'6.89"	
346			SP+0	0		45	89			East vobanepur			
347	AP-236	236	SP+0	0	02°20'10"LT	42	42	14044		East vobanepur	23°17'18.89"	91°19'6.257"	
348			SP+0	0		44	86			East vobanepur			
349	AP-237	237	SP+0	0	06°36'13"RT	42	42	14130		East vobanepur	23°17'21.61"	91°19'5.519"	
350	AP-238	238	DP+4	4	17°34'24"RT	45	42	14172	MRD, 11KV LINE	East vobanepur	23°17'22.98"	91°19'5.326"	
351			SP+0	0		45	171			East vobanepur			
352			SP+0	0		45				East vobanepur			
353			SP+0	0		36				East vobanepur			
354	AP-239	239	DP+0	0	06°19'05"RT	45	44	14343		East vobanepur	23°17'28.45"	91°19'6.383"	
355			SP+0	0		45	44	14522		East vobanepur	23°17'33.94"	91°19'8.531"	
356			SP+0	0		45	40	14562		East vobanepur	23°17'34.89"	91°19'9.47"	
357	AP-240	240	DP+0	0	14°04'56"RT	44	40	14478		East vobanepur	23°17'32.69"	91°19'7.737"	
358	AP-241	241	DP+0	0	11°46'11"RT	45	42	14652	MRD	East vobanepur	23°17'35.96"	91°19'12.44"	
359	AP-242	242	DP+0	0	26°24'56"RT	45	42	14694	BRICK ROAD, 11KV LINE	East vobanepur	23°17'36.33"	91°19'13.88"	
360			SP+0	0		45	90			East vobanepur			
361	AP-243	243	SP+4	4	05°38'41"RT	42	42	14829	MRD, 11KV LINE	East vobanepur	23°17'41.66"	91°19'16.03"	
362	AP-244	244	DP+4	4	51°26'57"LT	45	135	14869		East vobanepur	47°37'28.96"	90°42'52.8"	
363			SP+0	0		45				East vobanepur			
364			SP+0	0		45				East vobanepur			
365	AP-245	245	DP+4	4	10°32'16"LT	40	40	14869	MRD, 11KV LINE	East vobanepur	23°17'41.66"	91°19'16.03"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. TV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
367	AP-247	247	DP+4	4	11°55'24"LT	42	42	14911	MRD		23°17'43.02"	91°19'16.16"	
368	AP-248	248	DP+4	4	14°04'40"RT	44	44	14955	LT LINE	Duluppur	23°17'44.45"	91°19'15.96"	
369	AP-249	249	SP+0	0	04°42'59"LT	45	45	15000		Duluppur	23°17'45.92"	91°19'16.15"	
370		LOC-249/1	SP+0	0		45				Duluppur			
371		LOC-249/2	SP+0	0		45				Duluppur			
372		LOC-249/3	SP+0	0		45	179			Duluppur			
373	AP-250	250	DP+4	4	24°40'47"LT	44		15179		Duluppur			
374	AP-251	251	DP+4	4	21°48'05"RT	42	42	15221	MRD 11KV LINE		23°17'51.74"	91°19'16.4"	
375	AP-252	252	DP+4	4	27°53'50"RT	42	42	15263		Duluppur	23°17'53.19"	91°19'15.75"	
376	AP-253	253	DP+4	4	35°32'16"RT	38	38	15301	MRD LT LINE		23°17'54.56"	91°19'15.73"	
377	AP-254	254	DP+4	4	21°40'29"LT	42	42	15343	11KV LINE	Duluppur	23°17'55.67"	91°19'16.35"	
378		LOC-254/1	SP+0	0		37	75			Shill tila			
379	AP-255	255	DP+0	0	30°57'30"RT	38		15418		Shill tila	23°17'58.14"	91°19'19.41"	
380	AP-256	256	DP+4	4	59°08'59"LT	45	45	15463		Shill tila	23°17'58.61"	91°19'20.99"	
381	AP-257	257	DP+4	4	29°57'36"LT	30	30	15493	MRD	Shill tila	23°17'59.56"	91°19'21.23"	
382	AP-258	258	DP+0	0	33°33'39"LT	35	35	15528		Shill tila	23°18'0.665"	91°19'20.86"	
383		LOC-258/1	SP+0	0		44			NALA	Shill tila			
384	AP-259	259	DP+4	4	22°00'56"LT	45	89	15617	11KV LINE (2NOS), MRD	Shill tila	23°18'2.524"	91°19'18.41"	
385	AP-260	260	DP+0	0	56°35'22"RT	45	45	15662		Shill tila	23°18'2.963"	91°19'16.89"	
386	AP-261	261	DP+0	0	35°37'22"RT	41	41	15703		Shill tila	23°18'4.259"	91°19'16.49"	
387		LOC-261/1	SP+0	0		44				Shill tila			
388		LOC-261/2	SP+0	0		43	130			Shill tila			
	P-262	262	DP+0	0	21°17'07"RT	43		15833			23°18'8.242"	91°19'18.02"	



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 (Deputy Manager, Electrical)

Approved by: **PGCIL**

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
390	AP-263	263	DP+0	0	55°35'36"RT	45	45	15878		Shill tila	23°18'9.391"	91°19'19.1"	
391	AP-264	264	DP+0	0	16°04'25"RT	40	40	15918		Shill tila	23°18'9.244"	91°19'20.51"	
392	AP-265	265	FP+0	0	88°25'24"LT	45	45	15963		Shill tila	23°18'8.674"	91°19'21.99"	
393	AP-266	266	DP+0	0	35°04'48"LT	29	29	15992	MRD	Shill tila	23°18'3.524"	91°19'22.4"	
394	AP-267	267	DP+0	0	21°48'05"RT	45	45	16037		Shill tila	23°18'10.95"	91°19'22.11"	
395		LOC-267/1	SP+0	0		30	60		NALA	Shill tila			
396	AP-268	268	DP+0	0	23°38'15"RT	33	33	16097		Shill tila	23°18'12.87"	91°19'22.5"	
397	AP-269	269	SP+0	0	04°36'16"LT	45	45	16130		Shill tila	23°18'13.75"	91°19'23.16"	
398	AP-270	270	DP+0	0	19°39'53"RT	39	39	16175	MRD	Shill tila	23°18'15.03"	91°19'23.95"	
399	AP-271	271	SP+0	0	03°58'05"RT	44	44	16214		Shill tila	23°18'15.85"	91°19'25"	
400	AP-272	272	DP+0	0	32°37'20"RT	43	44	16258		Shill tila	23°18'16.71"	91°19'26.26"	
401		LOC-272/1	SP+0	0		45	88		BRICK ROAD, 11KV LINE	Shill tila			
402	AP-273	273	DP+0	0	28°02'54"LT	34	34	16346	MRD		23°18'16.91"	91°19'29.39"	
403		LOC-273/1	SP+0	0		31	65		MRD				
404	AP-274	274	DP+0	0	37°25'08"LT	44	44	16411		Khchigang	23°18'18.04"	91°19'31.34"	
405	AP-275	275	DP+0	0	23°40'56"RT	45	45	16455		Khchigang	23°18'19.37"	91°19'31.89"	
406	AP-276	276	DP+0	0	17°43'57"LT	32	45	16500	FOOT PATH	Khchigang	23°18'20.43"	91°19'33"	
407	AP-277	277	DP+0	0	34°04'38"LT	41	32	16532	MRD	Khchigang	23°18'21.47"	91°19'32.99"	
408	AP-278	278	DP+4	4	11°27'28"RT	39	41	16573	MRD	Khchigang	23°18'22.56"	91°19'32.17"	
409	AP-279	279	DP+4	4	44°04'03"RT	30	39	16612	MRD 11KV LINE	Khchigang	23°18'23.73"	91°19'31.62"	
410	AP-280	280	FP+0	0	74°04'47"RT	31	30	16642	MRD	Khchigang	23°18'24.64"	91°19'32"	
411	AP-281	281	DP+4	4	41°51'16"LT	42	31	16673		Khchigang	23°18'24.56"	91°19'33.09"	
	AP-282	282	SP+0	0	08°08'54"RT	42	42	16715			23°18'25.38"	91°19'34.28"	



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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. IN M.	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMUL. TV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE (WGS-84)		REMARKS
											NORTHING	EASTING	
413	AP-283	283	DP+0	0	29°28'50"RT	32	32	16747		Khochigang	23°18'25.88"	91°19'35.26"	
414	AP-284	284	DP+0	0	22°20'22"LT	44	44	16791			23°18'25.86"	91°19'36.81"	
415	AP-285	285	DP+0	0	35°58'35"LT	42	42	16833		Khochigang	23°18'26.37"	91°19'38.17"	
416	AP-286	286	SP+0	0	03°34'24"LT	44	44	16877			23°18'27.58"	91°19'39"	
417		LOC-286/1	SP+0	0									
418	AP-287	287	DP+4	4	37°55'37"LT	36	81	16958			23°18'29.9"	91°19'40.38"	
419	AP-288	288	SP+4	4	01°12'55"LT	40	40	16998		Khochigang	23°18'31.2"	91°19'40.15"	
420	AP-289	289	SP+0	0	08°42'47"LT	39	39	17037			23°18'32.46"	91°19'39.93"	
421		LOC-289/1	SP+0	0									
422		LOC-289/2	SP+0	0			130						
423	AP-290	290	FP+0	0	70°41'35"LT	31	31	17167		Nidaya	23°18'36.48"	91°19'38.5"	
424	AP-291	291	SP+0	0	09°18'07"LT	32	31	17198		Nidaya	23°18'36.5"	91°19'37.41"	
425		LOC-291/1	SP+0	0									
426		LOC-291/2	SP+0	0			108			Nidaya			
427	AP-292	292	DP+0	0	16°04'12"RT	33	33	17306			23°18'36.01"	91°19'33.65"	
428	AP-293	293	FP+0	0	00°00'00"	33	33	17336		Nidaya	23°18'36.16"	91°19'32.49"	

Pole schedule with normal pole (TOM) & which are within the permissible limit of angle of deviation and within permissible limit of individual span are approved.

But as hold all road crossings spans, powerline crossings, span, railway line crossings, river crossings etc and span having angle of individual span limit violation. Details profile to be submitted for the above crossings. M/s TECHNOSAB may be initiated accordingly.



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Handwritten signature and date: 21/04/2018

**LHO OF AGARTALA (79 TILLA) - DHALABIL (KHOWAD)132 KV S/C LINE AT MOHANPUR (HEZAMARA)**  
**Detail RE-Survey Tower Schedule**

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cum. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	CO-ORDINATE		Village	
									Left	Right	Total	Left	Right	Total				NORTHING	EASTING		
1		EXISTING TOWER NO 52	DA+06		300			27.81		174.3	174.3		191.9	191.9				23°57'44.60"	91°22'44.59"		
2		EXISTING TOWER NO 51	DB+03	15°34'53"	50		300	26.162	125.7	122.8	248.4	108.1	193.4	301.5	350.0	175.0			23°57'35.10"	91°22'42.90"	
3	AP 1A	AP-1A/0	DDE+00	90°00'00"	20	350	350	26.05	-72.8	5.3	-67.5	-143.4	1.9	-141.6	70.0	35.0			23°57'37.70"	91°22'42.09"	
4	AP 1	AP-1/0	DD+00	21°57'27"	L	20	370	26.11	14.7		14.7	18.1		18.1				23°57'33.97"	91°22'41.45"		

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<b>PREPARED BY</b>	<b>SUBMITTED</b>	<b>CHECKED BY</b>	<b>RECOMMENDED BY</b>	<b>APPROVED BY</b>
 <b>JAYDIP NATH</b> PROJECT MANAGER				

*15/11/2016*


LHO OF AGARTALA (79 TILLA) - DHALABU (KHOWAI) 132 KV S/C LINE AT MOHANPUR (HEZAMARA)

Detail RE-Survey Tower Schedule

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cummu. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	NORTHING	EASTING	Village
									Left	Right	Total	Left	Right	Total						
1	EXISTING TOWER NO 49	EXISTING TOWER NO 49	DC+06		349			36.084	209.1	209.1	209.1	234.1	234.1					23°57'16.08"	91°22'32.21"	
2		EXISTING TOWER NO 50	DA+03	00°41'00"	252		349	31.402	139.9	178.1	318.0	114.9	215.7	330.6	601.0	300.5	Mud Road	23°57'26.40"	91°22'37.90"	
3	AP 1A	AP-1A/0	DDE+00	90°00'00"	20	601	601	26.05	73.9	5.3	79.2	36.3	1.9	38.2	272.0	136.0		23°57'37.70"	91°22'42.09"	
4	AP 1	AP-1/0	DD+00	21°57'27"	L	20	621	26.11	14.7		14.7	18.1		18.1				23°57'33.97"	91°22'41.45"	

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LHO OF AGARTALA (79 TILLA) - DHALABIL (KHOWAI)132 KV S/C LINE AT MOHANPUR (HEZAMARA)

Detail RE-Survey Tower Schedule

Sl No.	AP No.	Loc. No.	Type of Tower	Angle of Deviation	Span in Metre	Section Length	Cum. Dist. (M)	Reduce Level	Weight Span(H)			Weight Span(C)			Sum of Adjacent Span	Wind Span	Crossing Details/ Remarks	CO-ORDINATE		Village Name
									Left	Right	Total	Left	Right	Total				NORTHING	EASTING	
1	1A	1A/0	DD+00	90°00'00"	20			26.05	5.3	5.3		1.9	1.9				23°57'37.70"	91°22'42.09"		
2	1	1/0	DD+00	21°57'27"	375	20	20	26.11	14.7	146.5	161.2	18.1	116.8	134.9	395.0	197.5		23°57'33.97"	91°22'41.45"	
3	2	2/0	DC+09	17°53'14"	360	375	395	26.91	228.5	194.8	423.4	258.2	205.6	463.8	735.0	367.5		23°57'33.90"	91°22'28.00"	
4	3	3/0	DD+06	56°34'42"	252	360	755	26.51	165.2	151.8	316.9	154.4	170.4	324.9	612.0	306.0		23°57'42.27"	91°22'15.75"	
5	4	4/0	DD+00	59°8'54"	155	252	1007	28.374	100.2	39.7	139.9	81.6	12.4	93.9	407.0	203.5		23°57'37.70"	91°22'09.26"	
6	5	5/0	DDE+00	14°17'18"	62	155	1162	32.105	115.3	72.9	188.2	142.6	103.1	245.7	217.0	108.5		23°57'42.76"	91°22'10.53"	
7	GAN	GANT	DD+00	07°23'51"		62	1224	30.453										23°57'44.51"	91°22'41.45"	

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# POLE SUMMARY

## POLE SUMMARY DETAILS

TRIPURA STATE ASSOCIATED WITH NER POWER SYSTEM IMPROVEMENT PROJECT (DMS PACKAGE-03)

TRI-DMS-03 (3604) CC-CS/86-NER/REW-2986/1/G2/NOA-I/7168 & 7169 Date: 22.02.2017

LINE LINK: EXISTING 33/11 KV MELAGARH S/S TO PROPOSED 33/11 KV NALCHAR S/S

TOTAL LINE LENGTH: 6.801 km

S.No.	Type of Pole	Extension	Pole Qty	12 m Pole	14 m Pole	16 m Pole	Remarks
1	SP (GA-01)	0 m	22	22			
2		2 m	6		6		
3		4 m	5			5	
4	SP (GA-02)	0 m	41	41			
5		2 m	3		3		
6		4 m	13			13	
7	DP (GA-03)	0 m	52	104			
8		2 m	3		6		
9		4 m	34			68	
10	FP (GA-04)	0 m	3	12			
11		2 m	0		0		
12		4 m	3			12	
<b>TOTAL</b>				<b>179</b>	<b>15</b>	<b>98</b>	


  
 TRIPURA TECHNOFAB ENGINEERING LTD.

