COMPENSATION PLAN FOR TEMPORARY DAMAGES (CPTD) FOR T & D NETWORK IN WEST GARO HILLS & SOUTH WEST GARO HILLS DISTRICT, MEGHALAYA



Environment and Social Management POWER GRID CORPORATION OF INDIA LTD.

For

Meghalaya Power Transmission Corporation Ltd. (MePTCL) & Meghalaya Power Distribution Corporation Ltd. (MePDCL)

MEGHALAYA-1/CPTD/R52018

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TABLE OF CONTENTS

SECTIO N	PARTICULARS	PAGE
	EXECUTIVE SUMMARY	I-VI
I	INTRODUCTION AND PROJECT DESCRIPTION	1-9
1.1	Project Background	1
1.2	Project Components	4
1.3	Objective of CPTD	6
1.4	Scope and Limitation of CPTD	6
1.5	Measures to Minimize Impact	7
1.6	Route Selection and Study of Alternatives	8
II	SOCIO-ECONOMIC INFORMATION AND PROFILE	10-16
2.1	General	10
2.2	Socio-Economic Profile	10
III	LEGAL & REGULATORY FRAMEWORK	17-22
3.1	Overview	17
3.2	Statutory Requirements	17
3.3	World Bank environment & Social Safeguard Policies	20
3.4	MePTCL/MePDCL's ESPPF	21
3.5	Basic Principles for the Project	22
IV	PROJECT IMPACTS	23-34
4.1	General	23
4.2	Impact Due to construction of Substation & Bay Extension	27
4.3	Temporary Impacts Caused due to Transmission Lines (Right of Way)	27
4.4	Details on Affected Persons	32
4.5	Other Damages	33
4.6	Impact on Indigenous Peoples	33
4.7	Summary Impacts	34
V	ENTITLEMENTS, ASSISTANCE AND BENEFITS	35-39
5.1	Entitlements	35
5.2	Entitlement Matrix	35
5.3	Procedure of Tree/crop compensation	36
5.4	Compensation for Structure	38
5.5	Compensation Disbursement Module	38
VI	INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION	40-42
6.1	Consultations	40
6.2	Plan for further Consultation and Community Participation during Project Implementation	41
6.3	Information Disclosure	42
VII	INSTITUTIONAL ARRANGEMENTS	43-46
7.1	Administrative Arrangement for Project Implementation	43
7.2	Review of Project Implementation Progress	44
7.3	Arrangement for Safeguard Implementation	45
7.4	Responsibility Matrix to manage RoW Compensation	46
VIII	GRIEVANCE REDRESS MECHANISMS	48-49
IX	BUDGET	50-52
9.1	Compensation for Land for Tower Base and RoW Corridor	51
9.2	Compensation for Crops & Trees	51
9.3	Summary of Budget	52
Х	IMPLEMENTATION SCHEDULE	53
XI	MONITORING AND REPORTING	54

TABLE	PARTICULAR	PAGE	
Table 2.1	Land Use Pattern in Meghalaya	10	
Table 2.2	Details of area, production and productivity of principle crops of District		
Table 2.3	Details on Total population	14	
Table 2.4	Details on Male & Female Population	15	
Table 2.5	Details of Percentage SC/ST	15	
Table 2.6	Literate & Illiterate Population	15	
Table 2.7	Details on Workers	16	
Table 2.8	Details on Households	16	
Table 3.1	World Bank's Operational Policies	20	
Table 4.1	Details of Substation	27	
Table 4.2	Type and Use of Land within Corridor of ROW (in Km/Hectare)	28	
Table 4.3	Estimation on Loss of Land for Crop Damage due to Overhead Lines	29	
Table 4.4	Estimation of Actual Loss of Land for Crop Tower Base & Pole	30	
Table 4.5	Land area for RoW Compensation	31	
Table 4.6	Loss of Trees	31	
Table 4.7	Loss of Other Assets	32	
Table 4.8	Number of Affected Persons	32	
Table 4.8	Summary Impacts	34	
Table 5.1	Entitlement Matrix	35	
Table 5.2	Compensation Disbursement Module	38	
Table 6.1	Details of Consultations	40	
Table 6.2	Plan for Future Consultations	41	
Table 7.1	Agencies Responsible for CPTD Implementation	46	
Table 9.1	Cost of Land Compensation for Tower Base & RoW Corridor	51	
Table 9.2	Compensation for Crops & Trees	51	
Table 9.3	Summary of Budget	52	
Table 10.1	Tentative Implementation Schedule	53	

LIST OF FIGURES

FIGURE	PARTICULAR	PAGE
Figure-1.1	Power Map along with Proposed Project	3
Figure-1.2	Proposed T & D Network in West Garo Hills & South West Garo Hills	5
-	District under NERPSIP	
Figure-4.1	Typical Plan of Transmission Line Tower Footing	25
Figure-4.2	33 kV line Depicting Base Area Impact	26
Figure-5.1	Tree/Crop Compensation Process	39
Figure-8.1	Flow Chart of Grievance Redress Mechanism	49
Figure-11.1	MePTCL/MePDCL Support Structure Safeguard Monitoring	54

LIST OF ANNEXURES

ANNEXURE	PARTICULAR
Annexure-1	Comparative details of Three Alternatives
Annexure-2	MoP Guidelines on RoW Compensation
Annexure-3	Tower/Pole Schedule of Proposed Lines
Annexure-4	NoC from Land owner/Headman/ Village Council
Annexure-5	Details of Public Consultation

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	:	MePTCL/MePDCL's Environmental and Social Policy & Procedures				
		Framework				
Gol	:	Government of India				
GRC	:	Grievance Redress Committee				
GRM		Grievance Redress Mechanism				
На	:	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				
MePDCL		Meghalaya Power Distribution Corporation Ltd.				
MePTCL		Meghalaya Power Transmission Corporation Ltd.				
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	
USD	:	United States Dollar	
WB	:	The Word Bank	

GLOSSARY

Regional Council/Autonomous District Council/ Village Council	:	An autonomous body/institution formed under the provisions of 6 th Schedule of Constitution of India which provides tribal people freedom to exercise legislative, judicial, executive and financial powers.
Village Headman	:	Elected head of the Village Council
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 Garo Hills & South West Garo Hills district of Meghalaya 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, Meghalaya Power Transmission Corporation Ltd. (MePTCL) & Meghalaya Power Distribution Corporation Ltd. (MePDCL)'s Environmental and Social Policy & Procedures Framework (ESPPF) and World Bank's Operational Policies.

ii. The project components include construction of one no. 132 kV D/C line of 50.1 km length & five new 33kV distribution lines of total 39.9 km length along with associated 132/33kV substation at Phulbari & 33/11 kV Rajballa Bhaitbari, Chibinang & Raksambre located in the West Garo Hills & South West Garo Hills districts of Meghalaya. 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. MePTCL/ MePDCL/ POWERGRID¹ 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 MePTCL & MePDCL/POWERGRID.

iii. The project components under the scope of present CPTD include following transmission/

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

distribution lines and associated substations;

A. Transmission System Components:

- 1. 132 kV D/C Phulbari Ampati line 50.1 km
- 2. Establishment of 132/33KV new substation at Phulbari
- 3. Extension of 132/33KV substation at Ampati.

B. Distribution System Components:

- 1. 33kV line from Phulbari 132/33kV substation(New) to 33/11 kV Rajballa Bhaitbari substation (New) **18.5 km**
- 2. 33kV line from Phulbari 132/33kV substation(New) to 33/11 kV Chibinang substation (New)
 2.0 km
- 3. 33kV line from 33/11kV Tikrila substation(Existing) to 33/11 kV Raksambre substation(New)
 11.0 km
- 33kV line from Phulbari 132/33 kV substation (New) to 33/11kV Phulbari substation (Existing)- 7.5 km
- 5. 33kV line from Phulbari 132/33kV substation (New) to point "X" at 33/11kV line Tikrila-Phulbari (Existing) (Patch Line) - **0.9 km**
- Reconductoring of 33kV Tikrila-Phulbari line (Existing) from point "X" to 33/11kV Tikrila substation (Existing) - 30.0km
- 7. Establishment of 33/11kV substation at Rajballa Bhaitbari, Chibinang & Raksambre
- 8. Bay Extension of existing Phulbari & Tikrila substation.

iv. As per existing law, land for tower/pole and right of way is not acquired² 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. In case of Autonomous District Council (ADC) area is involved, No Objection Certificate form concerned land owner/ Headman /Village Council shall be obtained. Most of the impacts are temporary in nature in terms of loss of standing crops/trees and other damages for which

² 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.

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. 375.70 acres. Total number of trees to be affected is 1116. Private trees will be compensated in cash as per the entitlement matrix. The total number of affected persons is estimated to be 960.

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 also MePTCL & MePDCL & 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 CPTD will be disclosed to the affected households and other stakeholders by placing it on website. MePTCL & MePDCL & 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 and 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 Committee (GRC) has been established at two places; project/scheme level and corporate/head quarter level. The GRCs include members from MePTCL & MePDCL, POWERGRID, Local Administration, Village Panchayat Members, Affected Persons representative and reputed persons from the society and representative from the 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 MePTCL & MePDCL'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, MePTCL & MePDCL'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. MePTCL & MePDCL /IA will provide compensation to all APs including non-title holders as already mentioned in the entitlement matrix.

SI.	Type of Issue/ Impact	Beneficiary	Entitlement Options
1.	Land area below	Owner	100% land cost at market value as ascertained by
	tower base <i>(</i> #)		revenue authorities or based on negotiated settlement
			without actual acquisition/title transfer.
2.	Land coming in	Owner	15% of land cost as decided by Deputy Commissioner
	corridor of width of		
	Right of Way (#)		
3.	Loss/damage to	Owner/	Compensation to actual cultivator at market rate for
	crops and trees in	Tenant/	crops and 8 years income for fruit bearing trees*. APs
	line corridor	sharecropper/	will be given advance notice to harvest their crops.
		leaseholder	All timber* will be allowed to retain by the owner.

E-1: Entitlement Matrix

SI.	Type of Issue/ Impact	Beneficiary	Entitlement Options		
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/	Individual/	Cash compensation plus Rs. 10000/- for construction		
	Cattle shed	Titleholders	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 APs3	One time additional lump sum assistance not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC.		
			recommendation of State Authonity/ADG/VC.		

(#) Compensation for land value as per MoP guidelines dated 15.10.2015 shall be paid once Govt. of Meghalaya 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 MePTCL & MePDCL/ POWERGRID and APs will be done and verified by revenue official for actual damages. Hence, compensation is paid parallely 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 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 1107.68 Lakhs equivalent to USD 1.846 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

CPTD for T & D Network in West Garo Hills & South West Garo Hills District, Meghalaya

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

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 MePTCL & MePDCL & IA. MePTCL & MePDCL/ POWERGRID will submit semi-annual monitoring reports on their implementation performance and submit the reports to The World Bank. If required, MePTCL & MePDCL / 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 Gol'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. Gol 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 (Gol) 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 Meghalaya. The project being funded on 50:50 (World Bank loan: Gol) basis except the component of capacity building for Rs.89 crore, which Gol 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, Gol 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 Meghalaya include construction of 416 km of 220/132 kV transmission lines & associated 4 nos. new substation and 198 ckm of 33 kV distribution lines & associated 11 nos. substation along with augmentation & strengthening of

transmission and sub-transmission spread across the State. The power map of Meghalaya 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 Extra High Voltage(EHV) & Distribution substations proposed in West Garo Hills & South West Garo Hills districts of Meghalaya State;

A. Transmission System:

- 1. 132 kV D/C Phulbari Ampati line **50.1 km**
- 2. Establishment of 132/33KV new substation at Phulbari
- 3. Extension of 132/33KV substation at Ampati.

B. Distribution System:

- 1. 33 kV line from Phulbari 132/33 kV substation(New) to 33/11 kV Rajballa Bhaitbari substation (New) **18.5 km**
- 33 kV line from Phulbari 132/33 kV substation(New) to 33/11 kV Chibinang substation (New) - 2.0 km
- 3. 33 kV line from 33/11 kV Tikrila substation(Existing) to 33/11 kV Raksambre substation(New) **11.0 km**
- 33 kV line from Phulbari 132/33 kV substation (New) to 33/11 kV Phulbari substation (Existing) - 7.5 km
- 33 kV line from Phulbari 132/33 kV substation (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) (Patch Line) - 0.9 km
- Reconductoring of 33 KV Tikrila-Phulbari line (Existing) from point "X" to 33/11 k Tikrila substation (Existing) - 30.0 km
- 7. Establishment of 33/11 kV substation at Rajballa Bhaitbari, Chibinang & Raksambre
- 8. Bay Extension of existing Phulbari & Tikrila substation.

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 Meghalaya along with proposed project



Figure 1.2. : Proposed T & D Network in West Garo Hills & South West Garo Hills District 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 15th October 2015 on RoW Compensation, MePTCL & MePDCL'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. MePTCL/ MePDCL/ POWERGRID⁴ provide compensation for actual damages after assessment by revenue survey is done progressively during the construction authority. Check 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 MePTCL & MePDCL/POWERGRID.

⁴ For the purpose of CPTD, MePTCL/ MePDCL 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, State Utilities/ 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 Meghalaya vide notification dated 5th February 2016, MePTCL & MePDCL 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, State Utilities/ 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, MePTCL & MePDCL /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, State Utilities have 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 Meghalaya and project districts in particular i.e. West Garo Hills & South West Garo Hills through which the various lines will traverse. It may be noted that South West Garo Hills, previously a part of West Garo Hills (Ampati Sub-division) became a district in year 2012 and hence socio economic information provided below for West Garo Hills also includes that of South West Garo Hills. Following section briefly discuss socio-economic profile.

2.2. Socio-Economic Profile

2.2.1. Land Use Pattern Meghalaya

21. Meghalaya has a geographic area of 2.24 million ha, which constitutes 6.82% of the country's total area. It is situated between latitude 24°58' N to 26°07' N and longitude 89° 48' E to 92° 51'E. The state has most of its land covered by hills interspersed with gorges and small valleys with elevation ranging between 150 m to 1,950 m. In terms of tribal composition, the state has three distinct regions, namely, Garo Hills, Khasi Hills and Jaintia Hills. The general land use pattern of the state is given in **Table 2.1**.

Land Use	Area in '000 ha	Percentage
Total geographical area	2,243	
Reporting area for land utilization	2,243	100.00
Forests	946	42.21
Not available for cultivation	239	10.66
Permanent pastures and other grazing lands	00	00
Land under misc. tree crops & groves	164	7.31
Culturable wasteland	391	17.44
Fallow lands other than current fallows	155	6.91
Current Fallows	60	2.67
Net area sown	285	12.71

Table-2.1 Land use Pattern

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

2.2.2 West Garo Hills District

22. The West Garo Hills district lies on the western part of the state of Meghalaya bounded by the East Garo Hills district on the east, the South Garo Hills on the south-east, the Goalpara district of Assam on the north and north-west and Bangladesh on the south. The district is situated between the latitude 26° N to 25°20' N and longitude of 90° 30' E to 89° 40'E. Total Geographic Area of the district is 3677 sq. km.

23. The district is mostly hilly with plains fringing the northern, western and the south-western borders. There are three important mountain ranges in the districts of Garo Hills.

- (a) Tura Range: This is one of the most important mountain ranges in the West Garo Hills. The Tura range is about 50 kms. long and extends in the east-west direction from Tura to Siju in the South Garo Hills district. The mountain peaks that are located in this range are Tura Peak, Nokrek Peak, Meminram Peak, Nengminjok Peak; Chitmang Peak The highest peak of this range is the Nokrek (1412 m.) lying 13 kms. South-east of Tura.
- (b) Arbella Range: Arbella Peak is 999 metres high. It lies on the northern side of Asananggre village on the Tura Guwahati road. Most of the peaks in this mountain range fall in the East Garo Hills district.
- (c) **Ranggira Range**: This mountain range lies on the western fringe of the district and ends in Hallidayganj village. The height of this peak is 673 metres.

24. There are 3 administrative sub-divisions, 8 blocks & 1537 revenue villages in the district. The district headquarters of West Garo Hills is Tura, which is the second largest town in the State after Shillong.

2.2.2.1 Climate

25. The climate of West Garo hills is largely controlled by South- West Monsoon and seasonal winds. The district being relatively lower in altitude to the rest of Meghalaya, experiences a fairly high temperature for most part of the year. The Monsoon usually starts by the third week of May and continues right to the end of September and sometimes well into the middle of October. The average rainfall in the State is 12,000 mm. There is a great variation of rainfall over central and southern Meghalaya. Mawsynram platform, receives the heaviest rainfall in the world. At Sohra (Cherrapunjee), the average annual rainfall is as high as 12000 millimetres, but Shillong located at a distance of about fifty kilometers from Sohra receives an average of 2200 mm of rainfall annually.

The average rainfall of West Garo Hills is around 3300 mm. The temperature in summer (April to October) is usually 15°Celcius minimum to 23°Celcius maximum and in winter (November to March) it is 03°Celcius Minimum to 15°Celcius Maximum. The temperature profile of project districts show similarity with state, however, district West Garo Hills being located at lower elevation is relatively warmer.

2.2.2.2 Water Resources:

26. The Tura range form watersheds in the West Garo Hills district, from which the rivers flows towards Bangladesh plains in the south and the Brahmaputra valley in the north and the west. . River Ganol or Kalu starts from Tura peak its chief tributaries are Dilni and Rongram rivers. River Didak stars from Anogre village and runs through Garo Hills district before it enters into Goalpara district. . The important rivers of West Garo Hills district are Someswari, Jinjiram, Kalu, Didak, Bogai, Ringai and Dareng. The availability of surface water has been roughly estimated at 63.204BCM by referring to data from various sources.