SUBMITTED BY: *[Signature]*
  
 CHECKED BY: (AET)

PGCIL

एम.के.नाग / M. K. NAG
   
 शक्ति / MANAGER
   
 क्षेत्र / POWERGRID
   
 APPROVED BY: *[Signature]*
  
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Sl. No.	AP No.	SP No.	SP Type	RT/LT	RT	LT	Distance	Remarks	BOIRAGI BAZER	RT	LT	Notes
52	AP-51	51	SP+0	5°04'RT	40	40	1892		BOIRAGI BAZER	23°30'28.99"	91°20'27.81"	
53	AP-52	52	DP+0	16°50'LT	31	31	1932		BOIRAGI BAZER	23°30'29.85"	91°20'26.89"	
54	AP-53	53	SP+0	5°21'6"RT	35	35	1963		BOIRAGI BAZER	23°30'30.7"	91°20'29.48"	
55		53/1	SP+0			70			BOIRAGI BAZER			
56	AP-54	54	DP+4	21°29'17"RT	35	35	2033	LT Line	BOIRAGI BAZER	23°30'32.47"	91°20'30.98"	HOLD
57	AP-55	55	DP+0	28°41'23"LT	30	30	2063	SH-6, 11KV	BOIRAGI BAZER	23°30'32.97"	91°20'31.89"	HOLD
58		55/1	SP+0		40	80						
59	AP-56	56	SP+0	3°15'49"RT	35	35	2143			23°30'35.23"	91°20'33.34"	
60	AP-57	57	DP+0	35°54"RT	29	29	2178	LT Line		23°30'36.18"	91°20'34.03"	HOLD
61	AP-58	58	DP+4	28°45'45"LT	20	20	2207	SH-6, MRD, 2 Nos. LT Line, 11KV	boiragipara	23°30'36.51"	91°20'34.98"	HOLD
62	AP-59	59	DP+0	45°38'43"RT	42	42	2227	Road	boiragipara	23°30'37"	91°20'35.43"	HOLD
63	AP-60	60	SP+0	8°50'24"RT	36	36	2269		boiragipara	23°30'37.15"	91°20'36.91"	HOLD
64		60/1	SP+0		42			LT	boiragipara			HOLD
65		60/2	SP+2		40	202			boiragipara			
66		60/3	SP+0		42				boiragipara			
67		60/4	SP+0		42				boiragipara			
68	AP-61	61	DP+0	13°19'33"LT	41	41	2471	LT Line	boiragipara	23°30'36.84"	91°20'44.03"	HOLD
69	AP-62	62	DP+2	10°47'58"LT	40	40	2512		boiragipara	23°30'37.08"	91°20'45.44"	HOLD
70	AP-63	63	SP+4	5°50'22"LT	31	31	2551	SH-6, LT Line, 11KV	boiragipara	23°30'37.55"	91°20'46.74"	HOLD
71	AP-64	64	SP+0	0°36'58"LT	42	42	2583		boiragipara	23°30'38.01"	91°20'47.72"	HOLD
72	AP-65	65	SP+0	0°34'39"LT	43	43	2624	1 Nos. Cable Crossing	boiragipara	23°30'38.64"	91°20'49.02"	HOLD
73	AP-66	66	DP+0	14°30'55"LT	30	30	2667		boiragipara	23°30'39.31"	91°20'50.35"	HOLD
74	AP-67	67	DP+0	24°47'39"LT	28	28	2697	SH-6, LT Line, 11KV	boiragipara	23°30'39.97"	91°20'51.12"	HOLD
75	AP-68	68	DP+4	13°50'31"LT	25	25	2725	LT Line, 11KV	boiragipara	23°30'40.82"	91°20'51.49"	HOLD
76	AP-69	69	SP+4	5°20'39"RT	28	28	2750	SH-6, LT Line	boiragipara	23°30'41.63"	91°20'51.62"	HOLD
77	AP-70	70	DP+0	49°23'35"LT	39	39	2778		boiragipara	23°30'42.51"	91°20'51.86"	HOLD
78	AP-71	71	SP+0	2°38'17"LT	41	41	2817		boiragipara	23°30'43.54"	91°20'51.07"	
79	AP-72	72	DP+0	11°26'12"RT	30	30	2859		boiragipara	23°30'44.61"	91°20'50.18"	
80	AP-73	73	DP+4	23°0'27"RT	22	22	2888	SH-6, LT Line, 11KV	boiragipara	23°30'45.48"	91°20'49.71"	HOLD
81	AP-74	74	DP+0	50°43'29"RT	39	39	2911		boiragipara	23°30'46.19"	91°20'49.66"	
82	AP-75	75	DP+0	16°36'1"RT	40	40	2949		boiragipara	23°30'47.06"	91°20'50.68"	
83	AP-76	76	SP+0	9°19'36"RT	47	47	2989		boiragipara	23°30'47.62"	91°20'51.94"	HOLD
84		76/1	SP+0		48	53			boiragipara			HOLD
85	AP-77	77	SP+0	7°48'15"LT	27	27	3084		boiragipara	23°30'48.49"	91°20'55.13"	HOLD
86	AP-78	78	DP+0	12°51'7"LT	22	22	3112	SH-6, LT Line, 11KV	boiragipara	23°30'48.86"	91°20'56.01"	HOLD
87	AP-79	79	DP+4	42°51'9"LT	20	20	3134	VRD	boiragipara	23°30'49.29"	91°20'56.64"	HOLD
88	AP-80	80	DP+0	37°52'30"LT	38	38	3154	2 Nos. 11KV	boiragipara	23°30'49.94"	91°20'56.77"	HOLD
89	AP-81	81	DP+4	26°23'33"LT	33	33	3192		boiragipara	23°30'51.04"	91°20'56.16"	HOLD
90		81/1	SP+0		33	66			boiragipara			
91	AP-82	82	SP+0	7°57'27"RT	30	30	3258		boiragipara	23°30'52.32"	91°20'54.28"	
92	AP-83	83	DP+0	45°00"RT	25	25	3288		boiragipara	23°30'53"	91°20'53.53"	
93	AP-84	84	SP+0	3°16'14"RT	35	35	3313		boiragipara	23°30'53.81"	91°20'53.52"	
94	AP-85	85	DP+0	16°51'57"RT	32	32	3348		boiragipara	23°30'54.95"	91°20'53.57"	
95	AP-86	86	SP+0	2°58'27"RT	55	55	3380		boiragipara	23°30'55.93"	91°20'53.95"	HOLD
96		86/1	SP+4		42	171		LT Line	boiragipara			HOLD
97		86/2	SP+2		32			11 KV, LT Line	boiragipara			HOLD
98		86/3	SP+0		42			VRD	boiragipara			HOLD
99	AP-87	87	DP+0	13°38'53"LT	49	49	3551	LT Line	boiragipara	23°31'1.059"	91°20'56.25"	HOLD
100	AP-88	88	DP+4	32°24'56"RT	39	39	3600		boiragipara	23°31'2.623"	91°20'56.51"	
101		88/1	SP+0		39	78						
102	AP-89	89	DP+0	20°37'39"LT	19	19	3678	SH-6, 11KV		23°31'4.527"	91°20'58.33"	HOLD
103	AP-90	90	SP+4	5°59'43"LT	34	34	3697			23°31'5.115"	91°20'58.56"	
104	AP-91	91	SP+0	7°52'28"LT	42	42	3731		scuth nalcha	23°31'6.191"	91°20'58.86"	



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एम.के.नाग / M. K. NAG  
APPROVED BY  
प्रबंधक / MANAGER  
पावरग्रिड / POWER GRID  
उ.पू.क्ष. लखनपुर / NER, UDAPUR



Sl. No.	AP No.	Lat	Long	DP	Angle	Dist	Dist	Dist	Remarks	Lat	Long	Remarks
153	AP-127	127	DP+4	4	21°52'47"LT			5603				
						41	41		SH-6, 11KV			JHOLD
154	AP-128	128	DP+4	4	13°44'23"RT			5644				JHOLD
						42			MRD, 2NOS 11KV			JHOLD
155		128/1	SP+6				70					JHOLD
						28			LT			JHOLD
156	AP-129	129	DP+0		30°59'40"RT			5714				JHOLD
						22	22		SH-6, 2NOS 11KV			JHOLD
157	AP-130	130	DP+4	4	52°44'35"LT			5736				JHOLD
						42	42		Road			JHOLD
158	AP-131	131	DP+0		14°13'22"RT			5778				JHOLD
						31	31					
159	AP-132	132	DP+0		33°20'53"LT			5810				
						49	49		Nala			JHOLD
160	AP-133	133	SP+0		4°38'8"RT			5858				JHOLD
						34	34		Road, 2 Nos Cable Line			JHOLD
161	AP-134	134	SP+0		5°24'14"RT			5893				JHOLD
						26	26		2 Nos LT Line			JHOLD
162	AP-135	135	DP+4	4	12°22'33"RT			5919				JHOLD
						44	44		Road, LT Line			JHOLD
163	AP-136	136	DP+4	4	21°38'36"RT			5962				JHOLD
						37	37		LT Line			JHOLD
164	AP-137	137	DP+4	4	25°30'38"LT			5999				JHOLD
						30	30		SH-6			JHOLD
165	AP-138	138	DP+4	4	18°31'20"RT			6029				JHOLD
						42						
166		138/1	SP+4	4								
167		138/2	SP+0									JHOLD
						42	126		11 KV			JHOLD
168	AP-139	139	DP+0		0°10'15"LT			6155				JHOLD
						40	40		132KV S/C			JHOLD
169	AP-140	140	DP+0		0°14'16"RT			6195				JHOLD
						42						
170		140/1	SP+0									
						42						
171		140/2	SP+0									
						42	108					
172		140/3	SP+0									
						42						
173	AP-141	141	SP+0		7°50"LT			6363				
						46	46		2 Nos GAS Line, 11 KV			
174	AP-142	142	SP+4	4	38°48'21"LT			6409				
						44	44		LT Line			
175	AP-143	143	DP+0		38°48'21"RT			6453				
						30	30		SH-6, LT Line			JHOLD
176	AP-144	144	DP+4	4	47°52'35"LT			6483				
						29	29		SH-6, 2 Nos LT Line			
177	AP-145	145	DP+0		31°45'34"RT			6512				
						36						
178		145/1	SP+0									
						36	72					
179	AP-146	146	DP+0		14°58'27"RT			6584				
						38	38					
180	AP-147	147	DP+4	4	15°49'16"LT			6623				JHOLD
						39	39		LT Line			JHOLD
181	AP-148	148	DP+0		18°28'25"LT			6662				
						36	36		LT Line			
182	AP-149	149	SP+0		9°31"LT			6698				
						40	40					
183	AP-150	150	SP+4	4	8°06"RT			6738				
						43	43		Brick Road LT Line			JHOLD
184	AP-151	151	FP+0		70°19'38"RT			6781				JHOLD
						20	20		SH-6			JHOLD
185	AP-152	152	FP+0		00°06'00"			6801				JHOLD
									NALCHAR S/S			JHOLD



SUBMITTED BY  
TECHNOFAB ENGINEERING LTD

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P.G.C.I.L.

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12/03/17  
(ART)

एन.के.नाग / M. K. NAG  
प्रबंधक / MANAGER  
पावरग्रिड / POWER GRID  
उ.पू.क्ष. उदयपुर / U.P. DIVISION, UDAIPUR

# POLE SUMMARY

## POLE SUMMARY DETAILS

TRIPURA STATE ASSOCIATED WITH NER POWER SYSTEM IMPROVEMENT PROJECT (DMS PACKAGE-03)

TRI-DMS-03 (3604) CC-CS/86-NER/REW-2986/1/G2/NOA-I/7168 & 7169 Date: 22.02.2017

LINE LINK: EXISTING 33/11 KV BISHRAMGANJ S/S TO PROPOSED 33/11 KV NALCHAR S/S

TOTAL LINE LENGTH: 9.144 km

S.No.	Type of Pole	Extension	Pole Qty	12 m Pole	14 m Pole	16 m Pole	Remarks
1	SP (GA-01)	0 m	80	80	0	16	
2		2 m	0				
3		4 m	16				
4	SP (GA-02)	0 m	29	29	0		
5		2 m	0			12	
6		4 m	12				
7	DP (GA-03)	0 m	88	176	4		
8		2 m	2			66	
9		4 m	33				
10	FP (GA-04)	0 m	8	32	0		
11		2 m	0			8	
12		4 m	2		4		
<b>TOTAL</b>				<b>317</b>	<b>4</b>	<b>102</b>	



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JnoFab Engineering Ltd.

*[Signature]*  
FIELD SUPERVISOR  
POWER GRID  
DIBYUDAI PUR  
PGCIL

*[Signature]*  
M. K. NAG  
MANAGER  
NER HDARBY  
PGCIL

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
1	BAY	BAY	FP+0		00°00'00"						23°35'57.74"	91°20'26.54"	
2	AP-1	1	DP+0		29°10'03"RT	27	27	27	ROAD	BISHRAMGANJ	23°35'58.59"	91°20'26.85"	
3	AP-2	2	DP+0		21°42'07"RT	31	73	100	ROAD	BISHRAMGANJ	23°35'59.28"	91°20'27.65"	Hold
4	AP-3	3	SP+4	4	01°33'11"LT	42		132	11 KV LINE	BISHRAMGANJ	23°35'59.75"	91°20'29.02"	
5	AP-4	4	DP+0		01°55'28"LT	32	32		LT LINE	BISHRAMGANJ	23°36'0.187"	91°20'30.07"	
6		LOC-4/1	SP+4	4		36		89	ROAD, LT LINE	BISHRAMGANJ			Hold
7	AP-5	5	DP+4	4	10°52'45"LT	33			LT LINE	BISHRAMGANJ	23°36'1.636"	91°20'31.89"	
8	AP-6	6	SP+0		01°21'07"RT	40	40	241	RAILWAY LINE	BISHRAMGANJ	23°36'2.653"	91°20'32.76"	
9	AP-7	7	DP+0		31°56'41"RT	34	34	275		BISHRAMGANJ	23°36'3.507"	91°20'33.52"	
10	AP-8	8	DP+0		29°54'49"RT	29	29	304	ROAD	BISHRAMGANJ	23°36'3.81"	91°20'34.51"	Hold
11	AP-9	9	DP+0		25°05'22"RT	29	29	333		BISHRAMGANJ	23°36'3.625"	91°20'35.5"	
12	AP-10	10	DP+0		16°45'01"LT	27	27	360		BISHRAMGANJ	23°36'3.83"	91°20'36.41"	
13	AP-11	11	SP+0		05°31'27"RT	24	24	384		BISHRAMGANJ	23°36'4.228"	91°20'37.15"	
14	AP-12	12	DP+0		11°40'12"RT	40	40	424		BISHRAMGANJ	23°36'4.762"	91°20'38.41"	
15		LOC-12/1	SP+0			45				BISHRAMGANJ			
16		LOC-12/2	SP+0			45	132		LT LINE	BISHRAMGANJ			Hold
17	AP-13	13	DP+4	4	28°21'49"LT	42		556	VRD	BISHRAMGANJ	23°36'5.753"	91°20'42.95"	Hold
18	AP-14	14	DP+0		23°47'03"LT	20	20	576		BISHRAMGANJ	23°36'6.181"	91°20'43.47"	
19		LOC-14/1	SP+0			41				BISHRAMGANJ			
20		LOC-14/2	SP+0			40	121			BISHRAMGANJ			
21	AP-15	15	DP+0		11°06'10"LT	40		697		BISHRAMGANJ	23°36'9.776"	91°20'45.26"	
22		LOC-15/1	SP+0			43				BISHRAMGANJ			
23	AP-16	16	DP+0		14°11'55"LT	42	85			BISHRAMGANJ	23°36'12.48"	91°20'45.97"	Hold
24	AP-17	17	DP+0		27°33'10"RT	19	19	801	ROAD	BISHRAMGANJ	23°36'13.1"	91°20'45.96"	
25	AP-18	18	SP+0		01°26'27"LT	26	26	827		BISHRAMGANJ	23°36'13.81"	91°20'46.38"	
26	AP-19	19	SP+0		02°53'54"LT	27	27	854		BISHRAMGANJ	23°36'14.63"	91°20'46.79"	
27	AP-20	20	DP+4	4	14°00'35"RT	24	24	878	CABLE	BISHRAMGANJ	23°36'15.35"	91°20'47.13"	
28	AP-21	21	DP+4	4	18°48'40"RT	42	42	920	3NOS LT LINE	BISHRAMGANJ	23°36'16.47"	91°20'48.07"	
29	AP-22	22	SP+4	4	03°55'28"RT	33	33	953	ROAD, 11 KV, LT LINE	BISHRAMGANJ	23°36'17.06"	91°20'49.05"	Hold
30	AP-23	23	DP+0		09°34'48"RT	23	23	976		BISHRAMGANJ	23°36'17.43"	91°20'49.75"	
31	AP-24	24	DP+0		22°24'10"LT	45	45	1021		BISHRAMGANJ	23°36'17.93"	91°20'51.26"	
32	AP-25	25	DP+4	4	11°29'48"LT	36	36	1057	11 KV LINE	BISHRAMGANJ	23°36'18.72"	91°20'52.21"	
33	AP-26	26	FP+4	4	58°19'28"RT	20	20	1077	ROAD, 2NOS 11 KV LINE	BISHRAMGANJ	23°36'19.25"	91°20'52.62"	
34	AP-27	27	DP+4	4	20°07'33"LT	22	22	1099	66 KV LINE	BISHRAMGANJ	23°36'19.19"	91°20'53.4"	Hold
35	AP-28	28	FP+0		75°11'12"RT	16	16	1115		BISHRAMGANJ	23°36'19.32"	91°20'53.93"	
36	AP-29	29	SP+0		02°52'28"LT	24	24	1139		BISHRAMGANJ	23°36'18.65"	91°20'54.36"	
37	AP-30	30	SP+0		01°35'47"LT	30	30	1169		BISHRAMGANJ	23°36'17.84"	91°20'54.93"	
38	AP-31	31	DP+4	4	10°47'03"LT	30	30	1199	VRD, LT LINE	BISHRAMGANJ	23°36'17.03"	91°20'55.54"	
39	AP-32	32	DP+0		08°26'05"RT	21	21	1220	ROAD	BISHRAMGANJ	23°36'16.55"	91°20'56.08"	Hold
40	AP-33	33	SP+0		01°02'59"LT	27	27	1247		BISHRAMGANJ	23°36'15.84"	91°20'56.65"	



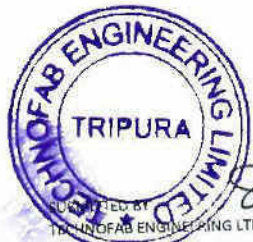
*Signature*

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 P.G.C.A.L.

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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
41		LOC-33/1	SP+0			30	60		BRICK ROAD	BISHRAMGANJ			H/L
42	AP-34	34	DP+4	4	18°31'17"RT	28		1307	LT LINE	BISHRAMGANJ	23°36'14.39"	91°20'57.9"	
43	AP-35	35	DP+4	4	27°31'14"RT	27		1335	ROAD, 11 KV. LT LINE	BISHRAMGANJ	23°36'13.55"	91°20'58.23"	
44	AP-36	36	DP+4	4	11°07'39"LT	36		1362		BISHRAMGANJ	23°36'12.67"	91°20'58.1"	
45		LOC-36/1	SP+0			35	106			BISHRAMGANJ			
46		LOC-36/2	SP+0			35				BISHRAMGANJ			
47	AP-37	37	DP+0		16°44'13"RT	25	25	1468		BISHRAMGANJ	23°36'9.233"	91°20'58.32"	
48	AP-38	38	DP+0		14°44'37"RT	41		1493		BISHRAMGANJ	23°36'8.45"	91°20'58.12"	
49		LOC-38/1	SP+0			40	81			BISHRAMGANJ			
50	AP-39	39	DP+0		03°13'11"LT	25	25	1574		BISHRAMGANJ	23°36'6.128"	91°20'56.77"	
51	AP-40	40	DP+0		01°00'18"RT	42		1599	LT LINE	BISHRAMGANJ	23°36'5.376"	91°20'56.39"	H/L
52		LOC-40/1	SP+4	4		41	83		VRD	BISHRAMGANJ			
53	AP-41	41	DP+0		02°36'09"LT	35		1682		BISHRAMGANJ	23°36'2.957"	91°20'55.12"	
54		LOC-41/1	SP+0			35	100			BISHRAMGANJ			
55		LOC-41/2	SP+4	4		30			LT LINE	BISHRAMGANJ	23°36'0.017"	91°20'53.74"	H/L
56	AP-42	42	DP+0		08°56'34"RT	40	40	1782		BISHRAMGANJ	23°35'58.9"	91°20'52.98"	H/L
57	AP-43	43	FP+0		31°10'10"LT	33	33	1822	RAILWAY LINE	BISHRAMGANJ	23°35'57.83"	91°20'52.96"	H/L
58	AP-44	44	FP+0		23°15'03"RT	40		1855		BISHRAMGANJ			
59		LOC-44/1	SP+0			35	115		LT LINE	BISHRAMGANJ			H/L
60		LOC-44/2	SP+4	4		40				BISHRAMGANJ			
61	AP-45	45	DP+4	4	04°29'22"RT	26	26	1970	11 KV. LT LINE	PADHMA NAGAR	23°35'54.46"	91°20'51.31"	H/L
62	AP-46	46	DP+0		03°50'06"LT	28	28	1996		PADHMA NAGAR	23°35'53.71"	91°20'50.86"	
63	AP-47	47	DP+0		14°25'55"RT	41		2024	VRD	PADHMA NAGAR	23°35'52.89"	91°20'50.45"	H/L
64		LOC-47/1	SP+0			41	82			PADHMA NAGAR			
65	AP-48	48	DP+4	4	69°30'47"LT	18	18	2106	ROAD, 11 KV LINE	PADHMA NAGAR	23°35'50.82"	91°20'48.6"	H/L
66	AP-49	49	DP+4	4	49°11'06"RT	24	24	2124	LT LINE	PADHMA NAGAR	23°35'50.27"	91°20'48.82"	
67	AP-50	50	DP+4	4	03°16'44"RT	24	24	2148	ROAD, 11 KV LINE	PADHMA NAGAR	23°35'49.58"	91°20'48.41"	H/L
68	AP-51	51	DP+4	4	25°37'33"LT	40	40	2172		PADHMA NAGAR	23°35'48.93"	91°20'47.96"	
69	AP-52	52	DP+0		13°49'34"RT	33	33	2212		PADHMA NAGAR	23°35'47.63"	91°20'47.76"	
70	AP-53	53	DP+4	4	08°41'44"LT	18	18	2245	ROAD, LT LINE	PADHMA NAGAR	23°35'46.65"	91°20'47.39"	H/L
71	AP-54	54	DP+0		59°02'29"RT	31	31	2263		PADHMA NAGAR	23°35'46.06"	91°20'47.25"	
72	AP-55	55	SP+0		09°13'21"LT	34	34	2294		PADHMA NAGAR	23°35'45.73"	91°20'46.2"	
73	AP-56	56	DP+0		08°26'52"LT	28	28	2328	ROAD	PADHMA NAGAR	23°35'45.19"	91°20'45.15"	H/L
74	AP-57	57	DP+0		34°24'06"LT	27		2356		PADHMA NAGAR	23°35'44.67"	91°20'44.38"	
75		LOC-57/1	SP+0			25	52			PADHMA NAGAR			
76	AP-58	58	DP+0		36°53'32"RT	43		2408		PADHMA NAGAR	23°35'43.03"	91°20'43.76"	
77		LOC-58/1	SP+0			43	86			PADHMA NAGAR			
78	AP-59	59	DP+0		28°50'15"LT	26	26	2494		PADHMA NAGAR	23°35'41.48"	91°20'41.28"	
79	AP-60	60	DP+0		16°40'02"LT	26	26	2520		PADHMA NAGAR	23°35'40.73"	91°20'40.86"	
80	AP-61	61	DP+0		06°07'19"LT	24	24	2546		PADHMA NAGAR	23°35'39.88"	91°20'40.7"	

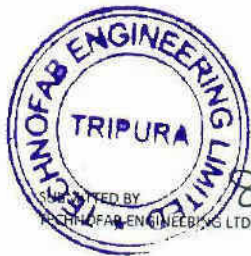


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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
81	AP-62	62	DP+0		09°49'15"LT			2570		PADHMA NAGAR	23°35'39.1"	91°20'40.64"	
82		LOC-62/1	SP+0			40				PADHMA NAGAR			
83		LOC-62/2	SP+4	4		41	113		VRD, LT LINE NALA	PADHMA NAGAR			Hold
84	AP-63	63	SP+0		01°39'31"RT	32		2683		PADHMA NAGAR	23°35'35.43"	91°20'41.04"	
85		LOC-63/1	SP+0			26	52			PADHMA NAGAR			
86	AP-64	64	DP+0		06°54'40"LT	26		2735		PADHMA NAGAR	23°35'33.74"	91°20'41.2"	
87	AP-65	65	DP+0		29°03'17"LT	25	25	2760		PADHMA NAGAR	23°35'32.93"	91°20'41.39"	
88	AP-66	66	DP+0		23°04'13"LT	26	26	2786		PADHMA NAGAR	23°35'32.29"	91°20'41.99"	
89	AP-67	67	DP+0		22°09'59"LT	27	27	2813		PADHMA NAGAR	23°35'31.91"	91°20'42.84"	
90	AP-68	68	DP+0		10°13'20"RT	26	26	2839		PADHMA NAGAR	23°35'31.85"	91°20'43.76"	
91	AP-69	69	DP+0		15°40'54"LT	24	24	2863		PADHMA NAGAR	23°35'31.66"	91°20'44.58"	
92		LOC-69/1	SP+0			27	54			PADHMA NAGAR			
93	AP-70	70	DP+0		05°27'35"RT	27		2917		PADHMA NAGAR	23°35'31.72"	91°20'46.48"	
94	AP-71	71	SP+0		00°5'01"RT	26	26	2943		PADHMA NAGAR	23°35'31.66"	91°20'47.4"	
95	AP-72	72	DP+0		15°24'01"RT	27	27	2970		PADHMA NAGAR	23°35'31.61"	91°20'48.32"	
96	AP-73	73	DP+0		18°04'34"RT	27	27	2997		PADHMA NAGAR	23°35'31.29"	91°20'49.17"	
97	AP-74	74	DP+0		37°26'55"RT	23	23	3020	ROAD	PADHMA NAGAR	23°35'30.88"	91°20'49.84"	Hold
98		LOC-74/1	SP+0			43				PADHMA NAGAR			
99		LOC-74/2	SP+0	S		43	130			PADHMA NAGAR			
100	AP-75	75	DP+0		28°42'45"RT	44		3150		PADHMA NAGAR	23°35'26.79"	91°20'51.06"	Hold
101	AP-76	76	DP+0		29°20'14"LT	21	21	3171	ROAD	PADHMA NAGAR	23°35'26.14"	91°20'50.89"	Hold
102		LOC-76/1	SP+0			40				PADHMA NAGAR			
103		LOC-76/2	SP+0			35	110			PADHMA NAGAR			
104	AP-77	77	DP+0		01°15'22"LT	35		3281		PADHMA NAGAR	23°35'22.71"	91°20'51.95"	
105		LOC-77/1	SP+0			36	77			PADHMA NAGAR			
106	AP-78	78	DP+0		13°49'51"RT	41		3358		PADHMA NAGAR	23°35'20.31"	91°20'52.76"	
107	AP-79	79	SP+4	4	06°01'11"LT	21	21	3379		PADHMA NAGAR	23°35'19.63"	91°20'52.8"	Hold
108	AP-80	80	DP+4	4	47°44'14"RT	26	26	3405	ROAD, 11 KV LINE	PADHMA NAGAR	23°35'18.78"	91°20'52.96"	Hold
109	AP-81	81	DP+0		22°49'08"LT	27	27	3432		PADHMA NAGAR	23°35'18.09"	91°20'52.36"	
110		LOC-81/1	SP+0			35				PADHMA NAGAR			
111		LOC-81/2	SP+0			35	103			PADHMA NAGAR			
112	AP-82	82	DP+0		09°02'50"LT	33		3535		PADHMA NAGAR	23°35'14.83"	91°20'51.38"	
113	AP-83	83	DP+0		01°55'50"LT	24	24	3559		PADHMA NAGAR	23°35'14.05"	91°20'51.29"	
114		LOC-83/1	SP+0			39				PADHMA NAGAR			
115	AP-84	84	DP+0		02°57'48"LT	38		3636		PADHMA NAGAR	23°35'11.55"	91°20'51.07"	
116		LOC-84/1	SP+0			37	77			PADHMA NAGAR			
117	AP-85	85	DP+0		03°22'05"RT	40		3713		PADHMA NAGAR	23°35'9.046"	91°20'51"	
118		LOC-85/1	SP+0			26				PADHMA NAGAR			
119	AP-86	86	DP+0		10°47'38"LT	25	51	3764	LT LINE	PADHMA NAGAR	23°35'7.387"	91°20'50.84"	Hold
120	AP-87	87	DP+4	4	30°39'28"RT	21	21	3785	ROAD, 11 KV LINE	PADHMA NAGAR	23°35'6.672"	91°20'50.92"	Hold



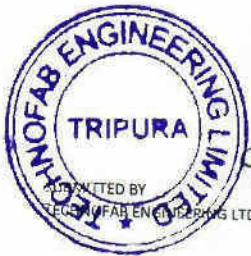
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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
121	AP-88	88	DP+4	4	37°24'27"LT			3808		PADHMA NAGAR	23°35'5.986"	91°20'50.58"	Hole
122		LOC-88/1	SP+0			27			LT LINE	PADHMA NAGAR			
123	AP-89	89	DP+4	4	04°33'37"LT	26		53		PADHMA NAGAR			
124	AP-90	90	SP+4	4	01°55'50"LT	29		3861	VRD 11 KV LINE	PADHMA NAGAR	23°35'4.3"	91°20'50.99"	
125		LOC-90/1	SP+0			42				PADHMA NAGAR	23°35'3.425"	91°20'51.28"	
126		LOC-90/2	SP+0			42				PADHMA NAGAR			
127	AP-91	91	DP+0		02°21'10"RT	43				PADHMA NAGAR			
128		LOC-91/1	SP+0			39		4017		PADHMA NAGAR	23°34'59.5"	91°20'52.67"	
129	AP-92	92	DP+0		02°47'17"RT	39				PADHMA NAGAR			
130	AP-93	93	DP+0		52°19'23"LT	30		4095		PADHMA NAGAR	23°34'57.04"	91°20'53.4"	
131	AP-94	94	DP+0		51°42'23"RT	35		4125		PADHMA NAGAR	23°34'56.1"	91°20'53.63"	
132	AP-95	95	FP+0		71°51'14"RT	23		4160		PADHMA NAGAR	23°34'55.62"	91°20'54.76"	
133		LOC-95/1	SP+0			36		4183		PADHMA NAGAR	23°34'54.88"	91°20'54.95"	
134	AP-96	96	DP+0		39°08'59"LT	36				PADHMA NAGAR			
135	AP-97	97	FP+0		67°45'18"RT	27		4255			23°34'53.65"	91°20'52.81"	
136		LOC-97/1	SP+4	4		35		4282			23°34'52.84"	91°20'52.5"	
137	AP-98	98	FP+0		89°34'41"LT	35			11 KV LINE				
138		LOC-98/1	SP+0			34		4352			23°34'52.71"	91°20'50.04"	
139	AP-99	99	DP+0		17°50'19"LT	34							
140		LOC-99/1	SP+0			33		4420			23°34'50.47"	91°20'50.14"	
141	AP-100	100	DP+0		35°12'47"RT	33			NALA				
142		LOC-100/1	SP+0			35		4486			23°34'48.5"	91°20'50.97"	
143		LOC-100/2	SP+0			36							
144	AP-101	101	DP+0		50°53'16"LT	35							
145	AP-102	102	SP+0		09°27'44"LT	26		4592			23°34'45.17"	91°20'50.03"	
146		LOC-102/1	SP+0			36		4618			23°34'44.49"	91°20'50.56"	
147		LOC-102/2	SP+0			36							
148	AP-103	103	DP+0		14°02'10"LT	40							
149	AP-104	104	SP+0		09°28'16"LT	23		4730			23°34'41.95"	91°20'53.38"	
150		LOC-104/1	SP+0			35		4763			23°34'41.57"	91°20'54.09"	
151		LOC-104/2	SP+0			35							
152	AP-105	105	DP+0		11°46'31"RT	36							
153	AP-106	106	DP+0		29°09'31"RT	22		4859			23°34'40.41"	91°20'57.6"	
154		LOC-106/1	SP+0			33		4881			23°34'40.02"	91°20'58.27"	
155		LOC-106/2	SP+0			35							
156	AP-107	107	DP+0		23°59'31"RT	34							
157	AP-108	108	SP+0		01°42'58"LT	25		4983			23°34'37.12"	91°21'0.042"	
158		LOC-108/1	SP+0			39		5008			23°34'36.3"	91°21'0.123"	
159		LOC-108/2	SP+0			34							
161	AP-109	109	DP+0		11°48'46"LT	35							
						27		5116			23°34'32.8"	91°21'0.52"	