27. As the district is underlain by consolidated and semi-consolidated formations, the fractures and joints act as a good repository for the development of ground water. As per ground water resource estimation by CGWB, the stage of ground water development is only 0.59% and there is enough scope for future development of ground water resource in the district. The total annual ground water recharge in the West Garo Hills District is 28850 ham. Ground water development is being done through dug well and bore well in the intermontane valley. This is mainly used for domestic purposes such as washing and drinking. Springs can also play a major role in ground water development in the district. The whole district is categorised as "Safe".

2.2.2.3 Soil

28. The district shows different types of soil as the provenance differs widely. Red Gravelly Soil and Red Sandy Loam in the hilly slopes and Clayey Loam in the plains are the common soil types. The soils are acidic in nature and comparatively rich in organic matter and nitrogen but poor in phosphorous.

2.2.2.4 Ecological Resources

29. The district has mostly dense tropical mixed forest, and a small patch of temperate forest in the higher parts of the Tura range. The district is rich in forest resources. The important timbers available in the district are sal, teak, gamari, khokon, champa etc. The other major forest produces

are bamboo, cane, firewood, broomstick, thatching grass etc. The area under forests is 294600 ha. The types of forest prevalent in the district are Reserved Forests under the Forest Department and also Village Reserved Forests which are managed by the Garo Hills Autonomous District Council.

2.2.2.5 Crops

30. Agriculture is the main occupation of the people of West Garo Hills district and rice, maize, cashewnut, arecanut and turmeric are the principal crops. According to 2011 census, agriculture provides full time employment to 13.56 per cent of total workers. There are about 1, 20,740 cultivators and 39,725 agricultural labourers in the district. Heterogeneity in cultivation practices and diversity of cropping patterns are the important features of agriculture in the district. As per statistics, major area covered under rice and maize followed by rapeseed and mustard. However, among the horticultural crops, arecanut, pineapple and cashewnut are covered major portion of area in the district. Details of area, production and productivity of principle crops are given below in **Table 2.2**.

SI.	Name of the Crop	Area (Ha.)	Production(MT)	Productivity (kg/ha.)
1	Rice	28198	68623	2434
2	Maize	2834	4917	1735
3	Millets	950	506	533
4	Ginger	2271	11452	5043
5	Rape & Mustard	3953	7831	1981
6	Areca nut	4274	7929	1855
7	Sweet Potato	376	1187	3157
8	Banana	1503	18198	12108
9	Cashew nut	3353	7851	10
10	Pineapple	3523	29008	8234
11	Oranges	1555	3375	2170

Table- 2.2 : Details of area, production and productivity of principle crops of District

Source: District Statistical Handbook, 2015, West Garo Hills.

2.2.2.6 Human and Economic Development

31. West Garo Hills district has total Geographic Area of 3677 sq km, including the area of newly created South West Garo Hills. As per 2011 census, total population of the district is 6,43,291. Around 84% population of the district lives in rural areas. The district is predominantly inhabitated by Schedule Tribes, who constitutes 73.68% of the total population. The district has a healthy sex ratio of 945 females for 1000 males, which is better than corresponding National figures of 940. The literacy rate of the district is 55.7%. The district derives its name from Garo community, who are the main inhabitants of the district. Garo community is a matrilineal society,

which may be one of reason for the healthy sex ratio of the district.

The economic status of the district is primarily driven by Agriculture and assistance schemes of Central and local government. Agriculture remains the main profession/source of livelihood for the local community. Poultry, Dairy Farming and Beekeeping are also practiced. However, the presence of industries other than Tourism is negligible by and large. Among several factors, lack of reliable power may be one of the reasons for the dismal growth of the industries.

2.2.3 Demography Features

2.2.3.1. Total Population

32. Total population in Meghalaya stands at 29,66,889 of which 23,71,439 (79.93%) population belong to rural area and 5,95,450 (20.07%) population belong to urban area. The West Garo Hills district has a total of 6,43,291 population of which is the most populous district of Meghalaya constituting 21.68% of State's population. The rural and urban population constitute 88.36% and 11.64% of total populations of the district. Details are given in **Table 2.3**.

Name/Particulars	Total Population	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Meghalaya	29,66,889	23,71,439	5,95,450	79.93	20.07
West Garo Hills	6,43,291	5,68,433	74,848	88.36	11.64

Table 2.3: Details on Total Population

Source: Census of India, 2011

2.2.3.2 Male and Female Population

33. Out of total population 29,66,889 of the State, male population constitutes 14,91,832 (50.27%) and female population is 14,75,057 (49.73%). Total population in West Garo Hills district stands at 6,43,291of which male population stands at 3,24,159 (51.41%) and female population stands at 3,19,132 (48.59%). The sex ratio of the district stands at 945 females per thousand male which is lower than State's average of 989. Details are given in **Table 2.4**.

Name	Total	Total Male	Total	Percentage	Percentage	Sex
/Particulars	Population		Female	(Male)	(Female)	Ratio
Meghalaya	29,66,889	14,91,832	14,75,057	50.27	49.73	989
West Garo Hills	6,43,291	3,24,159	3,19,132	51.41	48.59	945

 Table 2.4: Details on Male/ Female Population

Source: Census of India, 2011

2.2.3.3 Scheduled Caste (SC) and Scheduled Tribe (ST) Population

34. As per census 2011, the Scheduled Caste (SC) & Scheduled Tribe (ST) population of the State stands at 17,355 (0.89%) and 25,55,861 (86.14%) respectively. The West Garo Hills district has a total SC population of 8,810 (1.37%) and ST population of 4,74,009 (73.68%). Details are given in **Table 2.5**.

Name/ Particulars	Total Population	Total SC Population	Percentage of SC Population	Total ST Population	Percentage of ST Population
Meghalaya	29,66,889	17,355	0.89	25,55,861	86.14
West Garo Hills	6,43,291	8,810	1.37	4,74,009	73.68

 Table 2.5: Details on Percentage SC/ST

Source: Census of India, 2011

2.2.3.4 Literacy

35. The literacy rate of West Garo Hills district stands at 55.76 % which is slightly lower than State's average. However, the female literacy rate of the district is higher than State's literacy rate. Details are given in **Table 2.6**.

Table 2.6 : Literate and Illiterate Population

Name/Particulars	Total Population	Total Literate	Percentage of Literate	Percentage (Male)	Percentage (Female)
Meghalaya	29,66,889	17,85,005	60.16	51.20	48.80
West Garo Hills	6,43,291	3,58,702	55.76	53.92	46.08`

Source: Census of India, 2011

2.3.3.5. Total Workers (Male and Female)

36. Total population into work in Meghalaya stands at 11,85,619 of which total Male (work) population stands at 7,03,709 (59.35%) and total female (Work) population stands at 4,81,910 (40.65%). The West Garo Hills district has a total work population of 2,55,693 of which total Male (work) population stands at 1,51,914 (59.41%) and total female (Work) population stands at 1,03,779 (40.59%). Details are given in **Table 2.7**.

Name/ Particulars	Total Population (Work)	Total Male (Work)	Total Female (Work)	Percentage (Male)	Percentage (Female)
Meghalaya	11,85,619	7,03,709	4,81,910	59.35	40.65
West Garo Hills	2,55,693	1,51,914	1,03,779	59.41	40.59

Table 2.7: Details on Workers

Source: Census of India, 2011

2.3.3.6 Households

37. Total Households in Meghalaya stands at 5,48,059 of which 4,30,573 (78.56%) households belong to rural area and 1,17,486 (21.44%) households belong to urban area. West Garo Hills district has a total of 1,23,352 households of which 1,09,609 (88.85%) households belong to rural area and 13,743 (11.15%) households belong to urban area. Details are given in **Table 2.8**.

Name/ Particulars	Total Households	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Meghalaya	5,48,059	4,30,573	1,17,486	78.56	21.44
West Garo Hills	1,23,352	1,09,609	13,743	88.85	11.15

Table 2.	.8: Details	on Households
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Source: Census of India, 2011

III. LEGAL & REGULATORY FRAMEWORK

3.1. Overview

38. 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 1stJanuary 2014. For transmission/distribution line project, land for tower/pole and right of way is not acquired⁵ and ownership of land remains with the owner and is allowed to continue cultivation after construction. However, as per existing laws⁶ 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 15th 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 MePTCL & MePDCL's ESPPF.

3.2. Statutory Requirements

39. 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 MePTCL & MePDCL has been vested with the powers of Telegraph Authority vide Deptt. of Power, Govt. of Meghalaya notification dated 5th February 2016, under Section - 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 under section 10 (b), MePTCL & MePDCL 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.

40. 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:

⁶ 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 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

41. Ministry of Power (MoP) vide its order No. 3/7/2015-Trans dated 15th 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 15th Oct'15 has issued guidelines for payment of compensation for damages in regard to RoW (**Annexure-2**). 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. Till date Govt. of Meghalaya has not adopted the said guidelines for implementation. However, once it is adopted, following compensation shall be paid to all affected farmers/land owners as per norms in addition to normal tree and crop damage compensation;

- 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.

3.3. World Bank's Environmental & Social Safeguard Policies

42. 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 Opera	tional Policies for Social Safeguard
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Operational Policy (OP)	Policy Objectives
OP 4.11 - Physical	To preserve PCR and in avoiding their destruction or damage. PCR
Cultural Resources	includes resources of archeological, paleontological, historical,
(PCR)	architectural, and religious (including graveyards and burial sites),
	aesthetic, or other cultural significance.

OP 4.12 – Involuntary	To avoid or minimize involuntary resettlement and, where this is not
Resettlement	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 –	To ensure that the Indigenous Peoples receive social and economic
Indigenous Peoples	benefits that 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. MePTCL/MePDCL's ESPPF

43. To address the environmental and social issues related to its power transmission and distribution projects under NERPSIP, MePTCL & MePDCL 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.

44. 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.

45. 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

- 46. 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.

47. 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

48. 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.

49. 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.

50. 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 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

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 Meghalaya 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.

51. 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.

52. 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.

53. 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/ MePTCL & MePDCL pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.



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

CPTD for T & D Network in West Garo Hills & South West Garo Hills District, Meghalaya

33 kV (H Pole) line inside substation

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

54. The project components consist of establishment of one 132/33 KV new substation at Phulbari and extension of one existing substation Ampati. Under the distribution component, construction of three 33/11 kV new substations at Rajabala-Bhaitbari, Chibinang, & Raksambre and bay extension of two nos. of existing 33/11 kV substation at Phulbari & Tikrikila are also proposed Land for new substations are already purchased on negotiated rates based on "willing buyer-willing seller basis". Bay extensions of the EHV and DMS substations will be done within the existing substations campus and the land belongs to MePTCL/MePDCL. 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**:

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 Phulbari	Yes	Nil	30	Private Land purchased on negotiated rates based on "willing buyer willing seller" basis
Extension of 132/33 kV substation (existing) at Ampati	No	Nil	Nil	MePTCL land
33/11 kV new substation at Rajabala-Bhaitbari	Yes	Nil	Nil	Private Land purchased on negotiated rates based on
33/11 kV new substation at Chibinang	Yes	Nil	5	"willing buyer-willing seller" basis.
33/11 kV new substation at Raksambre	Yes	Nil	6	
Extension of 33/11 KV Phulbari (existing) substation	No	Nil	Nil	MePDCL land
Extension of 33/11 KV Tikrikila (existing) substation	No	Nil	Nil	MePDCL land

Table 4.1: Details of Substation

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

55. 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 120.0 kilometres (km) which will impact an estimated of 593.25 acres⁷ of land. These include 85.40 km of line passing through agricultural land (438.06 acres of agricultural land), 16.6 km of private plantation/forest (88.50 acres of private plantation/forest land) and 18.0 km of government/barren land (66.69 acres of government land). A brief description about the type and use of land in the corridor is given in **Table 4.2**.

SI. No.	Name of the Line	RoW Width (in mtr)	Agricultural land	Private Plantation/ Forest	Riverin e	Govt Land/ Barren	Total
Α.	Transmission Line	-					
1	Phulbari-Ampati 132 kV D/c	27	41 km/ (273.54 acre)	9.1 km/ (60.71 acre)	Nil	Nil	50.1 km (334.25 acre)
В.	Distribution Line						
2	Phulbari (New)to Rajballa Bhaitbari (New) 33 kV line		16.5 km/ (61.13 acre)	2.0 km/ (7.41 acre)	Nil	Nil	18.5 km/ (68.54 acre)
3	Phulbari(New) to Chibinang(New) 33 kV line		1.1 km/ (4.08 acre)	0.9 km/ (3.33 acre)	Nil	Nil	2.0 km/ (7.41 acre)
4	Tikrila(Existing) to Raksambre(New) 33 kV line		8.0 km/ (29.65 acre)	3.0 km/ (11.12 acre)	Nil	Nil	11.0 km (40.77 acre)
5	Phulbari(New) to Phulbari (Existing) 33 kV line	15	6.0 km/ (22.23 acre)	1.5 km/ (5.56 acre)	Nil	Nil	7.5 km (27.79 acre)
6	Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) 33 kV line		0.8 km/ (2.97 acre)	0.1 km/ (0.37 acre)	Nil	Nil	0.9 km (3.34 acre)
7	Reconductoring of Tikrila-Phulbari line (Existing) from point "X" to Tikrila		12.0 km/ (44.46 acre)	Nil	Nil	18.0 km/ (66.69 acre)	30.0 km (111.15 acre)
	substation(Existing) Total		85.4 km (438.06 acre)	16.6 km (88.50acre)	Nil	18.0 km (66.69 acre)	120 km (593.25 acre)

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

Source: Detailed Survey

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

56. 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

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

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.

57. 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 375.70 acres. Details of estimated impacted area for crop damages is given in **Table 4.3**.

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)
Phulbari-Ampati 132 kV D/c	20	41	9.1	50.1	247.50
Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line		16.5	2.0	18.5	45.70
Phulbari(New) to Chibinang(New) 33 kV line		1.1	0.9	2.0	4.94
Tikrila(Existing) to Raksambre (New) 33kV line		8.0	3.0	11.0	27.17
Phulbari(New) to Phulbari (Existing) 33kV line	10	6.0	1.5	7.5	18.53
Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) 33 kV line		0.8	0.1	0.9	2.22
Reconductoring of Tikrila-Phulbari line (Existing) from point "X" to Tikrila substation(Existing)		12.0	0.0	12.0	29.64
Tota	al	85.4	16.6	102	375.70

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

Source: Detailed Survey

4.3.3 Actual loss of land for Tower Base & Pole

58. 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 50.10 km of 132 kV transmission line and 69.9 km of 33 kV distribution line proposed under the present scheme is estimated to be 0.012 acre & 0.015 acre respectively. However, compensation toward loss 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**.

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.)
Phulbari-Ampati 132 kV D/c	50.10	178	0.25	44.50
Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line	18.5	275	0.092	25.30
Phulbari(New) to Chibinang(New) 33 kV line	2.0	42	0.092	3.86
Tikrila(Existing) to Raksambre (New) 33kV line	11.0	237	0.092	21.80
Phulbari(New) to Phulbari (Existing) 33kV line	7.5	158	0.092	14.54
Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) 33 kV line	0.9	17	0.092	1.56
Reconductoring of Tikrila- Phulbari line (Existing) from point "X" to Tikrila substation (Existing)	30.0	NA	NA	0.0
Total 111.56≅0.028 acre				

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

4.3.4 Land area for RoW compensation as per MoP Guidelines

59. As per the MoP guidelines on RoW compensation, provisional land area to be considered for land compensation has been calculated for proposed Phulbari-Ampati 132 kV D/c line. 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 guidelines is adopted by Govt. of Meghalaya for implementation. Details of calculation of land areas to be considered for such compensation are given in **Table 4.5**.

Name of the line	Line length (km)		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)
Phulbari-Ampati 132 kV D/c	50.10	178	0.036	1.80	6.635	332.41	334.21

Table 4.5 Land area for RoW Compensation

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

4.3.5. Loss of Trees

60. It is estimated that approx. 1075 number of trees likely to be affected due to construction of 50.10 km of 132 kV line and for 39.9 km of new 33 kV distribution line. The major species are Cashew Nut (*Anacardium occidentale*), Betel nut (*Areca catechu*), Jackfruit (*Artocarpus heterophyllus*), Orange (*Citrus X sinensis*) & Banana (*Musa acuminate*) etc.. During construction all these private trees will be compensated as per the entitlement matrix. Details on number of trees for each line are given in **Table 4.6**.

Name of Line	Trees in Private Area (Numbers)	Trees in Govt. Area (Numbers)	Total Trees (Numbers)
Phulbari-Ampati 132 kV D/c	760	Nil	760
Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line	84	Nil	84
Phulbari(New) to Chibinang(New) 33 kV line	38	Nil	38
Tikrila(Existing) to Raksambre (New) 33kV line	126	Nil	126
Phulbari(New) to Phulbari (Existing) 33kV line	63	Nil	63
Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari(Existing) 33kV line	4	Nil	4
Reconductoring of Tikrila-Phulbari line (Existing) from point "X" to Tikrila substation(Existing)	Nil	Nil	Nil
Total	1075	Nil	1075

Table 4.6: Loss of Trees

Source: Detailed Survey

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

61. It has been observed during survey that approximately 05 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**

Name of Line	Total number of storage sheds/huts
Phulbari-Ampati 132 kV D/c	05
Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line	Nil
Phulbari(New) to Chibinang(New) 33 kV line	Nil
Tikrila(Existing) to Raksambre (New) 33kV line	Nil
Phulbari(New) to Phulbari (Existing) 33kV line	Nil
Phulbari (New) to point "X" at 33/11 kV line Tikrila-	Nil
Phulbari (Existing) 33 kV line	
Reconductoring of Tikrila-Phulbari line (Existing) from	Nil
point "X" to Tikrila substation(Existing)	
Total	05

Table 4.7: Loss of Other Assets

Source: Detailed Survey

4.4. Details of Affected Persons

62. It is estimated that total number of affected persons which may be impacted temporarily will be approximately 960. 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).