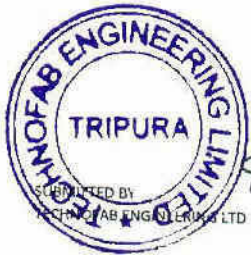


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SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
162	AP-110	110	DP+0		33°05'30"LT			5143			23°34'31.96"	91°21'0.812"	
163	AP-111	111	SP+0		04°16'04"LT	23	23	5166			23°34'31.48"	91°21'1.453"	
164	AP-112	112	DP+0		16°39'06"LT	26	26	5192			23°34'31"	91°21'2.2"	
165		LOC-112/1	SP+0			40							
166	AP-113	113	SP+0		02°29'04"RT	40	80	5272			23°34'30.18"	91°21'4.89"	
167	AP-114	114	DP+0		20°15'47"RT	25	25	5297			23°34'29.9"	91°21'5.705"	
168	AP-115	115	DP+0		12°01'08"RT	24	24	5321			23°34'29.38"	91°21'6.346"	
169		LOC-115/1	SP+0			44							
170		LOC-115/2	SP+0			44	132						
171	AP-116	116	DP+0		03°05'33"LT	44		5453			23°34'25.97"	91°21'9.14"	
172		LOC-116/1	SP+0			40	80						
173	AP-117	117	DP+0		16°49'13"RT	40		5533			23°34'23.97"	91°21'10.96"	
174	AP-118	118	SP+0		09°58'02"RT	26	26	5559			23°34'23.19"	91°21'11.32"	
175		LOC-118/1	SP+0			25							
176	AP-119	119	DP+0		17°13'35"RT	25	50	5609			23°34'21.6"	91°21'11.73"	
177	AP-120	120	DP+0		23°43'37"RT	25	25	5634			23°34'20.79"	91°21'11.67"	
178		LOC-120/1	SP+0			32							
179	AP-121	121	DP+0		23°43'37"LT	27	59						
180	AP-122	122	DP+4	4	14°45'15"RT	25	25	5693	ROAD		23°34'19.09"	91°21'10.7"	
181		LOC-122/1	SP+4	4		36		5718	LT LINE, VRD		23°34'18.28"	91°21'10.64"	
182		LOC-122/2	SP+0			35	142		11 KV LINE				Hold
183		LOC-122/3	SP+0			35							
184	AP-123	123	DP+0		01°13'40"RT	36		5860		BAIRAGI	23°34'13.9"	91°21'9.044"	
185		LOC-123/1	SP+0			25	51			BAIRAGI			
186	AP-124	124	SP+0		09°58'57"LT	26		5911		BAIRAGI	23°34'12.34"	91°21'8.428"	
187		LOC-124/1	SP+0			38	76			BAIRAGI			
188	AP-125	125	DP+0		06°48'04"LT	38		5987		BAIRAGI	23°34'9.898"	91°21'7.965"	
189		LOC-125/1	SP+0			30				BAIRAGI			
190		LOC-125/2	SP+0			30	91			BAIRAGI			
191	AP-126	126	DP+4	4	12°11'57"LT	31		6078	ROAD, 11 KV LINE	BAIRAGI	23°34'6.938"	91°21'7.79"	Hold
192	AP-127	127	SP+4	4	09°17'42"RT	27	27	6105		BAIRAGI	23°34'6.062"	91°21'7.942"	
193		LOC-127/1	SP+0			44				BAIRAGI			
194		LOC-127/2	SP+0			44	132			BAIRAGI			
195	AP-128	128	SP+0		05°37'54"LT	44		6237		BAIRAGI	23°34'1.77"	91°21'7.926"	
196		LOC-128/1	SP+0			36	72			BAIRAGI			
197	AP-129	129	DP+4	4	11°56'08"LT	36		6309	ROAD, 11 KV, LT LINE, NALA	BAIRAGI	23°33'59.43"	91°21'8.166"	Hold
198	AP-130	130	SP+4	4	09°51'23"RT	21	21	6330		BAIRAGI	23°33'58.78"	91°21'8.386"	
199	AP-131	131	DP+0		16°54'24"LT	25	25	6355		BAIRAGI	23°33'57.97"	91°21'8.502"	
200	AP-132	132	SP+0		08°12'16"LT	27	27	6382		BAIRAGI	23°33'57.16"	91°21'8.9"	
201		LOC-132/1	SP+0			39				BAIRAGI			
202		LOC-132/2	SP+0			39	119			BAIRAGI			
203	AP-133	133	SP+0		04°28'48"RT	41		6501		BAIRAGI	23°33'53.9"	91°21'11.16"	



*Sanjeev Jaiswal*

*Rajeev Sinha*  
 फील्ड सुपरवाइजर / FIELD SUPERVISOR  
 पावर ग्रीड / POWER GRID  
 चेक करवाया / CHECKED BY P.G.C.I.L. / NER, UDAIPUR

*M. K. NAG*  
 प्रबंधक / MANAGER  
 पावर ग्रीड / POWER GRID  
 उ.पू.के.एच.एच.यपुर / NER, UDAIPUR

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
204	AP-134	134	DP+2	2	34°03'23"RT	26		6529		BAIRAGI	23°33'53.09"	91°21'11.63"	
205	AP-135	135	DP+2	2	15°09'56"LT	36		6555	ROAD, 11 KV LINE	BAIRAGI	23°33'52.25"	91°21'11.53"	Hold
206		LOC-135/1	SP+0			35				BAIRAGI			
207		LOC-135/2	SP+0			36	107			BAIRAGI			
208	AP-136	136	SP+0		08°35'01"RT	26		6662		BAIRAGI	23°33'48.81"	91°21'12.14"	
209	AP-137	137	DP+4	4	56°49'17"LT	31		6688		BAIRAGI	23°33'47.96"	91°21'12.15"	Hold
210	AP-138	138	DP+0		40°52'34"RT	20		6719	ROAD, 11 KV LINE	BAIRAGI	23°33'47.42"	91°21'13.07"	Hold
211	AP-139	139	DP+0		33°36'52"LT	40		6739		BAIRAGI	23°33'46.97"	91°21'13.22"	
212		LOC-139/1	SP+4	4		40				BAIRAGI			Hold
213		LOC-139/2	SP+0			36	116		LT LINE	BAIRAGI			Hold
214	AP-140	140	DP+0		12°57'10"RT	44		6855		BAIRAGI	23°33'44.56"	91°21'16.35"	
215	AP-141	141	SP+0		0°47'54"RT	43		6899		BAIRAGI	23°33'43.43"	91°21'17.28"	
216	AP-142	142	DP+0		12°30'02"RT	41		6942		BAIRAGI	23°33'42.34"	91°21'18.21"	
217		LOC-142/1	SP+0			41							
218		LOC-142/2	SP+0			41	123		VRD, NALA				Hold
219	AP-143	143	DP+0		04°38'54"RT	45		7065			23°33'38.72"	91°21'20.09"	
220		LOC-143/1	SP+4	4		44			VRD	NALCHAR			Hold
221		LOC-143/2	SP+0			45	179		LT LINE	NALCHAR			
222		LOC-143/3	SP+0			45				NALCHAR			
223	AP-144	144	DP+4	4	32°04'41"RT	42		7244		NALCHAR	23°33'33.28"	91°21'22.35"	
224	AP-145	145	SP+4	4	02°24'51"LT	43		7286	ROAD, 11 KV LINE	NALCHAR	23°33'31.88"	91°21'22.05"	Hold
225		LOC-145/1	SP+4	4		43			LT LINE	NALCHAR			
226		LOC-145/2	SP+4	4		43			2 NOS LT LINE	NALCHAR			
227		LOC-145/3	SP+0			43			VRD	NALCHAR			
228		LOC-145/4	DP+0			43	342			NALCHAR			
229		LOC-145/5	SP+0	0		42				NALCHAR			
230		LOC-145/6	SP+4	4		43			2 NOS 11 KV, LT LINE	NALCHAR			Hold
231		LOC-145/7	SP+0			42				NALCHAR			
232	AP-146	146	SP+0		02°24'51"LT	42		7626		NALCHAR	23°33'20.87"	91°21'20.21"	
233	AP-147	147	DP+4	4	09°43'46"LT	40		7670		NALCHAR	23°33'19.5"	91°21'20.09"	
234	AP-148	148	SP+4	4	07°41'13"LT	34		7710	3NOS LT LINE	NALCHAR	23°33'18.2"	91°21'20.21"	Hold
235	AP-149	149	DP+4	4	10°57'21"LT	28		7744		NALCHAR	23°33'17.13"	91°21'20.47"	Hold
236	AP-150	150	DP+0		19°12'03"RT	45		7772	VRD, 11 KV LINE	NALCHAR	23°33'16.29"	91°21'20.87"	Hold
237	AP-151	151	DP+4	4	20°39'32"RT	36		7817		NALCHAR	23°33'14.8"	91°21'20.99"	
238		LOC-151/1	SP+0			36	72		LT LINE	NALCHAR			
239	AP-152	152	SP+4	4	01°48'13"LT	38		7889		NALCHAR	23°33'12.55"	91°21'20.28"	
240	AP-153	153	SP+4	4	09°16'05"LT	39		7927	LT LINE	NALCHAR	23°33'11.34"	91°21'19.94"	Hold
241	AP-154	154	SP+0		04°55'42"RT	43		7966		NALCHAR	23°33'10.07"	91°21'19.81"	
242	AP-155	155	DP+0		10°11'03"RT	45		8009		NALCHAR	23°33'8.709"	91°21'19.55"	
243		LOC-155/1	SP+4	4		45				NALCHAR			
244		LOC-155/2	SP+4	4		44	179		VRD, LT LINE	NALCHAR			Hold
245		LOC-155/3	SP+0			45				NALCHAR			
246	AP-156	156	SP+0		03°48'24"RT	43		8188	VRD	NALCHAR	23°33'9.257"	91°21'17.36"	Hold



*Signature*

*Raja Sinha*  
 फील्ड सुपरवाइजर / FIELD SUPERVISOR  
 पावर ग्रिड / POWER GRID  
 उ.पु.क्ष. उदयपुर / NER, UDAIPUR  
 P.G.C.I.L.

*Signature*  
 एम.के.नाग / M. K. NAG  
 प्रबंधक / MANAGER  
 पावरग्रिड / POWER GRID  
 उ.पु.क्ष. उदयपुर / NER, UDAIPUR  
 P.G.C.I.L.

SL. NO	AP NO	POLE NO.	TYPE OF POLE	EXT. (M)	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTV. LENGTH	CROSSING	VILLAGE NAME	GPS CO-ORDINATE(WGS-84)		REMARKS
											NORTHING	EASTING	
247	AP-157	157	DP+4	4	43°12'36"LT	41	41	8231	ROAD, 11 KV LINE	NALCHAR	23°33'1.983"	91°21'16.74"	} Hold
248	AP-158	158	SP+4	4	09°26'16"RT	41	8272	VRD, 2NOS LT LINE	NALCHAR	23°33'0.72"	91°21'17.22"		
249		LOC-158/1	SP+4	4		40			NALCHAR				
250		LOC-158/2	SP+0			40	121		NALCHAR				
251	AP-159	159	DP+0		05°49'47"RT	42		9393		NALCHAR	23°32'56.82"	91°21'17.93"	
252		LOC-159/1	SP+0			43			NALCHAR				
253		LOC-159/2	SP+0			42			NALCHAR				
254		LOC-159/3	DP+0			42	253		NALCHAR				
255		LOC-159/4	SP+0			42			NALCHAR				
256		LOC-159/5	SP+0			42			NALCHAR				
257	AP-160	160	SP+4	4	01°48'09"LT	23	23	8646	ROAD, 11 KV LINE	NALCHAR	23°32'48.6"	91°21'18.53"	} Hold
258	AP-161	161	DP+4	4	12°07'59"LT	41	41	8669	2NOS LT LINE	NALCHAR	23°32'47.86"	91°21'18.61"	
259	AP-162	162	DP+4	4	11°57'07"LT	32	93	8710		NALCHAR	23°32'46.59"	91°21'19.05"	
260		LOC-162/1	SP+0			30			NALCHAR				
261		LOC-162/2	SP+0			31			NALA	NALCHAR			} Hold
262	AP-163	163	SP+0		04°08'59"RT	31	31	8603		NALCHAR	23°32'43.98"	91°21'20.67"	
263	AP-164	164	DP+0		21°10'24"RT	45	45	8834		NALCHAR	23°32'43.07"	91°21'21.14"	
264	AP-165	165	SP+0		03°03'26"RT	43	85	8879		NALCHAR	23°32'41.58"	91°21'21.26"	
265		LOC-165/1	SP+0			42			NALCHAR				
266	AP-166	166	SP+0		08°34'19"LT	44	44	8964	VRD	NALCHAR	23°32'38.82"	91°21'21.53"	} Hold
267	AP-167	167	DP+4	4	16°43'42"LT	43	43	9008	ROAD, 11 KV, LT LINE	NALCHAR	23°32'37.42"	91°21'21.6"	
268	AP-168	168	DP+4	4	14°11'17"RT	40	80	9051	11KV, LT LINE, VRD	NALCHAR	23°32'36.16"	91°21'22.28"	
269		LOC-168/1	SP+4	4		40			2NOS 11 KV LINE	NALCHAR			
270	AP-169	169	FP+4	4	77°15'13"LT	40	40	9131		NALCHAR	23°32'33.63"	91°21'22.91"	
271	AP-170	170	FP+0		00°00'00"	40	40	9171		NALCHAR	23°32'33.61"	91°21'24.25"	

pole, schedule with normal pole (torn) and wires are within the permissible limit of angle of deviation & within permissible limit of individual span are approved.   
 Held all road crossing spans power line crossing span, railway line crossing river crossing etc. & span having angle of individual span limit violation.

Detail profile to be submitted for the above crossing.

M/s Technofab may be instructed accordingly.

M/s Technofab to submit the detail profiles at the earliest.   
 21/10/2017   
 15/10/17



SUBMITTED BY  
 TECHNIFAB ENGINEERING LTD

*Handwritten signature*

*Rajiv Sinha*  
 फील्ड सुपरवाइजर / FIELD SUPERVISOR  
 पावर ग्रिड / POWER GRID  
 उदयपुर क्षेत्र / UDAYPUR / NER, UDAIPUR  
 CHECKED BY  
 P.G.C.I.L.

एम के नान / M. K. NAG  
 प्रबंधक / MANAGER  
 APPROVED BY  
 पावरग्रिड / POWER GRID  
 उ.पू.क्षे., उदयपुर / NER, UDAIPUR

LINE-IN

**POLE SUMMARY DETAILS**

Tripura State Associated with NER Power System Improvement Project (DMS PACKAGE 04)			
CC-CS/86-NER/REW-2985/1/G2/NOA - I & II / 7145 & 7146 Dated- 20/01/2017			
LINK NAME :- LILO OF EXISTING SURAJMANI NAGAR TO TAKARJALA LINE AT GABARDI ( LINE IN FROM SURAJMANI NAGAR)			
TOTAL LINE LENGTH - .624 KM			
SL NO.	TYPE OF POLE	POLE HEIGHT	POLE QT.
1	SP (GA-01)	12 M	4
3	SP (GA-02)	12 M	3
4	SP	14.5 M	0
5	DP(GA-03)	12 M	5
6	DP	14.5 M	0
7	FP(GA-04)	12 M	2
8	FP	14.5 M	2
9	SP	12 M+ 1M EXTENTION	0
10	SP	14.5 M+ 1M EXTENTION	0
11	DP	12 M+ 1M EXTENTION	0
12	DP	14.5 M+ 1M EXTENTION	0
13	FP	12 M+ 1M EXTENTION	0
14	FP	14.5 M+ 1M EXTENTION	0
<b>TOTAL LOCATION</b>			<b>16</b>

*[Signature]*  
FIELD ENGINEER  
POWER DIV.  
AGARTALA / NER, Agartala

*[Signature]*  
SMDP Form  
TRIPURA ENGINEERING LIMITED & TRIPURA



LINE-OUT

POLE SUMMARY DETAILS				
Tripura State Associated with NER Power System Improvement Project (DMS PACKAGE 04)				
CC-CS/86-NER/REW-2985/1/G2/NOA - I & II / 7145 & 7146 Dated- 20/01/2017				
LINK NAME :- LILO OF EXISTING SURAJMANI NAGAR TO TAKARJALA LINE AT GABARDI (LINE OUT TAKARJALA)				
TOTAL LINE LENGTH - .807 KM				
SL NO.	TYPE OF POLE	POLE HEIGHT	POLE QT.	
1	SP (GA-01)	12 M		
3	SP (GA-02)	12 M	1	
4	SP	14.5 M	2	
5	DP(GA-03)	12 M	8	
6	DP	14.5 M	3	
7	FP(GA-04)	12 M	2	
8	FP	14.5 M	1	
9	SP	12 M+ 1M EXTENSION	1	
10	SP	14.5 M+ 1M EXTENSION	2	
11	DP	12 M+ 1M EXTENSION	1	
12	DP	14.5 M+ 1M EXTENSION	2	
13	FP	12 M+ 1M EXTENSION		
14	FP	14.5 M+ 1M EXTENSION	0	
<b>TOTAL LOCATION</b>			<b>23</b>	

*(Signature)*  
 3.5.2017  
 बिहार इलेक्ट्रिसिटी / FIELD ENGINEER  
 बिहार इलेक्ट्रिसिटी / POWER  
 बिहार इलेक्ट्रिसिटी / NER, AGARTALA

*(Signature)*  
 SANKU BACHAN  
 MANU  


DETAIL SURVEY POLE SCHEDULE  
LINE OUT TO GABARDI

SL.NO	AFTER DETAIL SURVEY POLE NO	PGCIL STANDARD POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SECTION. LENGTH	CUMLTV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
1	EXT.-1	GA-04.1/2	FP							12M
2	1	***	DP	23°13'24"LT	15	15	15			14.5M+1M ANGLE EXTENSION
3	2	***	DP	35°58'10"RT	20	20	35	Metal Road, 11Kv+LT Line		14.5M
4	3	GA-03	DP	11°19'57"LT	45	45	80	LT Line		12M
5	4	GA-02	SP	1°27'34"RT	45	45	125		SP WITH ANGLE	12M
6	5	**	SP	1°11'38"LT	42	42	167	Vill Road, LT Line		14.5M+1M ANGLE EXTENSION
7	6	**	SP	5°38'32"LT	42	42	209	Metal Road, 11Kv		14.5M
8	7	***	DP	19°31'51"RT	44	44	253	11Kv		14.5M+1M ANGLE EXTENSION
9	8	***	SP	5°19'49"LT	38	38	291	LT Line		12M+1M ANGLE EXTENSION
10	9	***	DP	21°0'52"RT	26	26	317	LT Line		14.5M
11	10	****	FP	102°28'31"LT	28	28	345			14.5M
12	11	***	DP	16°4'30"RT	30	30	375	Metal Road, LT Line		14.5M
13	12	**	SP	5°10'32"LT	39	39	414	LT Line		14.5M
					35	35	449		SP WITH ANGLE	12M+1M ANGLE EXTENSION



*Manoj Kumar*  
*Manoj Kumar*  
*Manoj Kumar*

ফিল্ড ইঞ্জিনিয়ার  
 পৌরসভা/POWER  
 উ.স.স., সরকার/NER, Agartala.  
 গণপ্রজাতন্ত্রী বাংলাদেশ  
 সরকার/NER, Agartala.  
 এঞ্জিনিয়ার/NER, Agartala.  
 এঞ্জিনিয়ার/NER, Agartala.  
 এঞ্জিনিয়ার/NER, Agartala.





**POLE SUMMARY DETAILS**

Tripura State Associated with NER Power System Improvement Project (DMS PACKAGE 04)

TRI-DMS-03(3604)CC-CS/86-NER/REW-2986/1/G2/NOA - I & II / 7168 & 7169 Dated- 22/02/2017

LINK NAME :-CHECHUA TO TAIDU

TOTAL LINE LENGTH:- 16.215KM.

SL NO.	TYPE OF POLE	POLE HEIGHT	POLE QT.
	SP (GA-01)	12 M	29
1	SP (GA-02)	12 M	111
2	SP	14.5 M	19
3	DP(GA-03)	12 M	221
4	DP	14.5 M	36
5	FP(GA-04)	12 M	15
6	FP	14.5 M	2
7	SP	12 M+ 1M EXTENTION	4
8	SP	14.5 M+ 1M EXTENTION	12
9	DP	12 M+ 1M EXTENTION	10
10	DP	14.5 M+ 1M EXTENTION	11
11	FP	12 M+ 1M EXTENTION	2
12	FP	14.5 M+ 1M EXTENTION	2
<b>TOTAL LOC</b>			<b>474</b>



*Signature*  
Sanku Bhowmik

*Signature*  
Manoj

कीलड डीपीएलर फील्ड एन्जिनियर  
पुनरुत्थान प्रकल्प  
उ.पू.के. अणुसंशोधन केंद्र, अगा.उ.के.







SL. NO	AFTER ROUT ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
64	AP-53	53	GA-02	SP+0	07°42'26"RT	33	33	2277		12 M
65	AP-54	54	GA-03	DP+0	13°00'02"LT	40	40	2317		12 M
66	AP-55	55	GA-02	SP+0	07°01'50"LT	29	29	2346	ROAD	12 M
67	AP-56	56	***	DP+0	15°21'31"LT	26	26	2372		14.5 M+1M ANGLE EXTENSION
68	AP-57	57	***	DP+0	23°10'26"RT	24	24	2396	VRD, 11 KV LINE	14.5 M+1M ANGLE EXTENSION
69	AP-58	58	GA-02	SP+0	08°57'11"LT	41	41	2437		12 M
70	AP-59	59	GA-02	SP+0	07°26'41"LT	45	45	2482		12 M
71	AP-60	60	GA-02	SP+0	02°08'51"RT	31	31	2513	VRD	12 M
72	AP-61	61	***	DP+0	15°23'44"LT	25	25	2538		14.5 M
73	AP-62	62	**	SP+0	02°14'17"RT	28	28	2566	11 KV LINE	12M+1M ANGLE EXTENSION
74	AP-63	63	***	DP+0	56°32'42"LT	31	31	2597	ROAD, 11 KV LINE	14.5 M
75	AP-64	64	GA-02	SP+0	02°40'05"RT	31	31	2628	ROAD	12 M
76	AP-65	65	GA-02	SP+0	05°42'38"LT	22	22	2650		12 M
77	AP-66	66	***	DP+0	22°21'12"RT	36	36	2686		14.5 M
78	AP-67	67	****	FP+0	60°44'08"RT	41	41	2727	2 NOS 11 KV LINE	12M+1M ANGLE EXTENSION
79	AP-68	68	***	DP+0	35°02'06"RT	30	30	2757		14.5 M
80	AP-69	69	GA-03	DP+0	43°48'12"LT	29	29	2786	ROAD, 11 KV LINE	12 M
81	AP-70	70	GA-03	DP+0	10°54'57"RT	26	26	2812		12 M
82	AP-71	71	GA-02	SP+0	05°45'05"RT	27	27	2839		12 M
83	AP-72	72	GA-02	SP+0	06°59'48"LT	40	40	2879		12 M
84	AP-73	73	GA-02	SP+0	07°03'37"LT	37	37	2916		12 M

*(Handwritten signature)*  
 MANAGER  
 POWER DIV.  
 WEST BENGAL STATE ELECTRICITY BOARD  
 CALCUTTA

*(Handwritten signature)*  
 MANAGER  
 POWER DIV.  
 WEST BENGAL STATE ELECTRICITY BOARD  
 CALCUTTA

*(Handwritten signature)*  
 MANAGER  
 POWER DIV.  
 WEST BENGAL STATE ELECTRICITY BOARD  
 CALCUTTA





SL. NO	AFTER ROUT ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
106	AP-90	90	GA-03	DP+0	19°39'14"LT	29	29	3665	ROAD	12 M
107	AP-91	91	GA-03	DP+0	51°54'40"LT	30	30	3695		12 M
108	AP-92	92	GA-02	SP+0	02°47'34"LT	25	25	3720	ROAD	12 M
109	AP-93	93	GA-03	DP+0	26°31'40"LT	26	26	3746		12 M
110	AP-94	94	GA-03	DP+0	18°35'25"LT	26	26	3772		12 M
111	AP-95	95	GA-02	SP+0	02°59'43"LT	26	26	3798		12 M
112	AP-96	96	**	SP+0	03°51'39"RT	26	26	3824	11 KV LINE	14.5 M
113	AP-97	97	GA-02	SP+0	08°51'49"RT	25	25	3849	11 KV LINE	12 M
114	AP-98	98	***	DP+0	13°15'50"RT	41	41	3890	NALA, 11 KV LINE	12M+1M ANGLE EXTENSION
115	AP-99	99	GA-03	DP+0	55°17'50"RT	44	44	3834		12 M
116	AP-100	100	GA-02	SP+0	03°48'51"LT	45	45	3979		12 M
117	AP-101	101	GA-02	SP+0	01°16'23"RT	35	35	4014		12 M
118	AP-102	102	***	DP+0	21°38'58"LT	32	32	4046	ROAD, 11 KV LINE	14.5 M
119	AP-103	103	GA-02	SP+0	08°50'34"LT	26	26	4072		12 M
120	AP-104	104	**	SP+0	04°32'33"RT	45	45	4117		14.5 M
121	AP-105	105	***	DP+0	23°07'43"RT	29	29	4146		14.5 M
122	AP-106	106	GA-03	DP+0	39°03'11"LT	26	26	4172		12 M
123	AP-107	107	**	SP+0	03°10'47"LT	31	31	4203		14.5 M+1M ANGLE EXTENSION
124	AP-108	108	***	DP+0	37°46'20"RT	42	42	4245	ROAD, 11 KV LINE	14.5 M
125	AP-109	109	GA-02	SP+0	06°00'32"RT	27	27	4272		12 M
126	AP-110	110	GA-03	DP+0	23°11'55"RT	27	27	4299		12 M

APPROVED  
SUPERVISOR  
PGCIL  
DATE: 10/05/2024

PGCIL  
SUPERVISOR  
PGCIL  
DATE: 10/05/2024



Sanjay Kumar  
SUPERVISOR  
PGCIL  
DATE: 10/05/2024





SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
148	AP-130	130	GA-03	DP+0	05°38'16"LT	45	45	5113		12 M
149	AP-131	131	GA-02	SP+0	05°38'16"RT	28	45	5158		12 M
150	AP-132	132	GA-03	DP+0	11°22'29"RT	29	28	5186		12 M
151	AP-133	133	GA-03	DP+0	12°07'45"RT	42	29	5215	11 KV LINE	12 M
152	AP-134	134	GA-02	SP+0	02°59'12"RT	30	42	5257		12 M
153	AP-135	135	GA-03	DP+0	16°28'53"RT	31	30	5287		12 M
154	AP-136	136	GA-02	SP+0	01°46'50"RT	32	31	5318		12 M
155	AP-137	137	GA-02	SP+0	08°00'27"LT	31	32	5350		12 M
156	AP-138	138	**	SP+0	08°29'18"LT	42	31	5381	ROAD, 11 KV LINE	14.5 M+1M ANGLE EXTENTION
157	AP-139	139	***	DP+0	13°45'39"LT	33	42	5423		14.5 M
158	AP-140	140	GA-03	DP+0	26°33'54"LT	45	33	5456		12 M
159	AP-141	141	GA-02	SP+0	09°27'44"LT	34	45	5501		12 M
160	AP-142	142	GA-02	SP+0	04°53'13"LT	36	34	5535		12 M
161		LOC-142/1	GA-01	SP+0		35	71		ROAD, 11 KV LINE	12 M
162	AP-143	143	GA-04	FP+0	71°52'41"RT	45	45	5606		12 M
163	AP-144	144	GA-03	DP+0	22°13'03"LT	32	45	5651		12 M
164	AP-145	145	GA-02	SP+0	08°44'46"LT	31	32	5683		12 M
165	AP-146	146	GA-03	DP+0	12°59'41"LT	31	31	5714		12 M
166	AP-147	147	***	DP+0	28°59'33"LT	30	31	5745		14.5 M
167	AP-148	148	***	DP+0	28°38'32"LT	31	30	5775	LT LINE	14.5 M
168	AP-149	149	***	DP+0	29°13'26"LT	45	31	5806	VRD	12M+1M ANGLE EXTENTION
169	AP-150	150	GA-02	SP+0	09°58'28"RT		45	5851		12 M

  
 Manoj Kumar  
 Sr. Engineer  
 T.S.E.C.L  
 Tripura  
 Technology Engineering Limited  
 Tripura

श्रीलक्ष्मी एन. ई. इंजीनियर  
 पंजीकृत  
 ए. ई. ई., अकरली, ने. ए. अकरली

श्रीलक्ष्मी एन. ई. इंजीनियर  
 पंजीकृत  
 ए. ई. ई., अकरली, ने. ए. अकरली  
 श्रीलक्ष्मी एन. ई. इंजीनियर  
 पंजीकृत  
 ए. ई. ई., अकरली, ने. ए. अकरली





DETAIL SURVEY POLE SCHEDULE

SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	REMARKS
213	AP-192	192	GA-03	DP+0	18°20'08"RT	34	34	7307	VRD	12 M
214	AP-193	193	GA-03	DP+0	34°26'29"RT	32	32	7339	ROAD	12 M
215	AP-194	194	GA-03	DP+0	32°13'53"LT	23	23	7362	11 KV LINE	14.5 M
216	AP-195	195	GA-03	DP+0	26°45'54"LT	24	24	7386	11 KV LINE	14.5 M
217	AP-196	196	GA-02	SP+0	01°33'31"RT	28	28	7414	LT LINE	12M+1M ANGLE EXTENSION
218	AP-197	197	GA-03	DP+0	10°58'34"RT	32	32	7446		12 M
219	AP-198	198	GA-02	SP+0	01°07'59"LT	27	27	7473		12 M
220	AP-199	199	GA-03	DP+0	10°47'44"LT	21	21	7494		12 M
221	AP-200	200	GA-03	DP+0	32°36'31"RT	70	70	7564	RIVER	12 M
222	AP-201	201	***	DP+0	23°11'12"RT	45	45	7609		12M+1M ANGLE EXTENSION
223	AP-202	202	***	DP+0	43°30'09"LT	27	27	7636	ROAD, LT	14.5 M
224		LOC-202/1	GA-01	SP+0		39				12 M
225		LOC-202/2	GA-01	SP+0		37	113			12 M
226	AP-203	203	***	SP+0	03°00'46"LT	35		7749		14.5 M+1M ANGLE EXTENSION
227	AP-204	204	***	DP+0	47°19'55"LT	35	35	7784	11 KV LINE	14.5 M+1M ANGLE EXTENSION
228	AP-205	205	***	DP+0	19°07'43"RT	31	31	7815	ROAD, LT LINE	12M+1M ANGLE EXTENSION
229		LOC-205/1	GA-01	SP+0		43				12 M
230	AP-206	206	GA-03	DP+0	25°23'41"RT	42		7900		12 M
231	AP-207	207	GA-02	SP+0	01°37'19"LT	27	27	7927	ROAD	12 M
232		LOC-207/1	GA-01	SP+0		41				12 M
233	AP-208	208	GA-03	DP+0	13°10'17"LT	41	82	8009	VRD	12 M

Handwritten notes and signatures in blue ink, including the name 'M. K. D.' and other illegible text.