Name of Line	Total APs
Phulbari-Ampati 132 kV D/c	460
Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line	190
Phulbari(New) to Chibinang(New) 33 kV line	12
Tikrila(Existing) to Raksambre (New) 33kV line	177
Phulbari(New) to Phulbari (Existing) 33kV line	65
Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) 33 kV line	06
Reconductoring of Tikrila-Phulbari line (Existing) from point "X" to Tikrila substation(Existing)	50
Total	960

Source: Detailed Survey

4.5 Other Damages

63. 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. State Utilities/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

64. 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.

65. 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. In the whole Meghalaya State, special provisions also have been extended to the Tribal Areas under the 6th Schedule [Articles 244(2) and 244(A) of the constitution] in addition to basic fundamental rights. The Sixth Schedule provides for administration of tribal areas as autonomous entities. The administration of an autonomous district is vested in a District Council and of an autonomous region, in a Regional Council.

66. The project is being implemented in the tribal areas governed by Garo Hills Autonomous District Council (GHADC) as per the provisions of Sixth Schedule of the Indian Constitution.

Around 86% of the population of Meghalaya belongs to Schedule Tribes. So, the benefits arising out of the project will largely accrue to tribal population. However, in such ADC area No Objection Certificate (NoC) from concerned land owner/ Headman /Village Council shall be obtained (**Annexure- 4**). Besides, all social issues shall be dealt separately in accordance with the provisions of Social Management Framework (SMF, A-C) placed in the ESPPF of MePTCL/MePDCL.

4.8. Summary of Impacts

67. 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)	50.10/ 39.9
Number of Towers/ Poles (Nos.)	178/729
Total Area under RoW (in acre)	593.25
Total APs (Nos.)	960
Affected Structures (Small Sheds for agricultural purpose(Nos.))	05
Area of Temporary Damages for crop compensation (in acre)	375.70
Total Trees (Nos.)	1116

Source: Detailed Survey

V. ENTITLEMENTS, ASSISTANCE AND BENEFITS

5.1. Entitlements

68. 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.

69. 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

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

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

SI.	Type of Issue/ Impact	Beneficiary	Entitlement Options
			prevailing GOI norms for weaker section housing) for
			construction of house plus transition benefits as per
			category-5 below.
(ii)	Shop/ Institutions/	Individual/	Cash compensation plus Rs. 10000/- for construction
	Cattle shed	Titleholders	of working shed/shop plus transition benefits as per
			category-5 below
6.	Losses during	Family/unit	Provision of transport or equivalent cash for shifting of
	transition under (i) &		material/ cattle from existing place to alternate place
	(ii) above for Shifting		
	/ Transport		
7.	Tribal/ Vulnerable	Vulnerable	One time additional lump sum assistance not
	APs	APs8	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 Meghalaya 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

71. In exercise of the powers conferred by section 164 of the Electricity Act, 2003, Deptt. of Power, Govt. of Meghalaya vide notification dated 5th February 2016, has authorized MePTCL & MePDCL 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 immoveable 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, MePTCL & MePDCL / 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:

72. MePTCL & MePDCL 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.:

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

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

- 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.

74. 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 inevitability 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 Meghalaya Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

75. 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 inevitability 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.

76. 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 MePTCL & MePDCL to enable removal / damage to the standing tree/crop identified in the line corridor.

77. Once the tree/crop is removed / damaged, MePTCL & MePDCL 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.

78. On approval of compensation, the revenue officer shall further intimate the amount payable to the different landowners and MePTCL & MePDCL/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, MePTCL & MePDCL/POWERGRID shall pay the land compensation for tower footing and RoW corridor as per prescribed norms once Govt. of Meghalaya adopt MoP guidelines of Oct,'15 for implementation in State.

5.5. Compensation for Structure

79. 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, 05 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 MePTCL & MePDCL /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

80. 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.

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

Table 5.2: Compensation Disbursement Module

* 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.





VI. INFORMATION DISCLOSURE, CONSULTATION & PARTICIPATION

6.1. Consultations

81. 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 MePTCL/MePDCL & 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 MePTCL/MePDCL approach to minimizing and solving them;
- Trees and crop compensation process.

82. 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 Council/headman, senior/respected person of village, interested villagers/general public and representatives from MePTCL/MePDCL & 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**.

Date of meeting	Venue of Meeting	No. of Persons attended	Persons Attended
Public Cons	ultation Meeting		
09.12.2014	Village- Rongkhon, Tura, West Garo Hills	43	Members of Garo Hill Council, Senior members & General Public

Table 6.1	Details of	Consultations
-----------	------------	---------------

10.12.2014	Village - Phulbari, West Garo Hills	56	Members of Garo Hill Council, Village Council Members, interested general public
Informal Gro	oup Meeting		
01.12.2016	Chaprabudi Village, Selsella Block, West Garo Hills	10	Project affected families, Village headman & general public
12.01.2017	Chamaguri Village, Selsella Block, West Garo Hills	7	Project affected families, Village headman
09.02.2017	Garodoba Village, Betasing, West Garo Hills	11	Project affected families, Village headman etc.
16.04.2018	Phulbari 132/33 Substation, Village – Chibinang, West Garo Hills	12	Project affected families, Village headman & general public.

83. During consultations/interaction processes with people of the localized areas, MePTCL & MePDCL/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.

84. 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;

85. MePTCL/MePDCL & 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

86. 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**.

S. N.	Activity	Technique	Schedule
1.	Detailed/	Formal/Informal Meeting at different	Public meeting during
	Check survey	places (20-50 Km) en-route final route	pre- construction stage
		alignment of line	
2.	Construction	Localized group meeting, Pamphlet/	During entire construction
	Phase	Information brochures, Public display etc.	period.
3.	O&M Phase	Information brochures, Operating field	Continuous process as
		offices, Response to public enquiries,	and when required.
		Press release etc.	

Table 6.2: Plan for Future Consultations

6.3. Information Disclosure

87. The draft/summary CPTD will be disclosed to the affected households and other stakeholders by placing it on website. MePTCL/MePDCL & POWERGRID 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. 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 MePTCL/MePDCL & POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix in local language will be placed at construction offices/ sites. The summary of CP will be disclosed on the World Bank website. MePTCL/MePDCL & 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.

88.

VII. INSTITUTIONAL ARRANGEMENTS

7.1 Administrative Arrangement for Project Implementation

89. 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, GoI. CPIU shall also assist MoP, GoI in monitoring project progress and in its coordination with The Bank.



7.2. Review of Project Implementation Progress:

90. 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, GoI and The Bank may join as and when needed. Minutes of the meeting will be shared with all concerned and if required, with GoI 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, GoI, 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 GoI/ State Government level. Minutes of the meeting shall be prepared by IA and shared with all concerned.

7.3. Arrangement for Safeguard Implementation

91. 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.

92. 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.

93. In the instant subprojects, POWERGRID will implement the CPTD in close co-ordination with MePTCL/MePDCL 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**.

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

Table 7.1: Agencies Responsible for CPTD Implementation

7.4. Responsibility Matrix to manage RoW Compensation

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

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

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

VIII. GRIEVANCE REDRESS MECHANISM

94. 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 MePTCL/MePDCL, 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

95. 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.

96. 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.

97. 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, MePTCL/MePDCL & 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**:





IX. BUDGET

98. 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 Meghalaya 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 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 MePTCL/MePDCL & 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 MePTCL/MePDCL & 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

99. 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. 770.87 Lakhs. A detail of cost is given below in **Table 9.1**.

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%)
Phulbari–Ampati 132 kV D/C	50.10	1.80	332.41	15.00	770.87

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

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

9.2. Compensation for Crops and Trees

100. 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.

SI No	Name of the Line	Total Length (Km)	Compensation /Km (In Lakh)	Total compensation cost for Crops & trees (Lakh)
1.	Phulbari-Ampati 132 kV D/c	50.10	5.0	250.50
2.	Phulbari (New) to Rajballa Bhaitbari (New) 33 kV line	18.5	0.5	9.25
3.	Phulbari(New) to Chibinang(New) 33 kV line	2.0	0.5	1.00
4.	Tikrila(Existing) to Raksambre (New) 33kV line	11.0	0.5	5.50
5.	Phulbari(New) to Phulbari (Existing) 33kV line	7.5	0.5	3.75
6.	Phulbari (New) to point "X" at 33/11 kV line Tikrila-Phulbari (Existing) 33 kV line	0.9	0.5	0.45
7.	Reconductoring of Tikrila- Phulbari line (Existing) from point "X" to Tikrila substation(Existing)	30	0.5	15.0
	Total			285.45

Table 9.2: Cost of Compensation for Crops and Trees

9.3. Summary of Budget

101. The total indicative cost is estimated to be **INR 1107.68 Lakhs** equivalent to **USD 1.846** 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

Item	Amount in Lakh (INR)	Amount in (Million USD)
A. Compensation		
A-1: Loss of Crops and Trees	285.45	0.475
A-2: Land Compensation for Tower Base and RoW Corridor ⁹	770.87	1.284
Sub Total-A	1056.32	1.759
B: Implementation Support Cost		
B-1: Man-power involved for CPTD Implem. & Monitoring	9.10	0.015
B-2: External Monitoring, if required	10.00	0.016
Sub Total- B	19.10	0.031
Total (A+B)	1075.42	1.792
Contingency (3%)	32.26	0.053
Grand Total	1107.68	1.846

⁹ Payment of Compensation subject to adoption/implementation of MoP guidelines of Oct.'15 by Govt. of Meghalaya

X. IMPLEMENTATION SCHEDULE

102. 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**.

SI.	Activity		201	7			201	8			201	9	
No.													
		Q		Q		Q	Q			Q	Q		
		1	2	3	4	1	2	3	4	1	2	3	4
1.	Initial CPTD Matrix disclosure												
2.	Detailed Survey												
3.	Public Consultation												
4.	Compensation Plan Implementation												
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												
5.	Civil Works												
6.	Review/ Activity Monitoring												
i)	Monthly												
ii)	Quarterly												
iii)	Half yearly												
iv)	Annual												
7.	Grievance redress												
8.	CPTD Documentation												
9.	External Monitoring, if required												

Table 10.1 Tentative Implementation Schedule

XI. MONITORING AND REPORTING

103. 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.

104. 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.

105. 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.

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



Figure – 11.1: MePTCL/MePDCL Support Structure for Safeguard Monitoring

ANNEXURE - 1

EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT

EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT

A. 132 KV D/C PHULBARI - AMPATI TRANSMISSION LINE

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;

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars			
i	Route Length (km)	50.1	82.33	68.88
ii	Terrain			
	Hilly	40%	70%	70%
	Plain	60%	30%	30%
2.	Environmental details			-
i	Name of District details through which the line passes	South West Garo Hills & West Garo Hills	South West Garo Hills & West Garo Hills	South West Garo Hills & West Garo Hills
ii	Town in alignment	Phulbari & Ampati	Phulbari & Ampati	Phulbari & Ampati
iii	House within ROW	To be ascertained during detail survey	To be ascertained during detail survey	To be ascertained during detail survey
iv	Forest involvement in Ha/(Km)	NIL	Approx 27 Ha/10 Km	Approx 18.9 Ha/ 7 Km
V	Type of Forest (RF/PF/Mangrove/ Wildlife Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or anyother environmentally sensitive area.	NIL	Reserve Forest	Reserve Forest
vi	Density of Forests	NIL	Dense	Very Dense
vii	Type of flora	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa acuminate</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca</i> <i>catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)	Sal (Shorea robusta), Teak (Tectona Grandis), Terminallia sp Pitcher plant etc	Sal (Shorea robusta), Teak (Tectona Grandis), Terminallia sp Pitcher plant etc

S.N	Description	Alternative-I	Alternative-II	Alternative-III
viii	Type of fauna	Assamese	Bear cat (Arctictis	Bear cat (Arctictis
	5.	Macaque (<i>Macaca</i>	binturong),	binturong),
		assamensis), Great	Himalayan Black	Himalayan Black
		Indian Hornbill	Bear (Ursus	Bear (Ursus
		(buceros bicornis),	thibetanus),	thibetanus),
		Grey Peacock	Barking Dear	Barking Dear
		Pheasant	(Muntiacus	(Muntiacus
		(Polyplectron	muntjac), Pangolin	muntjac), Pangolin
		<i>bicalcaratum</i>). Also Sparrow, Pigeon,	(Manis crassicaudata),	(Manis crassicaudata),
		Fox, Monkey found	jungle Cat (Felis	jungle Cat (Felis
		T OX, MOTIKEY TOUTIO	chaus), Assamese	chaus), Assamese
			Macaque (<i>Macaca</i>	Macaque (<i>Macaca</i>
			assamensis), etc.	assamensis), etc.
viii	Endangered species,		Various species of	Various species of
	any		orchids and	orchids and
	-	NIL	endangered	endangered
			species may be	species may be
			present in involved	present in involved
			reserved forests.	reserved forests
ix	Historical/cultural	NIL	NIL	NIL
	monuments			
х	Any other releva		A portion of the line	A portion of the
	information	passes over paddy cultivated area with	is passing through Hilly Reserved	line is passing through Hilly
		some portion of	Forest area	through Hilly Reserved Forest
		line passing over		area
		private plantation/		urcu
		tree cover lands		
		owned by Village		
		council.		
3	Compensation Cost (in L			
i	Crop (Non Forest)	Estimated as	Estimated as	Estimated as
		Rs.311.45 lakhs @	Rs.361.65 @ Rs 5	Rs.309.4 lakhs @
::		Rs.5 Lakhs per Km	Lakhs per Km	Rs.5 Lakhs per Km
ii	Forest (CA+NPV)	N/A	Estimated as Rs.	Estimated as Rs 378 lakhs @Rs. 20
			540 lakhs @Rs.20 Lakhs Per Ha	Lakhs Per Ha
4.	No. of Crossings (Nos.)			
i	Highway	NIL	NIL	NIL
	(National/State)	K111	KIII	KIII
ii iii	Power line Railway line	NIL NIL	NIL NIL	NIL NIL
iv	Railway line River crossing	<u> </u>	5	2
5.	Construction problems	Comparatively	Comparatively	Comparatively
0.		easy as the line is	difficult as the route	difficult as the
		mostly passing	is not easily	route is not easily
		along the existing	accessible and	accessible and
		state road and	away from roads.	away from roads.
		through plain	-	
		cultivated areas.		

S.N	Description	Alternative-I	Alternative-II	Alternative-III
6.	O&M problems	, , , , , , , , , , , , , , , , , , , ,	inaccessibility and involvement of	5

From the above comparison of the three different alternatives, it is evident that Alternative-I is not only shorter in length than Alternative –II and Alternative-III, but doesn't have any Forest Involvement also. At the same time, Alternative-I is passing mostly along the existing state Road and has involvement of more plain area. So, lesser degree of construction and O&M problems are expected in Alternative-I, compared to other two Alternatives. Hence, Alternative - I is considered as the most optimum route and recommended for detailed survey.

B. ANALYSIS OF ALTERNATIVES FOR DISTRIBUTION LINES

S. No	Name of the distribution line with length	
1	33 KV Phulbari S/s – Rajballa Bhaitbari S/s line	- 18.3 km
2	33 KV Phulbari S/s - Chibinang S/s line	- 2.0 km
3	33 KV Tikrila S/s - Raksambre S/s line.	– 11.0 km
4	33 KV Phulbari S/s - Phulbari Existing S/s line	- 7.5 km
5	33 KV Phulbari S/s - point "X" at Existing (Tikrila-Phulbari line) Line) - 0.9 km	Line (Patch

Following distribution lines are proposed under subject schemes;

Since the subproject distribution lines at SI. No. 2, 4 & 5 connect two substations in close vicinity with their line length not exceeding 6 kms and are intended for providing power supply to the predestined areas, thus, having negligible environmental and social impacts. Hence alternative analysis studies are not required. However for distribution lines at S. No. 1 & 3 having line length of more than 10 kms, detail alternative route alignment study is as follows:

1. 33 KV LINE FROM PHULBARI 132 KV S/S - RAJBALLA BHAITBARI S/S

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;

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars (BEE	line length: 13.22 KM)		
i	Route Length (km)	18.5	15.5	14
ii	Terrain			
	Hilly (Gentle slope)	-	10%	90%
	Plain	100%	90%	10%
2.	Environmental details			

S.N	Description	Alternative-I	Alternative-II	Alternative-III
i	Name of District through which the line passes	West Garo Hills	West Garo Hills	West Garo Hills
ii	Town in alignment	Phulbari, Rajballa Bhaitbari, Gasbari, Khetadhowa, Bhoralgaon, Magurmari, Garodubi, Haripur	Phulbari, Rajballa Bhaitbari, Tumni Lawkhowa, Bhlukmari, Shidakandi, Sakmal	Phulbari, Rajballa, Bhaitbari, Askigandi, Bhotdoba, Morasuti, Quajani, Phersakandi, Kalugaon, Chandrakona.
iii i	House within ROW	-	-	-
iv	Forest involvement Ha/(Km)	NIL.	NIL	NIL
V	Type of Forest (RF/PF/Mangrove/Wildl Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or ar other environmentally sensitive area.			Village council owned land having tree cover
vi	Density of Forests	NA	NA	NA
vii	Type of flora	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa acuminate</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca</i> <i>catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)	Bamboo (Bambusa vulgaris), Banana (Musa acuminate), Pineapple (Ananas comosus), Betel nut (Areca catechu), Rubber plant (Ficus elastica)	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa acuminate</i>), Pineapple (<i>Ananas</i> <i>comosus</i>), Betel nut (<i>Areca catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)
viii	Type of fauna	Assamese Macaque (<i>Macaca</i> <i>assamensis</i>), Great Indian Hornbill (<i>buceros</i> <i>bicornis</i>), Grey Peacock Pheasant (<i>Polyplectron</i> <i>bicalcaratum</i>). Also Sparrow, Pigeon, Fox, Monkey found	Assamese Macaque (<i>Macaca</i> <i>assamensis</i>), Great Indian Hornbill (<i>buceros</i> <i>bicornis</i>), Grey Peacock Pheasant (<i>Polyplectron</i> <i>bicalcaratum</i>). Also Sparrow, Pigeon, Fox, Monkey found	Assamese Macaque (<i>Macaca</i> <i>assamensis</i>), Great Indian Hornbill (<i>buceros bicornis</i>), Grey Peacock Pheasant (<i>Polyplectron</i> <i>bicalcaratum</i>). Also Sparrow, Pigeon, Fox, Monkey found
ix	Endangered species, any	NIL	NIL	NIL
Х	Historical/cultural monuments	NIL	NIL	NIL

S.N	Description	Alternative-I	Alternative-II	Alternative-III
xi	Any other relevant information	Line is mostly passing along with the existing state road and through cultivated areas/ paddy field/agricultural field.	Line is mostly passing through cultivated areas/ paddy field/ agricultural field. Also route is through low lying areas along the banks of river Brahmaputra.	Line is mostly passing through Village council owned land having tree cover with high density
3	Compensation Cost (in			
i	Crop (Non Forest)	Estimated @ 0.1 Lakh/per Km	Estimated @ 0.1Lakh per Km	Estimated @ 0.1 Lakh per Km
ii	Forest (CA+NPV)	N/A	N/A	N/A
4.	No. of Crossings (Nos.)			
i	Highway (National/State		NIL	NIL
ii	Power line	NIL	NIL	NIL
iii	Railway line	NIL	NIL	NIL
iv	River crossing	1	1	1
5.	Construction problems	Comparatively less as the line route is in close proximity with the state road.	Comparatively more as the line route is passing through low lying area along the banks of river Brahmaputra with difficult approach/access paths	Difficult due to dense tree cover plantation with difficult approach paths also involve large No. of tree felling with maximum ROW problems
6.	O&M problems	Less as the line route is easily accessible from state road	Difficult due to difficult accessibility	Difficult due to dense tree cover plantation with difficult approach paths

From the above comparative analysis of thee alternatives studied, it is observed that although Alternative-I is longer than Alternative-II & Alternative-III. However, it is mostly passing over plain agriculture/ revenue land and is in close proximity of state road. So, lesser degree of Construction, O&M and ROW problems are anticipated in case of Alternative-I compared to other two alternatives. Also, Alternative-III is passing through village council owned land having tree cover. Hence, Alternative-I is recommended for detailed survey.