Handwritten notes in blue ink, including the name 'M. K. D.' and other illegible text.

Handwritten signature 'M. K. D.' in blue ink.



SL. NO	AFTER ROUT ALIGNMENT NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
234	AP-209	209	GA-03	DP+0	30°50'33"RT	45	45	8054		12 M
235	AP-210	210	GA-03	DP+0	26°33'54"RT	28	28	8082		12 M
236	AP-211	211	***	DP+0	29°21'28"LT	33	33	8115		14.5 M
237	AP-212	212	***	DP+0	15°38'32"LT	31	31	8146	11 KV LINE	14.5 M
238	AP-213	213	GA-02	SP+0	06°49'16"RT	28	28	8178		12 M
239	AP-214	214	GA-03	DP+0	10°10'32"RT	28	28	8206	ROAD	12 M
240	AP-215	215	GA-03	DP+0	25°38'12"LT	43	43	8249		12 M

FIELD ENGINEER  
POWER  
PGCIL

31/5/16



M.A.



SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
262	AP-235	235	GA-03	DP+0	40°14'11"LT	29	29	9044		12 M
263	AP-236	236	GA-02	SP+0	03°20'36"LT	45	45	9089		12 M
264		LOC-236/1	GA-01	SP+0		45	90		ROAD	12 M
265	AP-237	237	GA-02	SP+0	04°35'19"RT	45		9179		12 M
266	AP-238	238	GA-03	DP+0	23°34'08"RT	31	31	9210		12 M
267	AP-239	239	GA-03	DP+0	30°51'03"LT	33	33	9243		12 M
268	AP-240	240	GA-03	DP+0	28°05'05"LT	35	35	9278		12 M
269	AP-241	241	GA-02	SP+0	09°44'10"LT	31	31	9309		12 M
270	AP-242	242	GA-02	SP+0	07°41'46"LT	33	33	9342	ROAD	12 M
271	AP-243	243	GA-03	DP+0	21°26'37"RT	35	35	9377		12 M
272	AP-244	244	GA-03	DP+0	45°26'29"RT	33	33	9410		12 M
273	AP-245	245	GA-03	DP+0	49°40'48"RT	34	34	9444		12 M
274	AP-246	246	GA-03	DP+0	10°45'45"RT	33	33	9477		12 M
275	AP-247	247	GA-04	FP+0	61°37'59"LT	31	31	9508		12 M
276	AP-248	248	GA-03	DP+0	26°01'47"LT	45	45	9553		12 M
277	AP-249	249	GA-03	DP+0	28°22'32"RT	35	35	9588		12 M
278	AP-250	250	GA-03	DP+0	42°45'07"LT	30	30	9618		12 M
279	AP-251	251	GA-02	SP+0	04°58'40"RT	28	28	9646	ROAD	12 M
280	AP-252	252	GA-03	DP+0	05°14'50"RT	45	45	9691		12 M
281	AP-253	253	GA-03	DP+0	40°53'16"RT	38	38	9729		12 M
282	AP-254	254	**	SP+0	09°04'55"RT	33	33	9762		14.5 M

  
 Mr. Pradyumn Kumar  
 Sr. Engineer / Sr. Manager  
 Jammu & Kashmir Power Corporation Ltd.  
 Jammu

  
 Mr. Pradyumn Kumar  
 Sr. Engineer / Sr. Manager  
 Jammu & Kashmir Power Corporation Ltd.  
 Jammu







SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	REMARKS
304	AP-275	275	GA-02	SP+0	04°51'58"LT	27	27	10474		12 M
305	AP-276	276	GA-04	FP+0	75°59'07"RT	31	31	10505		12 M
306	AP-277	277	GA-03	DP+0	25°06'34"LT	25	25	10530		12 M
307	AP-278	278	GA-03	DP+0	56°17'23"LT	28	28	10558	ROAD	12 M
308	AP-279	279	GA-04	FP+0	64°27'58"LT	27	27	10585	ROAD	12 M
309	AP-280	280	GA-02	SP+0	07°21'47"RT	44	44	10629		12 M
310	AP-281	281	GA-03	DP+0	27°12'22"RT	34	34	10663		12 M
311	AP-282	282	GA-02	SP+0	03°03'44"RT	45	45	10708		12 M
312	AP-283	283	GA-02	SP+0	01°54'33"LT	45	45	10753		12 M
313	AP-284	284	GA-03	DP+0	58°34'40"LT	45	45	10798		12 M
314	AP-285	285	GA-03	DP+0	10°01'59"RT	27	27	10825	ROAD	12 M
315	AP-286	286	GA-03	DP+0	03°27'06"RT	41	41	10866	ROAD	14.5 M
316	AP-287	287	DP+0	DP+0	50°42'38"RT	45	45	10911	ROAD, 11 KV LINE	14.5 M+1M ANGLE EXTENSION
317	AP-288	288	***	DP+0	14°02'10"RT	27	27	10938		14.5 M
318	AP-289	289	***	DP+0	26°33'54"LT	31	31	10969	11 KV LINE	14.5 M
319	AP-290	290	GA-02	SP+0	05°11'40"LT	45	45	11014		12 M
320	AP-291	291	GA-03	DP+0	14°30'49"LT	28	28	11042		12 M
321	AP-292	292	GA-03	DP+0	36°48'39"RT	35	35	11077		12 M
322	AP-293	293	GA-03	DP+0	15°09'40"LT	27	27	11104		12 M
323	AP-294	294	GA-03	DP+0	50°11'01"RT	29	29	11133		12 M
324	AP-295	295	GA-03	DP+0	14°22'35"RT	27	27	11160	ROAD	12 M
						45	45			

Checked by:   
 Date: 28/05/2024

M. K. DEBATHI  
 PROJECT MANAGER  
 STREET/NER, AGADALA

M. K. DEBATHI  
 FIELD ENGINEER  
 STREET/NER, AGADALA



M. K. DEBATHI





S.L. NO	AFTER ROUT ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
368	AP-336	336	GA-03	DP+0	47°07'16"LT	30	30	12622		12 M
369	AP-337	337	GA-03	DP+0	42°21'27"RT	29	29	12651		12 M
370	AP-338	338	GA-03	DP+0	17°11'23"RT	30	30	12681		12 M
371	AP-339	339	GA-03	DP+0	36°23'18"LT	31	31	12712		12 M
372	AP-340	340	GA-03	DP+0	50°05'37"RT	45	45	12757		12 M
373	AP-341	341	GA-03	DP+0	51°36'54"LT	29	29	12786		12 M
374	AP-342	342	GA-04	FP+0	66°42'56"RT	42	42	12828	ROAD	12 M
375		LOC-342/1	GA-01	SP+0		35	67			12 M
376	AP-343	343	GA-04	FP+0	63°28'50"LT	32		12895	ROAD	12 M
377	AP-344	344	GA-04	FP+0	66°30'18"RT	42	42	12937	ROAD	12 M
378	AP-345	345	GA-03	DP+0	49°47'01"LT	27	27	12964		12 M
379	AP-346	346	GA-02	SP+0	02°36'09"LT	36	36	13000		12 M
380	AP-347	347	GA-03	DP+0	57°25'33"LT	42	42	13042	ROAD, 11 KV LINE	12 M
381	AP-348	348	GA-03	DP+0	44°40'08"LT	29	29	13071		12 M
382	AP-349	349	GA-04	FP+0	61°51'30"RT	29	29	13100	11 KV LINE	12 M
383	AP-350	350	GA-02	SP+0	09°16'21"RT	28	28	13128		12 M
384	AP-351	351	GA-03	DP+0	31°00'09"LT	30	30	13158		12 M
385	AP-352	352	GA-03	DP+0	21°43'47"RT	30	30	13188	66 KV LINE	12 M
386	AP-353	353	GA-03	DP+0	38°03'42"RT	29	29	13217		12 M
387	AP-354	354	GA-03	DP+0	27°47'41"LT	28	28	13245		12 M
388	AP-355	355	GA-03	DP+0	16°55'26"LT	45	45	13290	11 KV LINE	12 M
389	AP-356	356	GA-02	SP+0	08°48'58"RT	45	45	13335		12 M

Handwritten signature and stamp of the Surveyor/Engineer. The stamp includes the name 'S. S. SINGH' and the title 'SURVEYOR/ENGINEER'. The text 'STATION/NER, Agatola' is also visible.

Handwritten signature and stamp of the Surveyor/Engineer. The stamp includes the name 'S. S. SINGH' and the title 'SURVEYOR/ENGINEER'. The text 'STATION/NER, Agatola' is also visible.

Handwritten signature 'Maha'.



SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLTY. LENGTH	CROSSING	REMARKS
390	AP-357	357	GA-03	DP+0	23°51'58"RT	42	42	13377		12 M
391	AP-358	358	GA-04	FP+0	66°55'47"RT	38	38	13415	11 KV LINE	12 M
392	AP-359	359	GA-03	DP+0	15°04'07"LT	30	30	13445	ROAD, 66 KV LINE	12 M
393	AP-360	360	GA-04	FP+0	68°35'29"LT	30	30	13475	ROAD	12 M
394	AP-361	361	GA-03	DP+0	25°26'01"LT	29	29	13504		12 M
395	AP-362	362	GA-03	DP+0	34°22'40"LT	28	28	13532		12 M
396	AP-363	363	GA-03	DP+0	32°26'01"RT	34	34	13566	ROAD, 66 KV LINE	12 M
397	AP-364	364	GA-03	DP+0	36°40'47"RT	30	30	13596	11 KV LINE	12 M
398	AP-365	365	GA-03	DP+0	35°22'00"RT	28	28	13624	ROAD	12 M
399	AP-366	366	GA-02	SP+0	06°00'32"LT	29	29	13653	11 KV LINE	12 M
400	AP-367	367	GA-03	DP+0	14°25'15"LT	29	29	13682	66 KV LINE	12 M
401	AP-368	368	GA-02	SP+0	08°46'40"LT	28	28	13710		12 M
402	AP-369	369	GA-03	DP+0	20°41'59"LT	33	33	13743		12 M
403	AP-370	370	GA-02	SP+0	06°29'35"RT	45	45	13788		12 M
404	AP-371	371	GA-04	FP+0	67°39'42"RT	45	45	13833	ROAD, 2 NOS LT LINE	12 M
405	AP-372	372	GA-02	SP+0	04°47'35"LT	41	41	13874	ROAD, LT LINE	14.5 M
406	AP-373	373	GA-03	DP+0	19°07'23"LT	35	35	13909		12 M
407	AP-374	374	GA-02	SP+0	09°12'09"LT	28	28	13937		12 M
408	AP-375	375	GA-03	DP+0	48°28'40"LT	30	30	13967		12 M
409	AP-376	376	GA-04	FP+0	60°13'52"LT	30	30	13997		12 M
410	AP-377	377	GA-03	DP+0	12°56'14"RT	35	35	14032	ROAD	12 M



*Signature*  
 Sanku Deb Nath  
 SANKU DEBNATH  
 DEPUTY MANAGER  
 POWER GRID  
 WEST BENGAL  
 3. 3. 2024

*Signature*  
 SANKU DEBNATH  
 DEPUTY MANAGER  
 POWER GRID  
 WEST BENGAL  
 3. 3. 2024



SL. NO	AFTER ROUT ALIGNMENT AP NO.	AFTER DETAIL SURVEY AP NO.	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTV. LENGTH	CROSSING	REMARKS
433	AP-399	399	GA-03	DP+0	38°28'49"LT	30	30	14831		12 M
434	AP-400	400	GA-02	SP+0	06°00'32"RT	29	29	14860		12 M
435	AP-401	401	GA-03	DP+0	20°43'32"RT	30	30	14890	ROAD	12 M
436	AP-402	402	GA-03	DP+0	17°30'30"RT	41	41	14931		12 M
437	AP-403	403	GA-03	DP+0	22°59'55"RT	33	33	14964		12 M
438	AP-404	404	GA-03	DP+0	10°47'31"LT	28	28	14992	LT LINE	12 M
439		LOC-404/1	GA-01	SP+0		41	83		11 KV LINE	12 M
440	AP-405	405	GA-03	DP+0	11°37'44"LT	42		15075		12 M
441	AP-406	406	GA-03	DP+0	24°37'25"RT	29	29	15104	ROAD	12 M
442	AP-407	407	GA-03	DP+0	15°26'25"RT	24	24	15128		12 M
443	AP-408	408	GA-03	DP+0	04°10'32"LT	64	64	15192	RIVER	12 M

HOLD

फील्ड इंजीनियर/फ़िल्ड एन्जिनियर  
पॉवरग्रिड डीप्ट. ऑफ़  
उ.पू.दे. अमरसिता/NER. ADD. 018.

15/12/24

PGCIL REGIONAL MANAGER  
POWER GRID  
अमरसिता/NER, Agartala.







DETAIL SURVEY POLE SEC DULE

OWNER:-T.S.E.C.L  
CLIENT:-PGCIL

SL. NO	AFTER ROUT ALIGNMENT AP. NO.	AFTER DETAIL SURVEY AP NO	PGCIL STANDER POLE TYPE	TYPE OF STRUCTURE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS
465	AP-429	429	GA-03	DP+0	20°36'12"RT	45	45	15914		12 M
466	AP-430	430	GA-02	SP+0	07°07'30"RT	42	42	15956	LT LINE	12 M
467	AP-431	431	GA-03	DP+0	21°54'11"LT	41	41	15997		12 M
468	AP-432	432	GA-03	DP+0	13°13'52"LT	42	42	16039	LT LINE	12 M
469	AP-433	433	GA-03	DP+0	40°16'37"LT	23	23	16062		12 M
470	AP-434	434	GA-03	DP+0	55°05'30"LT	25	25	16087	LT LINE	12 M
471		LOC-434/1	GA-01	SP+0		40	80		66 KV LINE	12 M
472	AP-435	435	GA-03	DP+0	56°26'54"RT	23	23	16167	NALA	12 M
473	AP-436	436	GA-03	DP+0	18°44'59"RT	25	25	16190		12 M
474	AP-437	437	GA-04	FP+0	00°00'00"	25	25	16215		12 M

Field

Handwritten signature and stamp:   
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Handwritten signature: *Ma...*

**POLE SUMMARY DETAILS**

Tripura State Associated with NER Power System Improvement Project (DMS PACKAGE 04)

CC-CS/86-NER/REW-29871/G2/NOA - I & II / 7147 & 7148 Dated- 20/01/2017

LINK NAME :- TELIAMURA EXISTING 132/33 KV S/S TO TAIDU

**TOTAL LINE LENGTH - 13.041KM**

SL NO.	TYPE OF POLE	POLE HEIGHT	POLE QT.
1	SP (GA-01)	12 M	44
3	SP (GA-02)	12 M	81
4	SP	14.5 M	9
5	DP(GA-03)	12 M	233
6	DP	14.5 M	19
7	FP(GA-04)	12 M	13
8	FP	14.5 M	2
9	SP	12 M+ 1M EXTENTION	3
10	SP	14.5 M+ 1M EXTENTION	10
11	DP	12 M+ 1M EXTENTION	12
12	DP	14.5 M+ 1M EXTENTION	10
13	FP	12 M+ 1M EXTENTION	1
14	FP	14.5 M+ 1M EXTENTION	1
<b>TOTAL LOCATION</b>			<b>438</b>



  
 को.स. इंजीनियरिंग लिमिटेड  
 फील्ड एंजिनियर  
 पॉवर सिस्टम/पावर सिस्टम  
 उ.स.स.स., आसतो/NER, आसतो.

SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
1	AP-1	AP-1	GA-04	FP+0	00°00'00"	22					12 M
2	AP-2	AP-2	****	FP+0	76°45'34"LT	28	22	22	2 NOS 11 KV LINE	1 M STEP DOWN	14.5 M+1M ANGLE EXTENSION
3	AP-3	AP-3	***	DP+0	20°24'36"LT	29	28	50	11 KV LINE	1 M STEP DOWN	14.5 M+1M ANGLE EXTENSION
4	AP-4	AP-4	**	SP+0	07°29'15"LT	12	29	79	11 KV, ROAD	1 M STEP DOWN	14.5 M+1M ANGLE EXTENSION
5	AP-3	AP-5	***	DP+0	13°09'27"LT	26	12	91			14.5 M+1M ANGLE EXTENSION
6		LOC-5/1	GA-01	SP+0		26					12 M
7	AP-5	AP-6	**	SP+0	07°05'45"RT	19	52	143	LT LINE		14.5 M
8	AP-6	AP-7	***	DP+0	37°54'15"RT	18	19	162			14.5 M
9		AP-8	GA-2	SP+0	03°23'21"RT	32	18	180			12 M
10		AP-9	GA-2	SP+0	05°59'25"RT	25	32	212			12 M
11		AP-10	**	SP+0	05°11'40"LT	27	25	237	LT LINE		14.5 M+1M ANGLE EXTENSION
12	AP-7	AP-11	***	DP+0	22°28'46"LT	28	27	264			12M + 1M ANGLE EXTENSION
13		AP-12	GA-3	DP+0	13°39'33"RT	26	28	292	ROAD		12 M
14	AP-8	AP-13	GA-3	DP+0	11°06'40"RT	28	26	318			12 M
15		LOC-13/1	GA-01	SP+0		28					12 M
16	AP-9	AP-14	GA-3	DP+0	13°16'55"RT	29	56	374			12 M
17		LOC-14/1	GA-01	SP+0		28	57				12 M
18	AP-10	AP-15	**	SP+0	03°08'48"LT	27		431	ROAD, LT LINE		14.5 M
19		AP-16	***	FP+0	67°36'05"LT	25	27	458	ROAD		12M + 1M ANGLE EXTENSION
20	AP-11	AP-17	GA-2	SP+0	02°02'43"RT	27	25	483			12 M
21		AP-18	GA-3	DP+0	13°47'58"LT	26	27	510			12 M
22	AP-12	AP-19	***	DP+0	13°47'58"RT	22	26	536	LT LINE		12M + 1M ANGLE EXTENSION
23	AP-13	AP-20	GA-3	DP+0	57°08'39"RT	26	22	558	ROAD		

Handwritten signature and stamp: **DR. MANA GARG**, **PGCIL**, **AG / POWER GRID**, **REGIONAL INR, AGRI**

Handwritten signature and stamp: **DR. MANA GARG**, **PGCIL**, **AG / POWER GRID**, **REGIONAL INR, AGRI**

Handwritten signature: **Subir**





SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
26	AP-15	AP-23	***	DP+0	48°45'06"LT	22	45	656	ROAD, 11 KV LINE		14.5 M+1M ANGLE EXTENTION
27		AP-24	***	DP+0	12°40'03"LT	45	22	678			14.5 M
28		AP-25	GA -04	FP+0	64°09'17"LT	21	45	723			12 M
29	AP-16	AP-26	**	SP+0	08°52'04"RT	32	21	744			14.5 M
30	AP-17	AP-27	GA-3	DP+0	25°17'31"RT	22	32	776			12 M
31		AP-28	GA-3	DP+0	16°33'25"LT	24	22	798			12 M
32		AP-29	***	DP+0	21°29'47"RT	26	24	822	ROAD, 11 KV LINE		14.5 M+1M ANGLE EXTENTION
33		AP-30	***	DP+0	37°50'40"LT	19	26	848			14.5 M
34		AP-31	***	DP+0	22°34'21"RT	29	19	867			14.5 M
35		LOC-31/1	*	SP+0		29					14.5 M
36		AP-32	***	DP+0	13°07'31"RT	26	58	925	11 KV LINE		14.5 M
37		AP-33	***	DP+0	19°43'40"RT	28	26	951	11 KV LINE		14.5 M
38	AP-19	AP-34	***	DP+0	40°06'47"LT	27	28	979	ROAD		12 M
39	AP-20	AP-35	GA-2	SP+0	01°50'51"LT	40	27	1006			12 M
40		35/1	GA-1	SP+0		40					12 M
41	AP-21	AP-36	GA-2	SP+0	00°24'55"LT	24	80	1086			12 M
42	AP-22	AP-37	GA-3	DP+0	17°15'10"RT	28	24	1110	400 KV LINE		12 M
43		AP-38	GA-3	DP+0	10°50'01"RT	45	28	1138			12 M
44		AP-39	GA-2	SP+0	06°29'43"LT	37	45	1183			12 M
45		AP-40	GA-3	DP+0	10°48'00"LT	41	37	1220			12 M
46		40/1	GA-1	SP+0		41					12 M
47		AP-41	GA-2	SP+0	03°27'53"LT	23	82	1302			12 M
48	24	AP-42	GA-3	DP+0	14°02'10"LT	21	23	1325	ROAD		12 M



Handwritten signatures and stamps in blue ink. One prominent signature reads 'S. DEBNATH'. Other text includes 'MANAGER', 'SUPERVISOR', and 'FIELD ENGINEER'. There are also some illegible handwritten notes and a small rectangular stamp.







SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER ROUTE SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULTY. LENGTH	CROSSING	REMARKS	POLE HEIGHT
94	AP-53	AP-84	GA-2	SP+0	08°58'21"LT	28	19	2772			12 M
95		AP-85	GA-2	SP+0	01°06'06"LT	45	28	2800			12 M
96		AP-86	**	SP+0	03°12'52"LT	30	45	2845			14.5 M
97		LOC-86/1	*	SP+0		30			LT LINE		14.5 M
98	AP-48	AP-87	**	SP+0	08°42'53"RT	39	60	2905	11 KV LINE	1 M STEP DOWN	14.5 M+1M ANGLE EXTENTION
99		87/1	*	SP+0		39					14.5 M+1M ANGLE EXTENTION
100	AP-51	AP-88	***	DP+0	19°49'45"RT	22	78	2983	ROAD, LT LINE		14.5 M
101		AP-89	***	DP+0	21°56'14"LT	25	22	3005			14.5 M
102		AP-90	**	SP+0	09°10'05"RT	38	25	3030	LT LINE		14.5 M+1M ANGLE EXTENTION
103		90/1	GA-1	SP+0		38					12 M
104		AP-91	GA-2	SP+0	00°08'56"LT	25	76	3106			12 M
105	AP-54	AP-92	GA-3	DP+0	10°29'29"RT	27	25	3131			12 M
106		AP-93	**	SP+0	07°03'28"LT	20	27	3158			12M + 1M ANGLE EXTENTION
107	AP-55	AP-94	***	DP+0	25°21'26"RT	25	20	3178	ROAD, LT LINE		12M + 1M ANGLE EXTENTION
108		AP-95	***	DP+0	51°34'14"LT	35	25	3203	ROAD, LT LINE		12M + 1M ANGLE EXTENTION
109		95/1	GA-1	SP+0		35					12 M
110		AP-96	GA-2	SP+0	01°12'01"LT	44	70	3273			12 M
111		96/1	GA-1	SP+0		44					12 M
112		96/2	GA-1	SP+0		44					12 M
113		AP-97	***	DP+0	28°30'58"LT	21	132	3405			12M + 1M ANGLE EXTENTION
114		AP-98	***	DP+0	26°15'16"RT	31	21	3426	ROAD, LT LINE		14.5 M
115	AP-58	AP-99	***	DP+0	12°43'44"RT	33	31	3457			14.5 M+1M ANGLE EXTENTION
116	AP-59	AP-100	GA-2	SP+0	07°41'42"RT	45	33	3490			12 M

Handwritten signature and stamp: **TECHNO FAB ENGINEERING TRIPURA**

Handwritten signature and stamp: **TECHNO FAB ENGINEERING TRIPURA**



SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMILTY. LENGTH	CROSSING	REMARKS	POLE HEIGHT
117		AP-101	***	DP+0	25°28'17"RT	17	45	3535	ROAD, LT LINE		12M + 1M ANGLE EXTENSION
118		AP-102	***	DP+0	13°18'49"LT		17	3552			12M + 1M ANGLE EXTENSION
119		AP-103	GA-2	SP+0	01°08'45"LT	23	23	3575			12 M
120	AP-60	AP-104	***	DP+0	14°23'00"LT	28	28	3603			12M + 1M ANGLE EXTENSION
121		AP-105	***	DP+0	37°10'06"RT	27	27	3630	ROAD, LT LINE		12M + 1M ANGLE EXTENSION
122		AP-106	GA-3	DP+0	11°37'00"RT	28	28	3658	LT LINE		12 M
123	AP-61	AP-107	GA-3	DP+0	20°38'59"LT	21	21	3679			12 M
124		AP-108	***	DP+0	10°06'29"RT	28	28	3707	LT LINE		12M + 1M ANGLE EXTENSION
125		108/1	GA-1	SP+0		39					12 M
126	AP-62	AP-109	**	SP+0	07°11'10"LT	39	78	3785	LT LINE		12M + 1M ANGLE EXTENSION
127	AP-63	AP-110	GA-3	DP+0	11°22'38"LT	31	31	3816			12 M
128	AP-64	AP-111	GA-3	DP+0	14°12'24"LT	27	27	3843			12 M
129		111/1	GA-1	SP+0		35					12 M
130		111/2	GA-1	SP+0		35					12 M
131	AP-65	AP-112	GA-3	DP+0	04°10'25"RT	36	106	3849			12 M
132		112/1	GA-1	SP+0		37					12 M
133	AP-66	AP-113	GA-3	DP+0	12°27'34"RT	37	74	4023			12 M
134		AP-114	GA-3	DP+0	31°15'22"LT	22	22	4045	ROAD		12 M
135		114/1	GA-1	SP+0		37					12 M
136	AP-67	AP-115	GA-2	SP+0	04°49'33"RT	37	74	4119			12 M
137	AP-68	AP-116	GA-3	DP+0	25°24'04"RT	26	26	4145	ROAD		12 M
138	AP-69	AP-117	GA-2	SP+0	07°33'23"LT	23	23	4168			12 M



*Handwritten signatures and initials are present over the stamp and in the right margin.*

*Handwritten notes and signatures in the right margin, including 'W. Prasad' and 'S. S. S.'.*





SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMLV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
183	AP-90	AP-154	GA-3	DP+0	11°18'38"RT	21	45	5608			12 M
184		AP-155	GA-3	DP+0	18°22'07"RT	26	21	5629			12 M
185	AP-91	AP-156	GA-3	DP+0	17°35'22"RT	35	26	5655			12 M
186		AP-157	GA-3	DP+0	10°36'43"LT	26	35	5690			12 M
187		AP-158	GA-3	DP+0	28°57'36"LT	27	26	5716			12 M
188	AP-92	AP-159	GA-3	DP+0	17°37'20"LT	34	27	5743			12 M
189		159/1	GA-1	SP+0		34					12 M
190	AP-93	AP-160	GA-3	DP+0	30°48'19"RT	25	68	5811			12 M
191		AP-161	GA-3	DP+0	20°42'36"RT	26	25	5836	ROAD		12 M
192		AP-162	GA-2	SP+0	02°11'31"RT	24	26	5862			12 M
193	AP-97	AP-163	GA-3	DP+0	10°05'28"LT	30	24	5886			12 M
194		AP-164	GA-3	DP+0	33°41'24"LT	28	30	5916			12 M
195	AP-98	AP-165	GA-2	SP+0	04°02'50"LT	45	28	5944			12 M
196		AP-166	GA-2	SP+0	02°33'34"RT	19	45	5989	ROAD		12 M
197	AP-99	AP-167	GA-3	DP+0	16°35'06"RT	45	19	6008			12 M
198		AP-168	GA-3	DP+0	20°30'03"LT	27	45	6053			12 M
199	AP-100	AP-169	GA-3	DP+0	15°46'39"LT	21	27	6080			12 M
200		AP-170	GA-3	DP+0	15°29'35"LT	28	21	6101			12 M
201		AP-171	GA-3	DP+0	18°42'19"RT	28	28	6129			12 M
202	AP-101	AP-172	GA-3	DP+0	24°58'37"RT	37	28	6157			12 M
203		172/1	GA-1	SP+0		37					12 M
204	AP-102	AP-173	GA-3	DP+0	24°58'37"RT	27	74	6231			12 M

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SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
205		AP-174	GA-2	SP+0	07°54'41"LT	35	27	6258			12 M
206		174/1	GA-1	SP+0		35					12 M
207	AP-104	AP-175	GA-3	DP+0	33°27'02"RT	35	70	6328			12 M
208	AP-105	AP-176	GA-3	DP+0	24°10'12"LT	32	32	6360			12 M
209		AP-177	GA-3	DP+0	30°35'14"RT	18	18	6378			12 M
210		177/1	GA-1	SP+0		35					12 M
211		177/2	GA-1	SP+0		35					12 M
212	AP-108	AP-178	GA-3	DP+0	26°38'32"LT	22	105	6483			12 M
213	AP-109	AP-178	GA-3	DP+0	17°49'08"LT	22	22	6505			12 M
214	AP-110	AP-180	GA-3	DP+0	11°45'32"LT	37	37	6542	ROAD		12 M
215		AP-181	GA-2	SP+0	00°33'48"LT	27	27	6569			12 M
216		AP-182	GA-3	DP+0	36°02'51"RT	23	23	6592	ROAD		12 M
217		182/1	GA-1	SP+0		32					12 M
218	AP-113	AP-183	GA-3	DP+0	17°06'10"RT	32	64	6656			12 M
219		183/1	GA-1	SP+0		25					12 M
220	AP-114	AP-184	GA-3	DP+0	26°22'31"LT	25	50	6706			12 M
221		AP-185	GA-2	SP+0	05°45'05"LT	43	43	6749			12 M
222	AP-115	AP-186	GA-2	SP+0	06°49'39"LT	26	26	6775			12 M
223	AP-116	AP-187	GA-3	DP+0	14°26'01"LT	23	23	6798			12 M
224		AP-188	GA-3	DP+0	12°47'12"RT	21	21	6819			12 M
225	AP-117	AP-189	GA-3	DP+0	13°52'18"LT	27	27	6846			12 M
226	AP-118	AP-190	GA-3	DP+0	16°36'08"LT	25	25	6871	66 KV LINE		12 M
227	AP-119	AP-191	GA-3	DP+0	34°40'26"RT	25	25	6896			12 M



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*[Handwritten signature]*

FIELD ENGINEER  
 POWER  
 T.S.E.C.L  
 TAIDU  
 132/33 KV S/S TO TAIDU















DETAIL SURVEY POLE SECDULE

SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMILTY. LENGTH	CROSSING	REMARKS	POLE HEIGHT
353		310/1	GA-1	SP+0		40					12 M
354		AP-311	GA-3	DP+0	19°39'14"RT	40	80	10552			12 M
355	AP-188	AP-312	GA-3	DP+0	16°51'06"RT	26	26	10578			12 M
356		AP-313	GA-3	DP+0	43°03'07"LT	19	19	10597	ROAD		12 M
357		AP-314	GA-3	DP+0	59°40'04"LT	27	27	10624			12 M
358	AP-189	AP-315	GA-3	DP+0	27°00'25"RT	20	20	10644	ROAD		12 M
359		AP-316	GA-2	SP+0	09°27'44"RT	26	26	10670			12 M
360	AP-190	AP-317	GA-3	DP+0	50°11'40"LT	28	28	10698			12 M
361		AP-318	GA-3	DP+0	30°20'36"LT	22	22	10720			12 M
362		AP-319	GA-04	FP+0	64°20'54"RT	17	17	10737			12 M
363		AP-320	GA-3	DP+0	51°19'24"RT	23	23	10760			12 M
364		AP-321	GA-3	DP+0	11°54'40"RT	23	23	10783			12 M
365		AP-322	GA-2	SP+0	04°47'51"RT	28	28	10811			12 M
366	AP-191	AP-323	GA-3	DP+0	34°07'44"RT	27	27	10838			12 M
367		AP-324	GA-3	DP+0	37°15'36"RT	45	45	10883			12 M
368	AP-193	AP-325	GA-3	DP+0	34°48'48"LT	28	28	10911			12 M
369		AP-326	GA-3	DP+0	12°51'29"RT	26	26	10937			12 M
370	AP-194	AP-327	GA-3	DP+0	20°46'20"LT	25	25	10962			12 M
371	AP-195	AP-328	GA-2	SP+0	07°59'06"LT	31	31	10993			12 M
372		AP-329	GA-3	DP+0	47°42'13"RT	45	45	11038			12 M
373	AP-196	AP-330	GA-3	DP+0	40°02'20"LT	22	22	11060	ROAD		12 M
374		AP-331	GA-3	DP+0	28°38'08"LT	21	21	11081			12 M

  
 कौल इंजीनियरिंग / FIELD ENGINEER  
 पॉवरग्रिड / POWER GRID  
 उ.पू.खे., अमरतला / NER, Agartala.







SL. NO	AFTER ROUTE ALIGNMENT AP. NO	AFTER DETAIL SURVEY AP. NO	PGCIL STANDARD POLE TYPE	TYPE OF POLE	ANGLE OF DEVIATION	SPAN	SEC. LENGTH	CUMULV. LENGTH	CROSSING	REMARKS	POLE HEIGHT
421	AP-227	AP-374	GA-3	DP+0	11°28'06"RT	39	78	12512			12 M
422	AP-228	AP-375	GA-2	SP+0	07°41'46"RT	27	27	12539			12 M
423	AP-229	AP-376	GA-3	DP+0	28°04'21"LT	25	25	12564			12 M
424	AP-230	AP-377	****	FP+0	61°12'40"RT	33	33	12597			14.5 M
425	AP-231	AP-378	****	FP+0	63°22'53"RT	56	56	12853	ROAD, 11 KV.		14.5 M
426	AP-232	AP-379	GA-3	DP+0	16°44'52"RT	26	26	12679	ROAD		12 M
427	AP-233	AP-380	***	DP+0	18°12'38"LT	26	26	12705			14.5 M
428	AP-234	AP-381	***	DP+0	38°16'21"LT	28	28	12733	ROAD, 11 KV		14.5 M + 1M ANGLE EXTENSION
429	AP-235	AP-382	***	DP+0	20°29'20"LT	24	24	12757	11 KV		14.5 M
430	AP-236	LOC-382/1	GA-01	SP+0		26					12 M
431	AP-237	AP-383	GA-3	DP+0	11°09'27"RT	27	53	12810			12 M
432	AP-238	AP-384	GA-2	SP+0	06°37'10"RT	25	25	12835			12 M
433	AP-239	LOC-384/1	GA-01	SP+0		28					12 M
434	AP-240	AP-385	***	DP+0	36°28'33"RT	28	56	12891	11 KV		12M + 1M ANGLE EXTENSION
435	AP-241	385/1	*	SP+0		41			ROAD, LT LINE		14.5 M
436	AP-242	385/2	*	SP+0		41			LT LINE		12M + 1M ANGLE EXTENSION
437	AP-243	AP-386	GA-3	DP+0	13°04'05"RT	42	124	13015	66 KV LINE		12 M
438	AP-244	AP-387	GA-04	FP+0	00°00'00"	26	26	13041	NALA		12 M

Handwritten notes and signatures in blue ink, including a signature and the text "FIELD ENGINEER / POWER" and "PGCIL".





***ANNEXURE - 4***

***DETAILS OF PUBLIC CONSULTATION***

# PROJECT SUMMARY



# প্রকল্পের সারমর্ম



In order to strengthen the power scenario of the North Eastern States including Tripura, the Government of India with the financial assistance of the WORLD BANK, has formulated the North Eastern Region Power System Improvement Project (NERPSIP) which envisages in construction of new power Sub-stations, Transmission & Distribution lines and simultaneously augmentation/expansion of the existing Sub-stations and Transmission lines.

## The NERPSIP in the state of Tripura broadly aims at:-

- Load enhancement of the transmission and distribution network of Tripura as well as reducing the transmission and distribution (T & D) loss.
- To adequately address the demand side management for ensuring adequate supply of electricity.

For implementation of project under North Eastern Region Power System Improvement Project (NERPSIP) construction of different 132 kV substation and transmission & distribution line have been planned to be taken up in this area. For construction of transmission line under this project, any damage caused will be compensated as per the Government norms.

We hope that implementation of the North Eastern Power System Improvement Project (NERPSIP) in the state of Tripura will definitely contribute in the socio-economic development of the state.

ত্রিপুরা সহ উত্তর-পূর্ব রাজ্যগুলির বিদ্যুৎ ব্যবস্থার উন্নতির জন্য ভারত সরকার-বিশ্বব্যাঙ্কের আর্থিক সহায়তায় উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) গঠন করেছে, যার মূল উদ্দেশ্য হল নতুন বিদ্যুৎ সাবস্টেশন, নতুন বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করা এবং পাশাপাশি বর্তমান সাবস্টেশন এবং লাইনগুলির ক্ষমতা বৃদ্ধি ও সম্প্রসারণ করা।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) ত্রিপুরাতে আনার উদ্দেশ্য হল :-

- বিদ্যুৎ পরিবাহী ও বন্টন লাইনের ক্ষমতা বৃদ্ধি করা তথা পরিবাহী ও বন্টন ব্যবস্থা অপচয় হ্রাস করা।
- চাহিদার উপযোগী বিদ্যুৎ যোগান দেওয়া।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্পের (NERPSIP) অধীনে ত্রিপুরা রাজ্যের প্রকল্প গুলি বাস্তবায়নের লক্ষে এই এলাকায় ১৩২ কেভি সাবস্টেশন, বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করার উদ্যোগ নেওয়া হয়েছে। এই প্রকল্পটি বাস্তবায়নে সরকারী নিয়ম অনুযায়ী নির্ধারিত ক্ষতিপূরণ প্রদান করা হবে।

আমরা আশা করি ত্রিপুরার সামাজিক ও অর্থনৈতিক উন্নয়নে উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) অনন্য অবদান রাখবে।

## DETAILS OF PUBLIC CONSULTATION MEETING/জন মন্তব্য সভার বিবরণ

<b>Subject/ বিষয়</b>
Construction of 132 kV Rabindranagar- Belonia Line ,132kV Rokhia - Rabindranagar Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project  NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV রবীন্দ্রনগর - বীলোনিয়া, 132kV রুখিয়া - রবীন্দ্রনগর পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
<b>Place of Meeting/সভার স্থান</b>
Kathalia RD Block(BDO Office Conference Hall)/ কাঠালিয়া ব্লক (BDO অফিস কনফারেন্স হল)
<b>Date of Meeting/সভার তারিখ</b>
30.08.2014 / ৩০.০৮.২০১৪
<b>Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম</b>
<b>A. <u>Tripura Government/ ত্রিপুরা সরকার</u></b> 1) Sh. Jayanta Bhattacharjee, BDO 2) Sh. Shaymal Chaka, Sonamora, MLA 3) Sh. Abdul Karim, Chairman 4) Sh. Ashok Chakraborty, Vice-Chairman 5) Sh. Narhari Tripura, BSE Chairman
<b>B. <u>TSECL Officials/ TSECL কর্মকর্তারা</u></b> 1. Sh. Ratan Das, DGM, TSECL
<b>c. <u>POWERGRID Officials/ পাওয়ার গ্রিড কর্মকর্তারা</u></b> 1. Sh. N. Dube, DGM, POWERGRID 2. Sh. D.N. Brahma, Chief Manager, POWERGRID 3. Sh. Uttam Debnath, Sr. Engineer, POWERGRID
<b>People present in the meeting/ সভায় উপস্থিত জনসাধারণ</b>
100-150 nos. of local village and some common public .(Attendance Sheet Enclosed) 100-150 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক ( উপস্থিত ব্যক্তিবর্গের সাক্ষর )

**Point addressed to the people/ জানা সাধারণের উদ্দেশ্য ভাসন:**

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT(NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM,TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি জেনারেল ম্যানেজার শ্রী রতন দাস মহাসয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যৎ বাবস্থা উন্নতিকরণ প্রকল্প(NERPSIP) সমন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন । তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিসয়, সমন্ধে সংক্ষিপ্ত জানামল্লানা উত্থাপন করলেন উপস্থিত জনসাধারণের উদ্দেশ্যে ।

**Response from Public/ জানা সাধারণের থেকে প্রতিক্রিয়া**

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ✓ Whether these lines are safe for the nearby dwellers without any problems of electrocution while working in the fields
- ✓ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings
- ✓ What about employment for local people and procedure for same
- ✓ What is the width of ROW for cutting trees? How much compensation for the trees will be given and when.

জনসাধারণের পক্ষ্য থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন । জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- এই লাইন এর জন্য নিকটবর্তী গ্রামবাসীরা তাদের জমিতে কাজ করার সময় তরিতাহত হয়ে কোনো ক্ষতিগ্রস্ত হবে কিনা ?
- ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?
- এই প্রকল্পের জন্য স্থানীয় মানুষ এর কর্মসংস্থান এবং নিয়োগ নীতির কি নিয়ম হবে ?
- লাইন বানানোর সময় গাছ কাটার করিডোর/প্রস্থ কি হবে ? কখন এবং কি পরিমাণ ক্ষতিপূরণ দেওয়া হবে গাছের জন্য ?

## Conclusion/ উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

In answer to the question of people officials of TSECL/POWERGRID response like

- Sufficient electrical clearance will be maintained while construction of these line and hence no electrocution while working in the field.
- For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be accrued while constructing the tower but sufficient surface compensation will be provided.
- Local people will be engaged during the construction of line and the engagement will be as per their skill.
- The width of ROW of cutting trees will be 27 M and sufficient compensation will be given as per the rate provided by district revenue authority during the construction.

The meeting has been concluded with a request to all public for their support in completion of the project.

তবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন ।

জনসাধারণের প্রশ্নের উত্তরে পবের্গির্দ/ ত্বেস্লে কৰ্মকৰ্তাৰা বলেন

- বিদ্যৎ পরিবাহী লাইন এবং বন্টন লাইন নির্মাণের সময় যথেষ্ট বৈদ্যুতিক ব্যবধান রক্ষণাবেক্ষণ করা হবে যাতে বিদ্যৎ পরিবাহী লাইন এবং বন্টন লাইন কাছাকাছি বা নিকটবর্তী মাঠে কাজ করা লোকদের কোনো তারিতাহতর সম্ভাবনা না থাকে ।
- ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে । টাওয়ার বানানোর জন্য কোনো জমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বানানোর ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে
- প্রকল্পের কাজের রূপায়নের সময় গ্রামের তথা স্থানীয় কারিগর/ শ্রমিক দের তাদের যুগ্যতা অনুযায়ী নিয়োগ করা হবে
- লাইন বানানোর সময় গাছ কাটার প্রস্থ হবে ২৭ মিটার এবং ক্ষতিগ্রস্ত গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে ।

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে

**TRIPURA STATE ELECTRICITY CORPORATION LTD**  
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting**  
**ATTENDENCE SHEET**

Construction of 132 kV Rabindranagar- Belonia Line ,132kV  
**Name of Line:-** Rokhia - Rabindranagar Line & associated distribution line

Date.....30.08.2014

Venue.....Kathalia RD Block

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Signature
1	Swapan K. Debbarh	Sonapur	Private factory	<i>[Signature]</i>
2	Moslem Mlo	K.K. Nagar	Agriculture	Moslem Mlo
3	Abdul Momin	Sonapur -	Business -	<i>[Signature]</i> 5/8/14
4	Jeparechandra Kar	Midayal -	Business -	<i>[Signature]</i>
5	Azizul Islam	Bejimatou	Business	<i>[Signature]</i>
6	সাহাওয়ান	Sonapur	partner	- সাহাওয়ান
7	Rafiqul Islam	Sonapur	Fishing	Rafiqul Islam
8	Hare Krishna Paul	Dham Pur	Sagalwar	<i>[Signature]</i>
9	Alikul Islam	উত্তর দোলাচপুর	Labours	<i>[Signature]</i>
10	Azad Miah	Sooimanakpur	Labours	<i>[Signature]</i>
(11)	Udohab Majumdar	উত্তর দোলাচপুর	Tutor	<i>[Signature]</i>

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**ATTENDANCE SHEET**

Construction of 132 kV Rabindranagar- Belonia Line, 132kV  
Rokhia - Rabindranagar Line & associated distribution lines

Name of Line:-

Date: 30.08.2014

Venue: Kathalia R.D. Block

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Signature
12	Bimal Suddas	Kathalia	Farmer	Bimal
13	Debashish Das	Nirroy Pur	Farmer	Debashish Das
14	Abul Kalam	K.K Nagar	Farmer	Abul Kalam
15	Subash Ch. Pal	R.K. Nagar	Farmer	Subash
16	Sanjay Nath	Nidaya	Farmer	Sanjay
17	Omprakash Das	Kathalia	Farmer	Omprakash
18	Manik Lal Das	Uttarpokharpur	Farmer	Manik Lal
19	Omprakash Das	Kathalia	Farmer	Omprakash
20	Komal Pal	D/Maheshpur	UP-Pradhan	Komal Pal
21	Omprakash Das	Nidaya	Farmer	Omprakash
22	Omprakash Das	Katelekhele	Farmer	Omprakash

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Date...30.08.2014

Venue...Kathalia R.D. Block

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Signature
23	Jahangir M Hossen	Kolapaniya	Business	Jahangir M Hossen
24	Hari Mohan Deb Nath	Induria	Farmers	Hari Mohan
25	Jagadish Neelja	Manai pathar	Vice chairman A-D-C	Jagadish
26	Abul Kishem	Rabindranagar	Cultivation.	Abul Kishem
27	Chitta Ranjan Das	Sovapur	parliament.	Chitta Ranjan Das
28	Matiya Khan	Sath pahar	House wife	Matiya Khan
29	Asneha Begam	Jatapur	H/worker	Asneha Begam
30	Prasanna Mea	Jatapur	S-W-	Prasanna Mea
31	Makhan Das	Bhadraul Pur	Farmer.	Makhan Das
32	Shambuchand	Bkabaripur	parliament.	Shambuchand
33	Jugolman Tripathi	Thal Bara	Vice Farmer	Jugolman Tripathi



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**Date:** 30.08.2014

**Venue:** Kathalia R.D. Block

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Signature
34	Swagatadey	V/Maheshpur	H/W.	Swagatadey
35	to m fl j p pt	Katekhalu	Farmer.	to m fl j p pt
36	paborsree	Manipathar	Farmer.	paborsree
37	George Lami Tripura	Kali Kala	Farmer	✓
38	Dhonyakoni Tripura	Jagatampur A.D. village Chair person	H/W	Del 30/8/14
39	Rita Das (Pal)	Maranchak	H/W.	Rita Das 30/8/14
40	Manju Begam	Dhanpur	H/W.	Manju Begam
41	Jesmin Sultana Sande Das	Bejimar	Z/P member	Jesmin Sultana
42	Sande Das	V/Paharpur	H/W.	Sande Das
43	Soma Majumdar	V/Maheshpur	H/W.	Soma Majumdar 30/8/14
44	Skakati Malla	V/Maheshpur	H/W.	Skakati Malla

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**Venue.....** Kathalia R.D. Block

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Signature
43	Chhabi Das, P. samy	Dejimanna	P. samy hi	Chhabi Das
44	Ratna Rani Bhowmik	Bar narayan	pradhan	Ratna Rani Bhowmik
47	Kakali Rani Shil	SovaPura	Pradhan	Kakali Rani Shil
48	Mursada Begam	বনিতাপুরা		Mursada Begam
49	Puspa Begam	Kalapunia		Puspa Begam.
50	Nirmena Begam	Kalapunia		Nirmena Begam.
51	Apu Majumder	Rabindra Nagar		Apu Majumder
52	Manika Begam	Rabindra nagar		Manika Begam

# PUBLIC CONSULTATION MEETING AT KATHALIA BLOCK ON 29/10/2014