2. 33 KV TIKRILA EXISTING S/S - RAKSAMGRE NEW S/S LINE

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;
S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars (BEE	Line Lenath: 13.83 KM)	
i.	Route Length (km)	11	14.4	16.8
ii.	Terrain			
	Hilly (Gentle slope)	80%	80%	60%
	Plain	20%	20%	40%
2.	Environmental details			
i	Name of District through which the line passes	West Garo Hills	West Garo hills	West Garo Hills
ii	Town in alignment	Phulbari, Tikrikilla, Bolbokgre, Kentapara, Chambilgiri Raksamgre.	Phulbari, Tikrikilla Banmanggre, Chambalgre, Ronipara, Roniasim, Angaripara Raksamgre.	Phulbari, Tikrikilla, Nagorgaon, Kothalbari, Bakripara, Sabong, Chamaguri, Damachiga, Bollonggitok.
iii	House within ROW	-	-	-
iv	Forest involvement Ha/(Km)	NIL	NIL	NIL
V	Type of Forest (RF/PF/Mangrove/Wil dlife Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	NIL	NIL	NIL
vi	Density of Forests	NA	NA	NA
vii	Type of flora	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa acuminate</i>), Pineapple (<i>Ananas</i> <i>comosus</i>), Betel nut (<i>Areca catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa</i> <i>acuminate</i>), Pineapple (<i>Ananas</i> <i>comosus</i>), Betel nut (<i>Areca</i> <i>catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)	Bamboo (<i>Bambusa</i> <i>vulgaris</i>), Banana (<i>Musa acuminate</i>), Pineapple (<i>Ananas</i> <i>comosus</i>), Betel nut (<i>Areca catechu</i>), Rubber plant (<i>Ficus</i> <i>elastica</i>)
viii	Type of fauna	Assamese Macaque (<i>Macaca</i> <i>assamensis</i>), Great Indian Hornbill (<i>buceros bicornis</i>), Grey Peacock Pheasant (<i>Polyplectron</i> <i>bicalcaratum</i>). Also Sparrow, Pigeon, Fox, Monkey found	Assamese Macaque (<i>Macaca</i> <i>assamensis</i>), Great Indian Hornbill (<i>buceros</i> <i>bicornis</i>), Grey Peacock Pheasant (<i>Polyplectron</i> <i>bicalcaratum</i>). Also Sparrow, Pigeon, Fox, Monkey found	Sparrow, Pigeon,
ix	Endangered species,	NIL	NIL	NIL
	any			

S.N	Description	Alternative-I	Alternative-II	Alternative-III
x	Historical/cultural monuments	NIL	NIL	NIL
xi	Any other relevant information	Line is mostly passing through Paddy cultivation and small hillocks with medium dense tree cover. Well approachable village roads are available. However, some land owned by village council having tree cover is	Paddy cultivation and small hillocks with medium dense tree cover. However, some land owned by village council having tree cover is encountered	Paddy cultivation and small hillocks with medium dense tree cover. However, some land owned by village council having tree cover is encountered
3	Compensation Cost (in	encountered		
i.	Crop (Non Forest)	Estimated @ 0.1	Estimated @ 0.1	Estimated @ 0.1 Lakl
		Lakhs per Km	Lakhs per Km	per Km
ii.	Forest (CA+NPV)	NA	NA	NA
4.	No. of Crossings (Nos.)			
i.	Highway (National/State)	NIL	NIL	NIL
ij.	Power line	NIL	NIL	NIL
iii.	Railway line	NIL	NIL	NIL
iv.	River crossing	NIL	NIL	NIL
5.	Construction problems	Comparatively less as line route is easily approachable from existing roads/paths	comparatively more due to poor approach roads and paths	comparatively more due to very poor accessibility in absence of roads and paths up to route.
6.	O&M problems	Medium	High	High

From the above comparative analysis of three alternative route alignment examined, it is observed that Alternative-I is shorter in length than Alternative-II and Alternative-III, mostly passing over plain agriculture/ revenue land and is well approachable from the existing roads. Since, the route is passing over agriculture / revenue land, it is likely to have fewer ROW problems. Hence, Alternative 1 has been recommended for detailed survey.

ANNEXURE – 2

MOP GUIDELINES DATED 15TH 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, 15th October, 2015

To

- 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:-

 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;

-1-

- (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 guidelinesconsidering that acquisition of land is a State subject.

Yours faithfully,

Joint Secretary (Trans.) Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following:

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

-2-

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

0. Month Mo							UNIQU PROJECT : 1 TOWEF	UNIQUE STRUCTURES OJECT: 132 KV. D/C TRAINSMISSION TOWER SECHDULE FROM GANTE	LCTUR	UNIQUE STRUCTURES & IOWERS LIU. PROJECT : 132 KV. D/C TRAINSMISSION LINE FROM PHULBARI TO AMPATI TOWER SECHULLE FRANK (PHULBARI) TO AP 50 CLIEART POWERSEND CORPORATION OF INDIA LIMITED/INERPSIP)	X IOWERS LIU LINE FROM PHULBARI TO ty (PHULBARI) TO AP 50 OF INDIA LIMITED(NERPSI	BARI TO A AP 50 NERPSIP)	MPATI		-		STRUCTURES & T O W E R S L I M I T E D
wrol Locie water resents resetts resen						-	LEVEL ON	1	NOILOIA	SIIM OF	WEIGHT	SPAN HOT	MTRS)	WEIGHT S	SPAN COLI	(MTRS)	
Owner Contrint Contrint <t< th=""><th>SL. NO.</th><th>AP NO.</th><th>LOC No</th><th>ANGLE OF DEVIATION</th><th>RAISED CHIMNEY</th><th>TOWER</th><th>THE LOCATION (MTRS)</th><th>SPAN (MTRS)</th><th>LENGTH (MTRS)</th><th>ADJ-SPAN (MTRS)</th><th>LEFT</th><th>RIGHT</th><th>TOTAL</th><th>LEFT</th><th>RIGHT</th><th>TOTAL</th><th>REMARKS/CROSSING</th></t<>	SL. NO.	AP NO.	LOC No	ANGLE OF DEVIATION	RAISED CHIMNEY	TOWER	THE LOCATION (MTRS)	SPAN (MTRS)	LENGTH (MTRS)	ADJ-SPAN (MTRS)	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	REMARKS/CROSSING
Matrix Description Open		CANTRY	CANTRY	C		GANTRY	37.337			0	0	0	0	0	0	0	VILL-CHIBINANG
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M23 200 314/40/2014 Im DOID 312/2014 Im DOID 322/2014 DOID 322/2014 <thd< td=""><td>~</td><td>AP1</td><td>1/0</td><td>02"52'04'KI</td><td></td><td>DE 10</td><td>1111.00</td><td>215</td><td></td><td></td><td></td><td></td><td>100</td><td>2</td><td>1001</td><td>181</td><td>VII 1-CHIBINANG</td></thd<>	~	AP1	1/0	02"52'04'KI		DE 10	1111.00	215					100	2	1001	181	VII 1-CHIBINANG
AP3 D0 Contropert Dead Dead <thdead< th=""> <thdead< th=""> Dead <t< td=""><td>4</td><td>AP2</td><td>2/0</td><td>31°49'20"RT</td><td>1m.</td><td>0+0Q</td><td>28.322</td><td>010</td><td>215</td><td>525</td><td>47</td><td>140</td><td>18/</td><td>10</td><td>130</td><td>101</td><td>VILL-01 100 + 110</td></t<></thdead<></thdead<>	4	AP2	2/0	31°49'20"RT	1m.	0+0Q	28.322	010	215	525	47	140	18/	10	130	101	VILL-01 100 + 110
1 1 1 0.13 2606 280 590 130		AP3	3/0	02°21'26"LT		DB+3	28.895	310	310	599	170	157	327	180	164	344	VILL-CHIBINANG NALA, HILL
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30 11 DA03 32.899 28 001 151 156 231 31 31 Dava 32.800 33 001 161 171 156 321 31 31 Dava 25.80 33 310 Dava 25.80 310 101 103 101 103 230 31 31 Dava 25.80 310 25.80 310 200 101 103 220 101 103 30 11 Dava 25.80 310 200 510 110 110 101 111 101 30 11 Dava 25.80 310 200 500 111 111 111 111 301 Dava 271 200 901 111 112 111 111 4840 300 001 111 112 200 111 112 111 111 4840 400 001 310 300 300 300 301 112 113 113 113 4840 401 100 240 200 200 100 101 101 101	N		3/2		1m.	D4+0	26.41	000		578	122	128	250	108	0	077	
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AP6 B(0 11*42:32°LT DB-3 34911 230 295 425 68 32 100 75 25 100 AP7 7/0 16*1659°LT DC-3 37.341 130 256 98 138 256 105 145 250 AP7 7/0 16*1659°LT DC-3 37.341 720 405 19 138 256 105 145 250 AP8 8/0 16*1659°LT 170 0C-0 28054 286 585 647 152 181 333 158 121 329 AP9 9/0 15*1658°LT 175 286 537 181 151 333 158 161 339 AP9 9/0 15*1658°LT 175 286 537 181 151 322 181 132 333 181 132 333 191 132 343 AP11 1100 32505°LT 110	6	APS	5/0	02°30'53"LT		D8+6	38.946	200	310	605	237	228	465	231	230	461	VILL-GUPAL ITMAY
AP7 7/0 16*1659(1 DC:3 37.341 130 130 256 165 145 250 AP7 7/0 16*1659(1 DC:3 37.341 120 130 250 96 133 216 145 260 AP8 8/0 15*5447°L DC:4 27.62 2865 586 647 152 181 333 158 181 333 158 181 333 158 181 333 158 181 333 159 181 333 158 181 333 159 181 333 159 181 333 159 181 333 159 181 333 159 181 333 159 181 333 159 181 333 159 181 333 159 181 333 150 132 131 132 333 159 131 132 333 150 131 132 131 132	00	AP6	6/0	11°42'32"LT		DB-3	34.911	067	295	425	68	32	100	75	25	100	TRUNCKKETED TOWER
APY 700 10 0 00 00 10 00 00 121 132 131 131 132 131 132 131 132 131 132 131 132 131 132 131 132 131 132 131 132 131 132			VIE	1 POSTEVENI T		DC.3	37.341	130	130	250	98	138	236	105	145	250	TRUNCKKETED TOWER
AP8 800 16 ⁵ 544711 1m DC+0 280.4 100 152 181 333 168 181 132 AP11 1100 22°05671 1m D0+0 23.477 266 511 23 265 537 181 132 112 233 317 AP11 1110 10°260571 110 D0°2239 286 570 1	-	API	1/0	10 10 39 41				120	UCK	ADE	10	133	114	-35	127	92	VILL-ASAM PANI
AP9 9/0 15''500°RT DC+3 27.582 285 647 152 181 333 100 101 333 100 101 333 100 101 333 103 111 132 313 113 333 103 111 132 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313 113 313	2	AP8	8/0	16°54'47"LT	1m.	DC+0	28.054	285	121	2014				0.1	101	330	3 NOS LT LINE, CT ROAD, TAR RO
AP9A 9A/0 15*16:36:1.1 DC+3 27/162 362 537 181 151 332 181 192 373 AP10 100 32*02'53'L 1m DD+0 23477 266 511 132 134 158 119 373 AP11 110 32*02'53'L 1m DD+0 23477 266 511 132 134 153 119 243 AP11 110 10*2605'L 1m DB+0 23'23'B 266 511 132 305 160 157 317 243 AP12 12/0 10*52'39''' 10 570 155 150 305 160 157 317 243 AP12 12/0 10*52'39''' 10*52'39''' 110 157 317 112 243 AP12 12/0 10*52''' 10*1 157 317 0 156 150 305 160 157 317 <	33	AP9	0/6	15°55'08"RT		DC+3	27.582	36.7	285	647	152	181	333	RGL	101	200	LT LINE, TAR ROAD
AP10 100 32*0253*17 115 115 441 24 134 136 119 AP11 1100 32*0253*17 111 100-0 23.477 286 511 132 90 222 131 112 243 AP12 1200 10*539*17 10 23.68 511 132 90 222 131 112 243 AP12 1200 10*5239*17 10*3 25.187 245 570 155 150 305 160 157 317 AP12 1200 10*5239*17 10*5239*17 10*3 25.187 245 570 155 150 305 160 157 317 AP12 1200 10*5239*17 10*3 25.187 245 570 156 150 305 160 157 317 AP12 1200 10*5239*17 0 156 150 305 160 157 317 AP14 10*5 570 156 150 305 160 157 317 AP16 0 25 13 10*5 156 150 305 160 157 317 AP1	-	AP9A	9A/D	15°16'36"LT		DC+3	27.62	700	362	537	181	151	332	181	192	373	VILL-ASAM PANI POND
AP10 100 accord 110 102605°LT 111 112 243 AP11 110 10°2605°LT 1m. DB+0 23283 245 56 511 122 131 112 243 AP11 110 10°2605°LT 1m. DB+0 23283 245 570 155 150 305 160 157 317 AP12 12.00 10°2238°RT DB+3 25.187 245 570 155 150 305 160 157 317 AP12 12.00 10°2238°RT DB+3 25.187 245 570 155 150 305 160 157 317 AP10.0 0 0 0 0 0 0 0 0 0 0 0 157 317 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30		U/U	T 122.00.00	et.	0+00	23.477	175	175	441	24	134	158	-17	135	119	VILL-ASAM PANI
AP11 110 10-2010 1 11 00 10-2010 1 11 00 10-2010 1 11 00 10-2010 1 11 00 10-10-100 10-10-10 10-10 10-10-10 10-10-10 10-10-10-10-10-10 10-1		ALIA	DID!	10 04 00 CI		UTOU	23 282	266	266	511	132	06	222	131	112	243	VILL-ASAM PANI
AP12 1210 10*239RT DB+3 25.187	26	AP11	11/0	10.20.01	IIII.	2.00	101101	245			100	100	305	160	157	317	VILL-ASAM PANI
SHILLOW SHILLO	27	AP12	12/0	10°52'39"RT		DB+3				5/0	11	net	1	3			
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Image: constraint of the							UNIQL PROJECT : 1 TOWEI	JE STR 132 KV. D/C R SECHDUL	UNIQUE STRUCTURES & TOWERS LTD. PROJECT : 132 KV. DIC TRAINSMISSION LINE FROM PHULBARI TO AMPATI TOWER SECHDULE FROM GANTRY (PHULBARI) TO AP 50 TOWER SECHDULE FROM GANTRY (PHULBARI) TO AP 50	ES & TO SION LINE FR ANTRY (PHU	TOWERS LTD E FROM PHULBARI TO PHULBARI) TO AP 50 NDIA LIMITED(NERPSI	LTD. BARI TO AI AP 50 NERPSIP)	MPATI				STRUCTURES & T O W E R S L M I T E D
OC No Magte or benation Rase of the mark of t							CLIENT: P	OWERGRID			WEIGHT	SPAN HOT	MTRS)	WEIGHT S	SPAN COLD(MTRS)	(MTRS)	
121 1 1 0B+6 26.63 32.6 690 175 166 130 66'53'3'1' 1 1 0B+6 23.63 300 570 145 123 140 13'42'26'F(1) 1 0B+0 23.36 23.03 300 570 145 123 150 13'42'26'F(1) 1 0B+0 23.373 200 500 160 117 117 150 17'3'70'F(1) 2 0C+3 23.289 300 500 183 166 171/1 177 178 2 2 2 300 565 134 144 171 10'1'46'F(1) 1 0C+3 2 2 366 566 134 144 171 10'1 2 2 2 2 143 144 171 10'1 10'1 2 2 2 2 141 117 170 10'1'4'1	NO.	AP NO.	LOC No	ANGLE OF DEVIATION	RAISED CHIMNEY	TYPE	LEVEL ON THE LOCATION (MTRS)	SPAN (MTRS)		ADJ-SPAN (MTRS)		RIGHT	TOTAL	LEFT	RIGHT	TOTAL	REMARKS/CROSSING
1211 1m DB+6 22.63 30 570 175 106 130 0553371 1m DB+3 23703 30 570 145 170 123 140 13-452871 1m DB+0 23356 230 570 145 123 140 17-3707171 1m DB+0 23321 2200 570 145 123 150 17-3707171 1m DB+0 23321 2200 590 570 145 123 170 177004 22013 200 560 160 177 177 170 1737071 1m D0-0 23376 500 500 160 177 171 177 200 200 500 500 160 177 170 173 22233 200 260 160 177 170 170 173 273 273 260 174 174								306			H			414	100	SOF	
11/1 11/1 11/2 <th< td=""><td>П</td><td></td><td></td><td></td><td>4</td><td>DB+6</td><td>23.63</td><td>040</td><td></td><td>690</td><td>175</td><td>196</td><td>371</td><td>210</td><td>100</td><td>CEC</td><td>2 NOS 11 KV LINE, LT LINE</td></th<>	П				4	DB+6	23.63	040		690	175	196	371	210	100	CEC	2 NOS 11 KV LINE, LT LINE
1310 06553371 1m DB+3 23703 330 570 145 123 140 134426FF 1m DB+0 23549 240 510 145 177 150 1772336FF 1m DB+0 23121 270 530 150 145 177 150 177 2m 2m 2m 2m 144 177 170 13705451 1m DC+3 22173 300 560 1660 183 166 171 2m DC+3 22173 300 565 134 144 171 2m DC+3 22173 300 566 133 166 171 2m DC+4 22376 2m 500 1660 123 166 171 DC 2m DA+6 2343 2m 500 126 101 180 167647 1m DC+6 23443 2m 2m			12/1		101	2		365	005	RQF	170	182	352	175	193	268	VILL-BUDHBALA
140 17:428FR1 1m DB+0 23.649 230 570 145 1/3 150 17:2253FR1 15m DB+0 23121 270 630 153 177 177 150 17:370'FR1 2.m DC+3 22.273 300 240 153 166 170 18'0645'L1 1m DC+3 22.329 300 565 141 177 177 170 18'0645'L1 1m DC+3 23.376 246 566 123 166 171 DC+1 1m DC+3 23.376 246 560 123 141 120 180 01*4658'L1 1m D0+0 23.376 246 566 124 141 120 190 12'05'38'R1 1m D0+0 23.459 246 560 124 141 120 191 12'05'38'R1 1m D0+0 23.459 246 560 126		AP13	13/0	06°53'33"LT	1m.	DB+3	23.703	330	800	200			000	727	195	262	VILL-BANGA GIRI
mm 240 510 117 117 150 17723577 1.5m D8+0 23121 270 550 153 177 160 17770777 2m DC+3 2273 360 560 153 177 170 187064571 1m DC+3 2376 380 565 134 144 171 Dm+0 2307 2376 380 565 134 144 171 Dm+0 2376 2376 585 144 170 180 014655717 1m DB+0 23376 246 565 134 144 190 127053877 1m DB+0 2349 246 566 127 170 190 127053877 1m DC+0 2349 246 566 128 117 210 127053877 1m DC+0 2349 246 560 126 117 210 127053717 <td></td> <td>AD44</td> <td>1400</td> <td>13°43'28"RT</td> <td>1m</td> <td>DB+0</td> <td>23,549</td> <td></td> <td>330</td> <td>570</td> <td>145</td> <td>123</td> <td>700</td> <td>101</td> <td>121</td> <td></td> <td></td>		AD44	1400	13°43'28"RT	1m	DB+0	23,549		330	570	145	123	700	101	121		
150 172235R1 15m 050 201 200 153 177 160 1773707R1 2m DC+3 22273 360 650 153 177 160 1773707R1 2m DC+3 22376 360 650 153 174 170 1670645T1 1m DC+3 22376 286 531 141 120 171/1 1670645T1 1m D6+0 23376 286 531 141 120 180 01*4656T1 1m D6+0 23376 246 502 155 117 180 12°055T1 1m D6+0 2349 246 502 155 117 190 17°0576T 1m D6+6 2349 246 502 155 131 210 18°5654T1 1m D6+6 2349 246 502 155 131 210 18°5054T1 1m D6+6 2365		AL IT	041			0.00	101 00	240	240	510	117	117	234	115	106	221	VILL-DAMDAMA 11 KV LINE
160 17°3707RT 2m DC+3 22.273 360 650 153 111 1770 2m DC+3 22.273 360 660 163 166 1771 2m DA+0 22.078 300 565 134 144 171 2m DA+0 23.376 248 566 183 166 1800 01'45'ST 1m DB+0 23.376 248 566 128 101 1800 12'03'SFT 1m DB+0 23.345 248 566 128 101 1901 12'03'SFT 1m DB+0 23.345 244 560 128 117 2000 18'50'SfLT 1m DB+0 23.443 244 502 165 117 210 01'14'SFT 1m DB+6 246 502 155 207 210 18'50'SfLT 1m DB+6 2365 247 502 155		AP15	15/0	12°22'35"RT	1.5m.	D#80	171.02	270				24.4	330	164	176	340	VILL-DAMDAMA
170 18'06'45''1 1m DC+3 23289 300 660 183 166 1711 2m 2m DA+0 22078 286 531 141 120 1800 101* 2m DA+0 22078 286 531 141 120 180 17''1 1m DB+0 23376 248 565 134 141 120 180 12'03'38''T 1m DB+0 234'3 248 246 502 165 117 190 12'03'38''T 1m DB+0 234'39 415 502 165 131 200 18*50'54''T 1m D0+6 234'39 415 670 206 131 210 01*5'55''T 1m D0+6 234'39 415 670 79 131 211 1'' 1''' 1'' 1''' 502 165 131 210 18*55''T 1m		AP16	16/0	17°37'07"RT	2.m.	DC+3	22.273	036	270	630	103	111	200				BND,CT ROAD
1/10 17/10 17/10 17/10 17/10 17/10 17/10 17/10 17/11				+ multipleces	And A	DC+3	23 299	000	360	660	183	166	349	189	170	304	AILL-OOMOL OOK
1711 2m DA+0 22.078 285 555 531 141 120 1800 112°033871 1m DB+0 23376 246 506 128 101 1900 12°033871 1m DB+0 23373 246 506 128 101 1901 27033871 1m DB+0 23313 246 502 155 117 1901 27033871 1m DC+6 2343 246 502 155 117 2101 2m DA+6 22.443 247 502 126 131 2100 18'50'54"1 1m DC+6 23.459 415 415 72 207 2101 155m DC+6 23.43 304 647 174 131 2101 155m 374 304 644 174 171 2300 13'53 2646 260 260 97 130 2101 <td></td> <td>AP17</td> <td>17/0</td> <td>18-0645 LI</td> <td>100</td> <td>2</td> <td></td> <td>300</td> <td></td> <td>EQE</td> <td>134</td> <td>144</td> <td>278</td> <td>140</td> <td>140</td> <td>280</td> <td>VILL-GUMAI JORA</td>		AP17	17/0	18-0645 LI	100	2		300		EQE	134	144	278	140	140	280	VILL-GUMAI JORA
180 01*46'56'LT 1m. DB+0 23376 565 551 141 120 190 12*03'38'RT 1m. DB+0 23313 260 506 128 101 190 12*03'38'RT 1m. DB+0 2313 260 505 155 117 190 10*0'145'RT 1m. DC+6 23.459 415 670 206 131 210 01*0'145'RT 1m. DC+6 23.459 247 502 657 125 207 210 01*0'145'RT 1m. DC+6 23.459 247 502 657 125 207 210 01*0'145'RT 1m. DC+6 23.459 247 502 126 131 210 11*39'1'T 1m. DC+6 23.55 247 502 126 131 210 11*39'1'T 1m. DC+3 2363 340 691 169 155 210			17/1		2m.	DA+0	22.078	285		000				110	001	V26	D TYPE FOR RIVER CROSSING
nov U.T.W.M.M. DB+0 23913 248 506 128 101 19/0 1270338FRT 1m DB+6 23.433 260 502 165 117 19/1 2m DA+6 22.443 2m 502 165 117 2m DA+6 23.459 415 657 125 207 21/0 18*50'64"LT 1m D0+6 23.459 415 667 125 207 21/0 18*50'54"LT 1m D0+6 23.55 565 715 716 717 21/1 D1*6 23.5 255 747 502 657 79 719 21/1 D1*145 1m D0+6 23.65 247 502 651 79 79 21/1 D1*1 D0+0 23.89 304 644 174 171 230 18*2631*RT 1m D0+0 23.891 360 661 109	Π	0100	1010	D1ºA6/68"I T	,m	DB+0	23.376		585	531	141	120	261	140	671	1.14	NALA, 11 KV LINE, RIVER
1300 12*03/38*RT 1m. UH*0 623*13 260 165 117 16/1 2m. DA+6 22.443 243 667 126 155 117 16/1 2m. DA+6 22.443 243 667 125 155 207 2000 18*50'54*LT 1m. DC+6 23.459 415 667 126 208 131 21/0 01*0145*RT 1m. DC+6 23.459 415 670 208 131 21/1 01*0145*RT 1m. DC+6 23.55 247 502 561 179 168 21/1 1m. DC+0 22.887 304 644 174 171 2200 17*3927*L1 1m. DC+3 23.561 304 661 169 165 2300 18*2631*RT 1m. DC+3 23.561 361 661 174 171 2300 18*2631*RT 1m. DC+3 23.434 361 661 109 153 2400	Γ	AFTB	10/0	10000		0	01000	248	246	506	128	101	229	125	100	225	VILL-GUMALJORA NALA CT ROAD LT LINE
19/1 2m DA+6 22,443 242 602 165 11/ 200 18*50'54"L 1m DC+6 23,459 415 670 208 131 21/0 01*01'45"RT 1m DC+6 23,459 415 670 208 131 21/1 D1+6 23.5 23.5 555 657 125 207 21/1 15m DA+6 23.65 247 502 561 131 21/1 D1+0 D2-887 304 644 174 168 2200 32*43'57"RT 1m D0+0 22'887 340 644 174 230 17'3927"LT 1m D0+0 22'841 341 304 644 174 230 17'3927"LT 1m D0+0 22'841 341 360 661 169 165 240 18*26'31"RT D0+0 25'41 341 361 601 109 153 250 33'53'42"LT DD+3 26'46' 260 250 97 133 260 33'91'43"LT DD+3 25'79 360 360 149 142 2800 24'43'42"R		AP19	19/0	12°03'38'RT	Ē	DB+0	23,913	260	24.2			1.1.1	000	160	120	280	VILL-GUMAI JORA
1001 18*50'54"LT 1m. DC+6 23459 415 502 657 125 207 2000 18*50'54"LT 1m. DC+6 23459 415 657 125 20 21/10 01*01'45"RT 1m. DB+6 23.5 255 502 502 131 21/11 1.5m. DA+6 23.65 247 502 551 79 130 22/11 1.5m. DA+6 23.65 347 502 551 79 130 23/0 17*3927"LT 1m. DD+0 22.887 304 544 174 171 23/0 18*2631"RT 1m. DC+3 23.540 360 661 169 155 23/0 18*2631"RT 1m. DC+3 23.543 361 661 169 153 2500 18*2631"RT DD+3 25.619 304 661 109 153 2500 18*263"TT DD+3 <td></td> <td></td> <td>4014</td> <td></td> <td>2m.</td> <td>DA+6</td> <td>22.443</td> <td></td> <td></td> <td>502</td> <td>165</td> <td>111</td> <td>707</td> <td>001</td> <td>2001</td> <td></td> <td>11 KV LINE, BUND</td>			4014		2m.	DA+6	22.443			502	165	111	707	001	2001		11 KV LINE, BUND
2000 18*5054*LT 1m. D0+b 23.433 415 50.0 208 131 21/0 01*01*45*RT 1m. D8+6 23.5 25.5 602 724 168 21/1 1.5m. DA+6 22.865 247 602 561 79 168 22/0 3245*RT 1.m. D0+0 22.887 30.4 64.4 174 171 23/0 11*3927*LT 1m. D0+0 22.887 30.4 64.4 174 171 23/0 11*3927*LT 1m. D0+0 22.887 30.4 64.4 174 171 23/0 19*2631*RT 1m. D0+0 23.81 340 661 169 153 26/0 19*2631*RT D0+0 25579 361 361 169 153 28/0 19*2631*RT D0+0 25579 360 550 97 165 28/0 19*26454 260 2560 <td< td=""><td>T</td><td></td><td>1/61</td><td></td><td></td><td></td><td>UP YEU</td><td>242</td><td>502</td><td>657</td><td>125</td><td>207</td><td>332</td><td>130</td><td>207</td><td>337</td><td>VILL-BALU JHORA</td></td<>	T		1/61				UP YEU	242	502	657	125	207	332	130	207	337	VILL-BALU JHORA
21/0 01'01'45'RT 1m. DB+6 235 555 415 670 206 70 21/1 1.5m. DA+6 22.865 247 602 124 168 22/0 32435'RT 1.5m. DA+6 22.865 247 602 174 168 22/0 32435'RT 1m. D0+0 22.887 304 562 174 171 23/0 17'3927'LT 1m. D0+0 22.887 304 664 174 171 23/0 19'2631'RT 1m. DC+3 23.591 340 664 174 171 23/0 19'2631'RT 1m. DC+3 24341 361 601 109 153 26/0 19'2631'RT D0+0 25.579 300 660 149 142 26/0 33'5342'LT D0+0 25.579 300 660 149 142 27/0 33'5342'LT D0+3 27.342 360 577 218 143 28/0 29/0 24'4342''' D0+3 25.50 350 577 218 77 28/0 24'4342'''' D0+3 3500 577 218 <td< td=""><td></td><td>AP20</td><td>20/0</td><td>18°50'54"LT</td><td>1m,</td><td>DC+6</td><td>23.40A</td><td>415</td><td>900</td><td></td><td>000</td><td>101</td><td>330</td><td>208</td><td>135</td><td>343</td><td></td></td<>		AP20	20/0	18°50'54"LT	1m,	DC+6	23.40A	415	900		000	101	330	208	135	343	
	T	AP21	21/0	01°01'45"RT	1m.	D8+6	23.5	110	415	670	2002	101	200			1.00	CT ROAD
21/1 Devol 24/7 24/7 79 130 220 32/455/FI 1m D0+0 22/887 304 502 561 79 130 23/0 1773927"LT 1m D0+0 22/887 304 502 561 79 171 23/0 1773927"LT 1m D0+0 22/891 340 691 169 174 23/0 1773927"LT 1m DC+3 24/341 340 691 169 165 24/0 18*2631"RT D0+0 22/819 361 361 601 169 165 24/0 18*2631"RT D0+10 25/519 361 361 601 169 153 26/0 13*3912"RT D0+10 25/519 300 660 149 142 26/0 38*12"LT D0+10 25/519 300 660 149 142 27/0 38*12"LT D0+10 25/519 300 500 577 218 142 28/0 24*142"RT D0+3 27.342 360 360 577 218 77 28/0 24*142"RT D0+3 35802 360 577 218 <td></td> <td></td> <td></td> <td></td> <td></td> <td>9770</td> <td>27 695</td> <td>662</td> <td></td> <td>502</td> <td>124</td> <td>168</td> <td>192</td> <td>130</td> <td>155</td> <td>285</td> <td></td>						9770	27 695	662		502	124	168	192	130	155	285	
22/0 32/43/53*RT 1m. DD+0 22/887 30/4 50/2 50/2 50/1 7/3 23/0 1773927"LT 1m. DC+3 23/591 30/4 6/4 17/4 17/1 23/0 1773927"LT 1m. DC+3 23/591 30/4 6/4 17/4 17/1 24/0 182/531"RT DD+3 24/64 35/1 36/1 6/1 169 165 25/0 1373912"RT DD+3 26/464 250 5/50 9/7 133 26/0 33'5342"LT DD+40 25/79 300 6/60 14/9 14/2 27/0 39'1943"LT DD+3 27/342 360 5/7 21/8 7/7 28/0 24'4342"RT DC+0 35/802 360 5/7 21/8 7/7			21/1		"UC'I	UM10	24.000	247			0E	130	209	95	116	211	VILL-BALU JHORA
2300 17°3927"L1 1m DC+3 23.591 304 644 174 171 2300 17°3927"L1 1m DC+3 23.591 340 691 169 165 2400 18°2631"R1 DC+3 24341 351 601 169 165 2500 13°3912"R1 DB+3 26.464 350 601 109 153 2600 13°3912"R1 DB+3 26.464 250 950 97 133 2610 33°5342"L1 DB+3 26.464 250 360 97 133 2710 39°1943"L1 DD+3 27.342 360 577 218 142 28/0 24'4342"R1 DC+0 35.02 360 577 218 77 28/0 24'4342"R1 DC+0 35.02 360 577 218 77 28/0 24'4342"R1 DC+0 35.02 560 577 218 77		AP22	22/0	32°43'53"RT	1m.	0+00	22.887	100	502	100	2	00	204			000	TAR ROAD, NALA
2300 17*392/LL1 III. DOV 340 691 169 165 2400 18*2631*RT DC+3 24341 351 601 109 153 2500 13*3912*RT DB+3 26.464 350 550 97 133 2610 13*3912*RT DB+3 26.464 250 550 97 133 2610 33*6342*LT DD+0 25579 300 660 149 142 2710 39*1943*LT DD+3 27.342 360 577 218 77 2810 24*342*RT DC+0 35.802 360 577 218 77				1 Interest	1.	DC13	23.591	304	304	644	174	171	340	188	163	352	NALA
24/0 18*2631*RT DC+3 24.341 351 340 691 103 103 25/0 13*3912*RT DB+3 25.464 351 351 601 109 153 26/0 13*3912*RT DB+3 25.464 250 351 601 109 153 26/0 33*6342*RT DD+0 25579 300 660 149 142 27/0 39*1943*LT DD+3 27.342 360 360 577 218 77 28/0 24'4342*RT DC+0 35.802 360 577 218 77		AP23	23/0	17°39'2/1LI	100	2.00		340		100	160	165	334	117	183	300	VILL-GANDHIPARA
25/0 13'39'12''RT DB+3 26.464 351 601 109 153 26/0 33'53'12''RT DD+0 2550 550 97 133 26/0 33'53'2''TT DD+0 2557'9 300 560 97 133 27/0 39'1943'LT DD+3 27'342 360 577 218 142 28/0 24'4342''RT DC+0 35.802 360 577 218 77		AP24	24/0	18°26'31"RT		DC+3	24.341	361	340	IRO	201	201				OBC	TAR ROAD, NALA VILL-NEW BAJMARI
Z500 10.3812.01 0 D312.01 0 97 133 2600 33°5342"LT DD+0 25579 300 550 97 133 2610 33°5342"LT DD+3 27.342 300 560 149 142 27/0 39°1943"LT DD+3 27.342 360 577 218 77 28/0 24'4342"RT DC+0 35.802 960 577 218 77			aria	TCHCKWOOCK	-	DB+3	26.464		351	601	109	153	262	110	64	7007	CT ROAD
26/0 33*5342*LT DD+0 25.579 300 500 500 500 142 142 27/0 39*1943*LT DD+3 27.342 360 577 218 142 28/0 29*1943*LT DC+0 35.802 360 577 218 77 28/0 24'4342*RT DC+0 35.802 360 577 218 77 28/0 24'4342*RT DC+0 35.802 360 577 218 77	4	AP25	25/0	12 21 82 21				250	VED	6.60	27	133	230	105	135	240	VILL-KAAR GNOW
27/0 39*1943°LT DD+3 27.342 300 660 149 142 28/0 24'43'42"RT DC+0 35.902 360 577 218 77 28/0 24'43'42"RT DC+0 35.902 360 577 218 77 CHECKED BY USTL	2	AP26	26/0	33°53'42"LT		0+00	25.579	300	007	200					011	766	CPD 2m.
Z/10 39/13+30 Ll DC+0 35/802 360 577 218 77 28/0 24'43'42''RT DC+0 35/802 360 577 218 77 28/0 24'43'42''RT DC+0 35/802 360 577 218 77 28/0 24'43'42''RT DC+0 35/802 BV USTL 218 77			0.00	T INCEADAODO		DD+3	27.342	2000	300	660	149	142	291	148	RII	007	VILL-KAAR GNOW
28/0 24*43*27 DC+0 35.802 35.90 0/7 2/10 USTL USTL USTL		AP27	27/0	38-1843 LI		2		360		56.5	518	11	293	241	55	297	VILL-BADA GHOKRI
CHECKED BY USTL USTL	1	AP28	28/0	24°43'42"RT		DC+0	35.802		360	1/6	210	-					
UST UST UST	B	004			CHEC	KED BY			SUBM	ITTED BY			0	PGCIL	ВΥ	×	APPROVED BY PGCIL
ANG UPPS	SUR	/EYED BY				USTL			-	JSTL					×	REAL	16
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Alternation Alternation Alternation Maternation							UNIQU ROJECT : 1 TOWEI	JE STRI 132 KV. D/C T R SECHDULL	UNIQUE STRUCTURES & TOWERS LTD. PROJECT : 132 KV. D/C TRAINSMISSION LINE FROM PHULBARI TO AMPATI TOWER SECHDULE FROM GANTRY (PHULBARI) TO AP 50	ES & TC	NVER: NOM PHUL LEARI) TC	S LTD. BARI TO A D AP 50 KNERPSIP)	IMPATI				STRUCTURES & T O W E R S E M T E D
C No MAGE GF MARE TYPE DER TO COMPORING Restriction (MTRS) Restricion (MTRS) Restriction (MTRS)							CLIENT: P	OWERGRID	CORPORAT		WEIGHT	SPAN HOT	(MTRS)	WEIGHT	SPAN COL	D(MTRS)	CINISSOCIO
200 007450FT DB3 4070 217 217 211 226 111 226 111 242 200 00795FT DB3 40.01 314 214 266 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 101 560 100 560 101 560 100 100 560 100 101 <	L NO.	AP NO.	LOC No	ANGLE OF DEVIATION	RAISED CHIMNEY	TOWER	LEVEL ON THE LOCATION	SPAN (MTRS)	SECTION LENGTH (MTRS)	SUM OF ADJ-SPAN (MTRS)	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	REMARKS/CRUSSING
200 07-460 VI 201 217 217 531 115 111 226 111 242 200 07-460 VI De3 40 / 01 314 314 560 266 416 96 10 156 266 310 07-460 VI De3 46 / 01 706 276 710 325 51 16 26 266 266 266 716 266							formul										CT ROAD 11 KV LINE LT LINE
200 07-4609(1 08-3 40.701 314 217 201 115 216 115 216 <								217			115	111	226	125	117	242	CPD 1m VILL-BAS PUK
200 01/01/02/01 51/4 31/4 51/4 51/4 50/6 200 11/7 30/6 11/6 31/6 50/6 10/7 30/6 10/7 30/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 10/6 20/6 20/6 10/6 20/6			000	079 A BIOD 1		DB-3	40.701		217	531	CLL	111					2 NOS CI RUAU
300 62°0736711 DB-3 46.40/1 246 210 255 256 710 246 717 710 246 717 710 246 717 710 246 710 246 710 246 710 246 710 246 710 256 236 210 255 236 210 236 210 236 210 236 210 236 210 236 210 236 236 210 236	48	AP29	NRZ	01 40 03 11				314	140	560	203	147	350	210	155	365	CFU LOIN VILLAND OF
310 09-002Frt DB-3 6567 -70 246 416 99 155 254 91 150 275 16 100 320 16*2027817 DD-3 27.965 195 170 275 16 216 180 235 330 16*2027817 DD-3 27.965 170 170 285 55 16 49 145 30 340 38:375817 DD+0 22.288 170 410 24 42 144 123 237 110 125 235 341 38:375817 DD+0 27.988 216 482 160 13 143 123 237 110 125 235 356 0072554787 1m DA+0 21.088 256 482 500 119 125 235 130 125 356 0072554787 1m DA+0 21.088 256 482 500 119 125 235 130 125 235 356 007355477 1m DA+0 21.08 125 236 132 132 236 132 236 356 007447071 1m D	101	AP30	30/0	03°07'58"RT		DB-3	49.404	24C	014	200				-	406	CVC	CPD 1m.VILL-RAS PUR
310 09*4002F1 Los 100 170 265 16 710 265 36 216 49 746 715 290 330 49°0359'1 D0-9 27.946 170 155 355 164 49 745 155 30 340 39°753'1 D0-9 27.946 170 170 31 23 110 175 30 340 39°753'1 D0+0 27.48 740 170 40 13 23'7 110 175 30 341 D0+0 21478 290 490 13 23'7 110 175 23'5 350 007254FR1 1m D4+0 210,88 250 490 13 23'7 110 175 23'5 351 007054FR1 1m D4+0 210,88 250 490 13'7 23'7 110 12'5 21'1 20'7 350 007055FFR1 1m D4+0 210,88 250 490 12'5 21'1 22'5 20'7 350 007057FFR1 1m D4+0 210/8 21'2 13'7 23'7 10'0 12'5 20'7	57					200	45,607	04.7	246	416	66	155	254	10	3	4.4	CT ROAD
32/0 16/2/00781 DC.3 40/023 1/0 3/2 1/0 3/2 1/1 1/15 3/2 1/1 1/15 3/2 1/1 1/15 3/2 1/1 1/15 3/2 1/1 1/15 1/1 1/15 1/1 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 1/15 1/10 </td <td>50</td> <td>AP31</td> <td>31/0</td> <td>09°40'02"R1</td> <td></td> <td>Nan</td> <td>2000</td> <td>170</td> <td></td> <td>200</td> <td>15</td> <td>210</td> <td>225</td> <td>-35</td> <td>215</td> <td>180</td> <td>CPD 2m VILL-RAS PUR</td>	50	AP31	31/0	09°40'02"R1		Nan	2000	170		200	15	210	225	-35	215	180	CPD 2m VILL-RAS PUR
330 460355711 D0-3 2796 170 410 34 125 146 170 410 34 3410 38975771 D0+0 22.46 170 410 34 125 160 2 130 132 3411 D0+0 22.46 170 410 34 123 136 100 122 3610 38975717 D0+0 21.478 220 492 144 123 237 110 122 236 3561 D0+0 21.028 250 492 500 133 122 136 132 287 3561 D0+0 21.028 250 492 500 139 122 130 122 3561 D0+0 21.028 250 491 126 117 22 130 222 3561 D0+0 21.06 129 136 160 2 136 132 287 3561 D0+0 21.06 126 132 210 122 132 287 3561 D0+03 22.32 241 961 126 136 127 286 3560 D0+13 2447 <td>1</td> <td>AD22</td> <td>32/0</td> <td>16°32'02"RT</td> <td></td> <td>DC-3</td> <td>40.022</td> <td>ACC</td> <td>170</td> <td>323</td> <td>2</td> <td>-</td> <td></td> <td></td> <td>145</td> <td>00</td> <td>CPD 1m.</td>	1	AD22	32/0	16°32'02"RT		DC-3	40.022	ACC	170	323	2	-			145	00	CPD 1m.
330 49035911 000 2248 240 170 410 34 175 160 2 130 132 34/1 3975311 0040 2248 240 170 470 347 173 236 100 125 236 34/1 0505 144 123 237 110 126 135 100 129 350 002554787 1m 0440 21038 230 492 500 159 137 236 100 129 350 002554787 1m 0A40 21038 230 492 500 159 236 130 226 350 002554787 1m 0A40 21038 230 500 119 126 130 222 350 002554787 1m 0A43 2196 500 117 222 130 222 350 00240417 1m 0B43 2363 241 222 130 226 130 226 350 0441071 1m 0B43 232 247 222 130 232 247 232 360 10441071 1m 0B43	0						300 7.0	CC1	155	325	-55	104	49	-140	DI	222	LT LINE
340 3873755TT DD-0 22.248 240 1/0 2/0 1/1 1/2 2/2 2/2 34/1 DA-0 21.478 22.2 492 714 123 237 100 125 235 36/1 D0-0 21.478 22.2 492 502 129 97 226 100 129 290 36/1 D0-02554TGT Im DA+0 21.028 250 500 119 122 237 201 36/1 DA+3 21.948 2807 260 130 135 124 122 130 225 36/2 DA+3 21.948 2807 500 119 125 244 122 130 232 36/3 DA+3 21.948 2807 500 119 126 130 129 230 36/3 DA+3 21.948 280 673 124 126 130 232 36/0 U1044UT DB+3 22.447 322 798 181 234 280 38/3 DA+3 21.94 136 126 136 126 126 126 38/1 DA+3 244 <td>52</td> <td>AP33</td> <td>33/0</td> <td>48°03'59"LT</td> <td></td> <td></td> <td>2007114</td> <td>170</td> <td>027</td> <td>110</td> <td>24</td> <td>125</td> <td>160</td> <td>2</td> <td>130</td> <td>132</td> <td>VILL-OLD BHAJMARI</td>	52	AP33	33/0	48°03'59"LT			2007114	170	027	110	24	125	160	2	130	132	VILL-OLD BHAJMARI
34/1 DA+0 214/18 33 492 114 123 241 110 126 135 100 126 135 100 126 135 100 126 135 100 126 135 100 126 135 100 126 135 100 126 135 201 135 201 135 201 135 201 136 132 206 133 132 206 136 132 201 202 201	53	AP34	34/0	39°37'53"LT		0+00	22.248	040	0/1	2			Loc	440	105	235	
3411 Data 252 492 502 129 97 226 135 100 129 350 0073554781 1m DA+0 21028 250 492 500 159 127 285 156 132 287 351 DA+3 2387 250 500 119 125 285 156 132 287 352 DA+3 21968 250 441 125 117 242 120 252 350 1074404LT DB+3 22.047 281 410 126 117 244 120 286 350 1074404LT DB+3 22.047 282 798 184 234 418 126 121 249 350 1074404LT 1m DB+3 22.047 322 327 798 186 234 418 126 286 427 370 041140TL 1m DB+3 22.447 322 327 798 169 129 286 500 380 300033781 1m DB+3 1957 476 266 242 281 410 246 380 20033781	3					0+01	21.478	244		492	114	123	231	011	140		
350 00*2554*R1 1m DA+0 21028 250 750 132 287 132 287 361 1	54		34/1			2.00		252	AGD	502	129	26	226	135	100	129	CT ROAD 11 KV LINE
36/1 DA+3 22837 500 153 132 600 153 132 600 153 132 130 252 35/2 DA+3 2798 2590 600 119 125 117 242 121 249 1	55	AP35	35/0	00°25'54"RT	1m.	DA+0	21.028	250	704				Bon	155	132	287	
36/1						DA+3	22.837			500	153	132	707	201			CT ROAD
35/2 DA+3 21368 250 491 125 117 242 128 121 249 35/3 10 10*4404°T 22.023 2417 991 673 124 138 262 135 145 280 35/3 10*404°T 10*40 22.043 22.447 322 232 798 184 234 415 280 35/0 10°4404°T 1m DB+9 19577 476 796 242 281 410 245 285 530 37/0 04*41*40°T 1m DB+9 19577 476 796 242 281 410 245 285 530 38/0 30'0033°RT 1m DD+9 20.648 320 6640 102 141 243 109 129 238 38/1 2.5m DA+0 17.701 320 6640 179 160 339 191 190 351 38/2 2m DA+3 18.69 320 329 196 160 339 191 190 351 38/2 1m DA+3 19.617 255 110 145 306 160	56		35/1				0000	250		500	119	125	244	122	130	252	
36/3 10*43 22.023 241 991 673 12 111 74 12 145 280 36/0 10*4404*17 1m 08+3 22.447 322 241 991 673 124 138 262 135 145 280 37/0 04*4140*17 1m 08+9 19577 322 322 798 184 234 418 185 242 427 38/0 30003787 1m 00+9 20648 320 476 776 786 241 243 109 129 238 38/1 260 10 17/01 320 476 776 266 242 281 410 246 129 139 238 38/1 26m 17/01 320 476 776 266 242 281 410 246 129 139 238 38/1 1m D0+9 20648 320 640 179 160 159 238 530 530 38/2 7m D4+3 18.69 320 640 179 160 157 215 317 38/3 1m D6+0	57		35/2			DA+3	21.908	250					CFC	178	121	249	
36/3 70/4 71 241 961 673 124 138 262 135 145 280 36/0 10°4404'LT DB+3 22.447 322 322 798 184 234 418 185 242 427 37/0 04°4140'LT 1m DB+9 19.577 476 476 786 786 787 410 245 285 530 38/0 30°0337R1 1m DD+9 20648 320 476 786 242 281 410 245 285 530 38/0 30°0337R1 1m DD+9 20648 320 476 786 242 281 410 245 285 530 38/1 25m DA+0 17701 320 640 102 141 243 109 129 238 38/2 2m 18.59 575 460 179 160 351 317 38/3 1m DA+3 18.617 255 109 159 238 117 215 38/3 1m DA+3 18.617 255 110 130 239 181 130 151						DA+3	22.023			491	125	111	747	041			11 KV LINE
36/0 10*4404*17 DB+3 22.447 322 331 22.447 322 331 19.577 476 242 418 242 427 37/0 04*4140*17 1m DB+9 19.577 372 322 322 798 184 234 410 245 285 530 37/0 04*4140*17 1m DD+9 20.648 320 476 786 242 281 410 245 285 530 38/0 30*033*RT 1m DD+9 20.648 320 476 786 242 281 410 245 109 129 238 38/1 20*033*RT 1m D0+9 20648 320 640 179 160 129 238 199 177 317 317 317 317 317 317 317 317 317 317 317 317 317 317 317 317 317 317 <t< td=""><td></td><td></td><td>35/3</td><td></td><td></td><td>2.40</td><td></td><td>241</td><td>004</td><td>R73</td><td>124</td><td>138</td><td>262</td><td>135</td><td>145</td><td>280</td><td>VILL-PAKADAGA</td></t<>			35/3			2.40		241	004	R73	124	138	262	135	145	280	VILL-PAKADAGA
370 04*1140*1 1m DB+9 19.577 322 798 184 234 418 130 3810 30*0033*RT 1m DD+9 20.648 320 476 796 242 281 410 246 285 530 3810 30*033*RT 1m DD+9 20.648 320 476 796 242 281 410 246 285 530 3811 25m DA+0 17.701 320 640 102 141 243 109 129 238 3812 2m DA+3 18.59 320 575 640 102 141 243 109 157 317 3812 2m DA+3 18.617 320 575 160 145 305 191 190 351 3813 1m DA+3 19617 255 555 110 130 239 917 215 380 18°54/56°RT 1m DC+0 20114 300 1215 555 110 130 157 317 3910 18°54/56°RT 1m DC+0 20114 300 1215 565 110 130 </td <td>60</td> <td>AP36</td> <td>36/0</td> <td>10°44'04"LT</td> <td></td> <td>DB+3</td> <td>22.447</td> <td>200</td> <td>221</td> <td>200</td> <td></td> <td></td> <td></td> <td>100</td> <td>CVC</td> <td>427</td> <td>VILL-PARADAGA</td>	60	AP36	36/0	10°44'04"LT		DB+3	22.447	200	221	200				100	CVC	427	VILL-PARADAGA
37/0 04 41 40 L1 III DD+9 2/6 476 796 242 281 410 246 285 530 38/0 30'00'33'RT 1m D0+9 20.648 320 476 796 242 281 410 245 285 530 38/1 25m DA+0 17.701 320 640 102 141 243 109 129 238 38/2 2m DA+3 18.59 320 575 640 172 141 243 100 157 317 38/2 2m DA+3 18.59 320 575 640 172 145 367 191 190 351 38/2 1m DA+3 18.56 320 575 160 145 307 177 215 38/2 1m DC+0 20114 300 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m DC+0 20114 300 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m DC+0 20114 300	00			A most of the t	w.p	DR+9	19.577	777	322	798	184	234	418	100	C.46.		
38/0 30'00'33'RT 1m DD+9 20648 320 40 102 141 243 106 129 238 38/1 2.5m DA+0 17.701 320 640 102 141 243 106 129 238 38/2 2m DA+3 16.56 320 640 177 160 157 317 38/2 1m DA+3 16.617 326 575 160 157 317 317 38/3 1m DA+3 19.617 255 515 160 157 317 317 38/3 1m DC+0 20114 300 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m DC+0 20114 300 1215 555 110 130 215 317 215 39/0 18'54'56'RT 1m DC+0 20114 300 1217	59	AP37	37/0	04*41 40 LI	11			476	A76	796	242	281	410	245	285	530	VILL-PARADAGA
38/1 2.5m DA+0 17.701 20 640 102 141 430 101 190 351 38/2 2m DA+3 18.59 320 640 179 160 351 191 160 351 38/2 1m DA+3 19.617 320 640 179 160 351 191 190 351 38/2 1m DA+3 19.617 255 575 160 145 305 191 150 317 38/3 18°54°56°RT 1m DC+0 20114 300 1215 555 110 130 239 98 117 215 317 39/0 18°54°56°RT 1m DC+0 20114 300 1215 555 110 130 239 98 117 215 117 215 39/0 18°54°56°RT 1m DC+0 2014 300 101 157 215 106	61	AP38	38/0	30°00'33"RT	1m.	6+00	20.648	320	4/0				Cru	100	129	238	
38/1	5				un fin	DA+D	17.701			640	102	141	742	201			
38/2 2m DA+3 18.59 320 575 160 145 305 180 137 317 38/3 1m DA+3 19.617 255 575 160 145 305 180 137 317 38/3 1m DA+3 19.617 255 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m D0+0 20114 300 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m D0+0 20114 300 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 100 130 239 98 117 216 137 117 215 39/1 18'54'RT 300 121'L 300 151'L 100 130 239 98 117 215 117	62		38/1		Z'OHL	2.42		320		RAD	179	160	339	191	190	351	2 NOS LT LINE CT ROAD
38/3 1m DA+3 19.617 355 160 145 365 100 107 215 38/0 18'54'56'RT 1m DC+0 20114 300 12'15 555 110 130 239 98 117 2'15 2'15 39/0 18'54'56'RT 1m DC+0 20114 300 12'15 555 110 130 2'39 98 117 2'15 '115 '115 '115	60		38/2		2m.	DA+3	18.59	002		200				101	467	317	NOOL I LINE
38/3 1m UAre 256 1215 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m DO+0 20114 300 12'15 555 110 130 239 98 117 215 39/0 18'54'56'RT 1m DO+0 20114 300 UST 20 98 117 215 JUST UST UST UST UST 12'15 555 110 130 239 98 117 215 JUST DO+0 20114 300 UST UST PGGUL 20	60		-			0.40	10.617	NZC		575	160	145	305	160	101	-10	LT LINE
39/0 18*54756*RT 1m DC+0 20/14 300 1215 3015 1215 3015 1215 3015 1215 3015 1215 3015 1215 3015 1215 3015 1215 3015 1215	64		38/3		1m.	DA+3	10.01	255			110	130	239	98	117	215	VILL-SIDHAKANDI
CHECKED BY UST. SUBMITTED BY UST. UST. SUBMITTED BY UST. DOLOTION THIN AFTURATION UST. DOLOTION TO THE AFTURATION OF A STATE	90	P79A		18°54'56"RT	1m.	DC+0	20.114	000	1215	000	2			H	-		CIEN
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132 KV PHULBARI – AMPATI ROUTE ALIGNMENT (WEST GARO HILLS. MEGHALAYA)



(POLE DETAILS)

	SL No.	Lat	Long
1	SP-1	25.85424	90.08555
	SP-2	25.85464	90.08547
11	SP-3	25.85508	90.08537
	SP-4	25.85549	90.08527
	SP-5	25.8563	90.08511
	SP-6	25.85669	90.085
LT	SP-7	25.8571	90.08489
-	SP-8	25.85752	90.08475
	SP-9	25.85792	90.08465
	SP-10	25.86007	90.08581
	SP-11	25.86041	90.08605
	SP-12	25.86079	90.08626
	SP-13	25.86115	90.08645
	SP-14	25.86186	90.0869
	SP-15	25.86222	90.08709
	SP-16	25.86262	90.08722
	SP-17	25.863	90.08735
	SP-18	25.86374	90.08773
	SP-19	25.86411	90.08795
N	SP-20	25.86447	90.08815
×	SP-21	25.86483	90.08837
Г	SP-22	25.86555	90.08883
	SP-23	25.86582	90.08916
	SP-24	25.86612	90.08948
	SP-25	25.86668	90.09013
	SP-26	25.86695	90.09047
	SP-27	25.86723	90.09081
F	SP-28	25.86737	90.09123
	SP-29	25.86746	90.09166
M	SP-30	25.85864	90.08464
4	DP-1	25.853441	90.085691
	DP-2	25.853838	90.085613
R	DP-3	25.855897	90.08518
	DP-4	25.861526	90.086675
	DP-5	25.863386	90.087496
	DP-6	25.865187	90.088594
	DP-7	25.866408	90.089793
	DP-8	25.867599	90.092048
	DP-9	25.867827	90.092395
×	3P-1	25.858296	90.084525
	4P-1	25.859101	90.084834
	4P-2	25.859924	90.085697



33 KV PHULBARI - CHIBINANG LINE



POLE	DETAILS	(33kv	LINE FR	tom phu	LBARI	- PHULB	ART (SH
SL No.	Lat	Long					
SP-1	25.85343	90.08454					
SP-2	25.85377	90.08439					
SP-3	25.85404	90.08366					
SP-4	25.85389	90.08326			9/		
SP-5	25.85362	90.08292		. /			
SP-6	25.85337	90.08256		Route			
SP-7	25.8531	90.08221	-	Don			
SP-8	25.85283	90.08187		Pr-			
SP-9	25.85292	90.08106	1				
SP-10	25.85318	90.08071					
SP-11	25.85347	90.08038	-				
SP-12	25.85377	90.08005					
SP-13	25.85447	90.07956					
SP-14	25.85485	90.07935	-				
SP-15	25.85523	90.07918	-				
SP-16	25.85559	90.07898	-				
SP-17	25.85633	90.07863	-				
SP-18	25.85672	90.07847	-				
SP-19	25.85711	90.07827	-				
SP-20	25.85747	90.07807	-				
SP-21	25.85817	90.07757	-				
SP-22	25.85854	90.07734					
SP-23	25.8589	90.07712	-				
SP-24	25.85964	90.07661	-				
SP-25	25.86002	90.07637					
SP-26	25.86038	90.07614	-				
SP-27	25.86138	90.07555					
SP-28	25.86166	90.0753	-				
SP-29	25.86195	90.07498					
SP-30	25.86225	90.07416	1				
SP-31	25.86235	90.07371	-				
SP-32	25.86244	90.07325	1				
SP-33	25.86255	90.07282					
SP-34	25.86275	90.07193					
SP-35	25.86284	90.07148					
SP-36	25.86294	90.07103	-				
SP-37	25.86304	90.07058	1				
SP-38	25.86322	90.0697	1				
SP-39	25.86331	90.06925					
SP-40	25.8634	90.0688					
SP-41	25.86348	90.06841					
SP-42	25.86365	90.06751	1				
SP-43	25.86375	90.06705	1				
SP-44	25.86391	90.06663	1				
SP-45	25.8641	90.06622]	/			

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Route - 2



SP-46	25.86442	90.06535
SP-47	25.8646	90.06492
SP-48	25.86478	90.0645
SP-49	25.86494	90.06409
SP-50	25.86529	90.06321
SP-51	25.86545	90.0628
SP-52	25.86562	90.06237
SP-53	25.86577	90.06193
SP-54	25.86613	90.06107
SP-55	25.86629	90.06064
SP-56	25.86646	90.06021
SP-57	25.86664	90.05979
SP-58	25.86697	90.05894
SP-59	25.86715	90.05848
SP-60	25.86732	90.05806
SP-61	25.8675	90.05763
SP-62	25.86781	90.05681
SP-63	25.86796	90.05637
SP-64	25.86815	90.05595
SP-65	25.86838	90.05557
SP-66	25.86884	90.0548
SP-67	25.86908	90.05439
SP-68	25.86956	90.05363
SP-69	25.86983	90.05328
SP-70	25.87012	90.05292
SP-71	25.87038	90.05256
SP-72	25.87098	90.05194
SP-73	25.87128	90.05165
SP-74	25.87156	90.05133
SP-75	25.87186	90.05101
SP-76	25.87247	90.05036
SP-77	25.87277	90.05006
SP-78	25.87305	90.04973
SP-79	25.87337	90.04943
SP-80	25.87394	90.04877
SP-81	25.87425	90.04845
SP-82	25.87453	90.0481
SP-83	25.87517	90.04773
SP-84	25.87559	90.04774
SP-85	25.87599	90.04776
SP-86	25.87677	90.04748
SP-87	25.87718	90.04738
SP-88	25.8776	90.04731
SP-89	25.87801	90.0472
SP-90	25.87883	90.04701
SP-91	25.87921	90.04682

Rowler 2

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SP-92	25.87962	90.04667
SP-93	25.88	90.04657
SP-94	25.88082	90.04637
SP-95	25.88119	90.04616
SP-96	25.88153	90.04592
SP-97	25.88179	90.04556
SP-98	25.88237	90.0449
SP-99	25.88267	90.04458
SP-100	25.88299	90.04429
SP-101	25.88336	90.04408
SP-102	25.88408	90.04358
SP-103	25.88443	90.04332
SP-104	25.88477	90.04301
SP-105	25.8851	90.04274
SP-106	25.88578	90.04222
SP-107	25.88606	90.04189
SP-108	25.88638	90.04157
SP-109	25.88662	90.04121
SP-110	25.8871	90.04045
SP-111	25.88735	90.04011
SP-112	25.88758	90.03972
SP-113	25.88776	90.03932
SP-114	25.88822	90.03851
SP-115	25.88853	90.03821
SP-116	25.88873	90.03781
SP-117	25.88908	90.03696
SP-118	25.88922	90.03652
SP-119	25.88912	90.03591
SP-120	25.88877	90.03562
SP-121	25.88842	90.03541
SP-122	25.88811	90.03522
DP-1	25.85411	90.079784
DP-2	25.855959	90.078775
DP-3	25.857809	90.077803
DP-4	25.859278	90.076858
DP-5	25.887941	90.034571
DP-6	25.888902	90.037372
DP-7	25.887945	90.038886
DP-8	25.88683	90.040839
DP-9	25.88546	90.0425
DP-10	25.883736	90.043849
DP-11	25.882035	90.045188
DP-12	25.880409	90.046463
DP-13	25.878429	90.047133
DP-14	25.876406	90.047656
DP-15	25.87483	90.047766

Route 2



1

HE

DP-16	25.873658	90.049097
DP-17	25.872172	90.050674
DP-18	25.870678	90.052252
DP-19	25.869291	90.053986
DP-20	25.86859	90.055179
DP-21	25.867657	90.057216
DP-22	25.866798	90.059363
DP-23	25.865965	90.061491
DP-24	25.865123	90.063656
DP-25	25.864272	90.065766
DP-26	25.863563	90.067959
DP-27	25.863125	90.070133
DP-28	25.862655	90.072372
DP-29	25.862159	90.074582
DP-30	25.861107	90.075757
DP-31	25.860756	90.075931
DP-32	25.85278	90.084661
3P-1	25.852765	90.081436
4P-1	25.854028	90.084069
4P-2	25.887739	90.03495
4P-3	25.889356	90.036115

Souter 2





POLE DETAILS (33 KY LINE FROM PHULBARI TO EWISTING

SL No.	Lat	Long
SP-1	25.85385	90.08454
SP-2	25.85428	90.08446
SP-3	25.85466	90.0844
SP-4	25.85505	90.08435
SP-5	25.85584	90.08433
SP-6	25.85625	90.08434
SP-7	25.85666	90.08437
SP-8	25.85706	90.08446
SP-9	25.85784	90.08464
SP-10	25.85825	90.0848
SP-11	25.85894	90.08471
DP-1	25.857475	90.084566
DP-2	25.855443	90.084325
DP-3	25.853451	90.084601
DP-4	25.853011	90.084684
DP-5	25.85913	90.084511
3P-1	25.85864	90.084924

Rowlend





Route-1 G.P.S Coardinate (TIKIRIKILA TO RAKSAMBRE (PUTAMATI) 33 KV LINE)

<u>SL No.</u>	Lat	Long
SP-1	25.94466	90.17991
SP-2	25.94504	90.18062
SP-3	25.94545	90.1814
SP-4	25.94564	90.1818
SP-5	25.9458	90.18221
SP-6	25.94596	90.18262
SP-7	25.94629	90.18344
SP-8	25.94645	90.18386
SP-9	25.94663	90.18428
SP-10	25.94679	90.18471
SP-11	25.94711	90.1855
SP-12	25.94721	90.18593
SP-13	25.94731	90.1864
SP-14	25.9474	90.18688
SP-15	25.9476	90.18777
SP-16	25.94768	90.18822
SP-17	25.94777	90.18867
SP-18	25.94786	90.18912
SP-19	25,94808	90.19002
SP-20	25.94822	90.19045
SP-21	25.94835	90.19089
SP-22	25,94848	90.19133
SP-23	25.94873	90.19222
SP-24	25.94888	90.19265
SP-25	25.94898	90.19309
SP-26	25.94941	90.19439
SP-27	25.94926	90.19396
SP-28	25.94952	90.19482
SP-29	25.94966	90.19525
SP-30	25.94992	90.19612
SP-31	25.95008	90.19657
SP-32	25.95021	90.19702
SP-33	25.95021	90.19744
SP-34	25.95054	90.19744
SP-35	25.9506	90.19872
SP-36	25.95065	recent and the second sec
SP-30	25.95076	90.19918
SP-38	25.95084	90.2001
		90.2006
SP-39	25.95088	90.20108
SP-40	25.95094	90.20155
SP-41	25.95104	90.20244
SP-42	25.9512	90.20286
SP-43	25.95132	90.20328
SP-44	25.95143	90.20373
SP-45	25.95156	90.20418
SP-46	25.9517	90.20464
SP-47	25.95196	90.20548
SP-48	25.95207	90.2059



	T	
SP-49	25.9522	90.20636
SP-50	25.95237	90.20679
SP-51	25.95256	90.20722
SP-52	25.95272	90.20805
SP-53	25.95262	90.2085
SP-54	25.95236	90.20887
SP-55	25.95175	90.2094
SP-56	25.95143	90.2097
SP-57	25.95112	90.21
SP-58	25.95078	90.21031
SP-59	25.95017	90.21096
SP-60	25.94987	90.21131
SP-61	25.94968	90.21173
SP-62	25.9495	90.21213
SP-63	25.9488	90.21295
SP-64	25.94843	90.21305
SP-65	25.94779	90.21367
SP-66	25.94762	90.21409
SP-67	25.94725	90.21478
SP-68	25.94724	90.21525
SP-69	25.94722	90.2157
SP-70	25.9472	90,21615
SP-71	25.94716	90.21707
SP-72	25.94717	90.21754
SP-73	25.94733	90.21848
SP-74	25.94753	90.21888
SP-75	25.94772	90.21932
SP-76	25.94794	90.21952
SP-77	25.9484	90.22045
SP-78	25.94862	90.22082
SP-79	25.94885	90.22119
SP-80	25.94908	90.22115
SP-81	25.94951	90.22233
SP-81 SP-82		
SP-82	25.94974	90.22272
SP-83	25.94997	90.2231
SP-85	25.95018	90.22349
	25.95062	90.22427
SP-86	25.95086	90.22465
SP-87	25.95106	90.22504
SP-88	25.9513	90.22543
SP-89	25.95152	90.22583
SP-90	25.95194	90.22661
SP-91	25.95214	90.22703
SP-92	25.95238	90.22742
SP-93	25.95256	90.22782
SP-94	25.953	90.22862
SP-95	25.95325	90.22897
SP-96	25 05240	90.2293
	25.95348	
SP-97	25.95348	90.23061
SP-97 SP-98	and the second se	the second s
	25.95446	90.23061



CD 101		00.004.00
SP-101 SP-102	25.95586	90.23163
	25.9564	90.23226
SP-103	25.95641	90.2331
SP-104	25.95632	90.23356
SP-105	25.95626	90.23402
SP-106	25.95617	90.23446
SP-107	25.9561	90.2349
SP-108	25.9559	90.23579
SP-109	25.9557	90.2362
SP-110	25.95553	90.23664
SP-111	25.95539	90.23708
SP-112	25.95521	90.23748
SP-113	25.95487	90.23834
SP-114	25.95473	90.23867
SP-115	25.9544	90.23947
SP-116	25.95426	90.23991
SP-117	25.95408	90.24034
SP-118	25.95389	90.24075
SP-119	25.95372	90.24119
SP-120	25.95338	90.24201
SP-121	25.95322	90.24244
SP-122	25.95306	90.24284
SP-123	25.95288	90.24323
SP-124	25.95272	90.24367
SP-125	25.95236	90.24453
SP-126	25.95219	90.24498
SP-127	25.95199	90.24539
SP-128	25.95176	90.24579
SP-129	25.95153	90.24617
SP-130	25.95107	90.24697
SP-131	25.95084	90.24737
SP-132	25.95064	90.24773
SP-133	25.95041	90.24811
SP-134	25.94996	90.2489
SP-135	25.94971	90.2493
SP-136	25.94949	90.2497
SP-137	25.94927	90.25007
SP-138	25.94883	90.25083
SP-139	25.94861	90.25122
SP-140	25.94836	90.25161
SP-141	25.94815	90.25196
SP-142	25.94758	90.25256
SP-143	25.94722	90.25281
SP-144	25.94688	90.25303
SP-145	25.94652	90.25328
SP-146	25.94374	90.25531
SP-147	25.9458	90.25379
SP-148	25.94545	90.25401
SP-149	25.94511	90.25426
SP-150	25.94475	90.25451
CD 101	25.9444	90.25475
SP-151	23.3444	90.23475



SP-153	25.94327	90.25607
SP-154	25.94305	90.25648
SP-155	25.94261	90.25725
SP-156	25.94236	90.25763
SP-157	25.94214	90.25803
SP-158	25.94192	90.25842
SP-159	25.94169	90.2588
SP-160	25.94126	90.25954
SP-161	25.94105	90.25996
SP-162	25.94078	90.2603
SP-163	25.94049	90.26063
SP-164	25.93985	90.26124
SP-165	25.93953	90.26154
SP-166	25.9392	90.26186
SP-167	25.9385	90.26232
SP-168	25.93807	90.26229
SP-169	25.93768	90.26227
SP-170	25.93725	90.26227
SP-171	25.93612	90.26218
SP-172	25.93572	90.26217
SP-173	25.9353	90.26218
SP-174	25.9349	90.26224
SP-175	25.93407	90.2623
SP-176	25.93367	90.26232
SP-177	25.93326	90.26239
SP-178	25.93284	90.26243
SP-179	25.93242	90.26245
SP-180	25.93161	90.26253
SP-181	25.93146	90.26262
SP-182	25.95374	90.22961
DP-1	25.944817	90.180228
DP-2	25.945232	90.180228
DP-3	25.94612	the second building of the second sec
DP-4	25.946967	90.183034 90.185121
DP-4 DP-5	25.947971	
DP-6		90.189562
DP-0 DP-7	25.947506	90.187319
	25.948611	90.191769
DP-8 DP-9	25.94915	90.193514
DP-9 DP-10	25.94979	90.195674
	25.950463	90.197872
DP-11	25.95072	90.199644
DP-12	25.950977	90.201962
DP-13	25.951808	90.205036
DP-14	25.952729	90.207622
DP-15	25.952081	90.209136
DP-16	25.950479	90.210613
DP-17	25.949429	90.212552
DP-18	25.949169	90.212845
DP-19	25.947918	90.213235
DP-20	25.947246	90.214316
DP-21	25.947187	90.216606
DP-22	25.94716	90.21807



DP-23	25.948175	90.220068
DP-24	25.949279	90.221933
DP-25	25.950392	90.22389
DP-26	25.951745	90.226217
DP-27	25.952766	90.228248
DP-28	25.953962	90.229929
DP-29	25.954194	90.230252
DP-30	25.956492	90.232649
DP-31	25.956029	90.235358
DP-32	25.955033	90.237906
DP-33	25.954568	90.239051
DP-34	25.953547	90.241627
DP-35	25.95255	90.244092
DP-36	25.951313	90.246571
DP-37	25.950171	90.248501
DP-38	25.949033	90.250449
DP-39	25.947934	90.252335
DP-40	25.946152	90.253524
DP-41	25.944043	90.254982
DP-42	25.942807	90.256847
DP-43	25.941478	90.259174
DP-44	25.940166	90.260947
DP-45	25.938896	90.262203
DP-46	25.936912	90.262221
DP-47	25.936522	90.262212
DP-48	25.934479	90.262258
DP-49	25.932005	90.262498
DP-50	25.931162	90.262825
3P-1	25.956228	90.231821
4P-1	25.944438	90.179481
4P-2	25.930936	90.263031





ANNEXURE – 4

NoC FROM LAND OWNERS/VILLAGE COUNCILS

Ishni/Smti Balgi Sangma
S/o /D/o
aged about
old and residing at Bangranggri, Masangpani, Nest Garo Hills
District and Owner of Land mentioned hereunder at clause (I), hereby on this day the
10th of April 2017 solemnly affirm and declare as follows:

That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-1) Ampati Transmission Line passing through my land located at Bangranggri Village West Garo Hills District Meghalaya

That I am making this declaration sincerely and conscientiously, believing the same 2) to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.



001

Land Owner

Witness :

1. Muiser Sangma. 2. Sengberth Marral

003

Isbritsmiti Mrs. Logina	Momin
S/o /D/o	
aged about	
old and residing at Masang Pani	, West Garo Hills
District and Owner of Land mentioned	hereunder at clause (I), hereby on this day the
11th of April,	2017 solemnly affirm and declare as follows :

That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-1) Ampati Transmission Line passing through my land located at Masong pani Village West Garo Hills District Meghalaya

That I am making this declaration sincerely and conscientiously, believing the same 2) to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.

Land Owner

Witness :

1. Easter Rami Ch. Homin 2. Ching chang G. Harat

004

I Shri/Smti Flora fauna Ch. Momin.
SIO IDIO. Dalendra R. Marak.
aged about
old and residing at Masangpani West Graro Hills.
District and Owner of Land mentioned hereunder at clause (I), hereby on this day the
10th of june 2017 solemnly affirm and declare as follows :
1) That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-
Ampati Transmission Line passing through my land located at
Masangpani Village West Gazo Hills District Meghalayer

That I am making this declaration sincerely and conscientiously, believing the same 2) to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.

Flora Fama ch. Mar Land Owner

Witness :

1. Jangrik & Manak 2. Bablen Somon

027

I Shri/S	mi Adesh Koch	
S/o /D/o	mi. Adesh koch iz koch	
aged about	83 years	
	•	West Garo Hills
District and Ov	wner of Land mentioned h	ereunder at clause (I), hereby on this day the
8th of	November,	

1) That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-Ampati Transmission Line passing through my land located at <u>Balujho ra</u> Village <u>Hert Gave Hills</u> District <u>Meghalaya</u>

2) That I am making this declaration sincerely and conscientiously, believing the same to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.



(Left Hand Thumb)

Witness :

1. Sukrennar Koch 2. Sumitra koch

029

I Shri/Smti Mozial Hoque S/0/D/0 Jorgser Ali aged about 45 years old and residing at Nayagaan, Hest Garo Hills District and Owner of Land mentioned hereunder at clause (I), hereby on this day the 20th of November, 2017 solemnly affirm and declare as follows:

1) That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-Ampati Transmission Line passing through my land located at Navagaon Village Mest Gano Hills, District Meghalaya

2) That I am making this declaration sincerely and conscientiously, believing the same to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.

Mrs. Barresa Bibi

Land Owner

1 Rahul Khon

Witness :

030

I Shri/Smiti Sopola Hajong Storbto Mo Baber Hajong aged about 44 years old and residing at Aryungre, Mext Garo Hills District and Owner of Land mentioned hereunder at clause (1), hereby on this day the 20th of November, 2017 solemnly affirm and declare as follows:

1) That I have no objection whatsoever for MePTCL/PGCIL to construct 132KV Phulbari-Ampati Transmission Line passing through my land located at <u>Arjung</u> Village <u>West Garo Hills</u> District <u>Meghalaga</u>

2) That I am making this declaration sincerely and conscientiously, believing the same to be true and with full knowledge that it is on the strength of this declaration that MePTCL/ PGCIL has agreed to pay compensation to me, in accordance with the schedule of rates issued by the Deputy Commissioner West Garo Hills District / West Garo Hills District Council.



Witness :

1. Anjolly Hajong

2. Nomali Hajong

ANNEXURE – 5

DETAILS OF PUBLIC CONSULTATIONS



MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED OFFICE OF THE EXECUTIVE ENGINEER (T & T) <u>TURA: MEGHALAYA : 794001.</u>

Minutes / proceedings of Public Meeting / Hearing held on 9th December 2014 at Rongkhon, TURA, West Garo Hills District, Meghalaya under North Eastern Region Power System Improvement Project (NERPSIP) in Meghalaya.

- Subject Construction of 132 KV D/C PHULBARI-AMPATI Transmission Line and associated 33 KV Distribution Network / Lines connecting 33/11 KV PHULBARI S/S (existing), RAJABALLA-BHAITBARI S/S (new), CHIBINANG S/S (new), RAKSAMGRE S/S (new), TIKRIKILLA S/S (existing) under the scope of NERPSIP in West Garo Hills District, Meghalaya
- Annexure Signatures of members of the Village Council / General Public and Officials of Meghalaya Power Transmission Corporation Limited (MePTCL) / Meghalaya Power Distribution Corporation Limited MePDCL and Power Grid Corporation of India Limited (PGCIL) who attended the meeting.

The public and officials of MePTCL / MPDCL and PGCIL who attended the meeting is enclosed in Annexure.

The Executive Engineer, T&T Division, MePTCL, Tura welcomed all the public and officials who had spared their valuable time to attend the hearing. The Executive Engineer gave a brief description about the project and he also informed that the project will be funded by the World Bank and the Central Government of India. He urged the public to co-operate and informed that the officials of PGCIL will brief them about the project.

Accordingly, Shri S. K. PAL, DGM, PGCIL briefed about the North Eastern Region Power System Improvement Project (NERPSIP) and explained the detail scope to be covered under the Project for Meghalaya. He informed that in West Garo Hills District, 132 KV D/C Transmission Line connecting 132/33 KV PHULBARI S/S (New) to 132/33 KV AMPATI S/S (Under Construction) is proposed to be constructed under the scheme for strengthening the existing Transmission Network. He also informed that from 132/33 KV PHULBARI Substation, the associated 33 KV Distribution Lines (5 Nos.) will also be constructed connecting to 33/11 KV RAJABALLA-BHAITBARI S/S (new), 33/11 KV CHIBINANG S/S (new), 33/11 KV PHULBARI S/S (Existing) and 33/11 KV RAKSAMGRE S/S (new) to 33/11 KV Tikrikilla S/S (Existing) for ensuring that the common public will be directly benefited by the Project. He also informed that care will be taken to construct the line in such a way as to avoid human habitat, but in case it is unavoidable, sufficient compensation will be paid by PGCIL as per State Government Assessment for which adequate provision has been kept in the Project Cost. He sought the co-operation of all the public to make this Project successful. Since most of the public attending the meeting belonged to Garo Community, the Executive Engineer (T&T), Tura has explained the details of the above speech delivered by POWERGRID in Garo language.

The public enquired various issues regarding compensation to be paid, final route of the line visà-vis affected persons, need for further consultation with the villagers etc.

In this regard, the Superintending Engineer, T&T Circle, MePTCL, Byrnihat and POWERGRID representative explained that at present only a tentative route is identified for the line. However, a detail survey/check survey will be carried out before construction and accordingly each and every affected landowner / person will be identified for assessment of compensation. The compensation will be paid at par with Govt. rate after joint survey of the damages. However, he explained that every care will be taken to avoid any human habitation during final survey of the line and in case if it cannot be avoided the damages caused to the public will be adequately compensated.

The Executive Engineer, WGHDD, MePDCL, Tura also spoke on the occasion to explain the benefit of the proposed Project and the need of support and cooperation from the public of the area to overcome present Voltage scenario in the areas fed by 33 KV Rongkhon-Phulbari Line.

In conclusion, the public has unanimously agreed that the construction of the transmission line and sub-stations and associated distribution lines is for the sole benefit of the State and the public, provided care should be taken to inflict minimum damage to crops, forests and any structure during construction.

The hearing concluded with the vote of thanks from the Assistant Engineer, T&T Division, Tura and also assured that all stake holder will be taken into confident during the construction.

Executive Engineer(T&T) MePTCL, TURA



MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED OFFICE OF THE EXECUTIVE ENGINEER (T & T) TURA: MEGHALAYA : 794001.

North Eastern Region Power System Improvement Project (NERPSIP) <u>PUBLIC MEETING BA HEARING O SERIKANIRANG</u> 9th DECEMBER 2014 – Rongkhon, Tura, West Garo Hills, Meghalaya

Subject:

North Eastern Region Power System Improvement Project (NERPSIP) Project-o 132 KV D/C Phulbari—Ampati Transmission Line ko salani aro nangchapgipa 33 KV Distribution Network ba Linerang ko 33/11 KV Phulbari S/S (dongsogimin), 33/11 KV Rajaballa-Bhaitbari S/S (gital), 33/11 KV Chibinang S/S (gital), 33/11 KV Raksamgre S/S (gital), 33/11 KV Tikrikilla S/S (dongsogimin) baksa chapatani.

Annexure:

Tom'anio donggipa Songni Dilgiparang, Nokmarang, mande jinma, MePTCL(Meghalaya Power Transmission Corporation Limited), MePDCL(Meghalaya Power Distribution Corporation Limited) aro PGCIL (Power Grid Corporation of India Limited)-ni Official rangni sohirang.

Tom'ani a'bachengao Executive Engineer, T&T Division, MePTCL, Tura, dingtangmancha somoiko ra'e sokbagipa officerrang aro jinmana rimchaksoaniko aganaha. Executive Engineer,T&T Division, MePTCL, Tura, Projectni gimin aro Public Hearingko ia biapo ong'atani giminba kan'dike talataha. Ua ia gital Project-ko World Bank aro India Sorkari-ni dakchakgipa tangka paisarangchi tarigen ineba talataha aro jinmani ku'mongrimaniko on'pachina didiaha aro PGCIL ni Officerrangna Projectni gimin talbate aganna somoiko on'nangaha.

Uandaken PGCIL ni DGM Pa. S. K. Pal, North Eastern Region Power System Improvement Project (NERPSIP)-ni gimin bangʻgija kattarangchi talataha aro ia Projectni ningʻo Meghalayana a'bachengatnasienggipa dingtang dingtang kamrangni gimin kan'dike aganaha. West Garo Hills District –o dongsogipa Transmission Network ko bilakbatatna, 132KV D/C Line ko 132 KV Phulbari Substation (Gital) oni 132 KV Ampati Substationona rikna manchiaha ine ua u'iataha. Unbaksana 132/33 KV Phulbari Substation (gital) oni nangchapgipa 33 KV distribution-ni line-rang (Ge'bonga) ko 33/11 KV Rajaballa-Bhaitbari S/S (gital), 33/11 KV Chibinang S/S (gital), 33/11 KV Phulbari S/S (dongsogimin), 33/11 KV Raksamgre (gital) aro 33/11 KV Tikrikilla S/S (dongsogimin) ona soke rike sale on'gen aro Projectni namgniko manderang man'gen ineba ua jinmana u'iataha. Ia janapgimin bijoliko watani lineko rikanio ba tarianio amadipet mande rochakgipa nok a'damrangkode gelgen aro gelna man'telgijagipa obostaode PGCIL A'dok Sorkarini niamo a'a chi-na aro bagan bari-rang nosto ong'anina ba gimaanina chu'onga gita Gampilaniko dakna Projectni koros o man'chapataha ineba agane on'aha. Uni gimin ia Projectko chu'sokatna gita jinmako bakrimaniko on'pachina mol'molaha. Uni agangimin kattarangko , T & T ni Executive Engineer A'chikku(Garo) chi pe'e jinmana apsan kon talate on'aha.

Tom'bimonganiona sokbagiparangoni dingtang dingtang sing'sandianirangko dakaha; jekai, Project ni Compensation gamani bewal aro Lineko rikchongmotanio lineni joljol man.nasienggipa ge'a a'pal, nok jam, bagan bari aro uandake gimaanina gampilani biding aro songni nokni manderang baksa agangrike kam ka.ani.

T & T Byrnihat Circle ni Superintending Engineer baksana PGCIL ni DGM da'o niksamsogipa Project sima nia gitasan ong'engkua aro chong'motgipa biap bichamrangko name ma'sikuja indiba Project a'bachengna skang Detail Survey ba Check Survey ko dakgen aro uni ja'mano nosto ong'atako man'nasigipa a'a nokgiparangko simsake sandigen ine aganaha. A'a nokgipa aro kamko ka'nasienggipa Department damsan nosto ong'gniko sanditaiani ja'manosa Gamani (Compensation) ko A'dok Sorkarini dongimin dam gita dakanggen ineba ua janapjolaha. Indake ong'oba, Lineko rikna bon.chote survey ka'anio man'na dipet
song nok rogipa biaprangko gelna gita jotton ka'gen ba gelna man'jatelode nosto ka'ako man'nasienggipa manderangni gam ba bosturangna kraa gita Compensationko on.na nanggnok ineba ua agandapangaha.

WGHDD, Tura ni Executive Engineer ua somoi-ni bako ia Projectni gamchatani aro uko nangnikani gimin aganaha aro ia Project-ko chu'sokgipa ong'atna sakantini dakchakani aro bakrimanikoba nanganikoba aganjolaha; jedakode da'o 33 KV Rongkhon Phulbari Line oniko bijoliko jakkalenggipa songrango nambata Voltage-o bijoliko man'nangpagnok.

Bon'chote tom'bimonganiona sokbagiparangba ia Transmission Line aro Sub-station aro un'baksa Distribution Line rangko rikani-ara Meghalaya a'dokna aro uno songdonggipa gimiknan namgniko ra'bagen indiba amadipet songdonggiparangni a.a chi, mi misi, buring bolgrimrang ko nanga gitasan nosto ong'ataiode nambegen ine ku'onangaha.

la tom'aniko T & T Division-ni Assistant Engineer pilak sokbagiparangko mitelan baksa Lineko rikengmitingo nangchapgipa manderangni bakrimani baksasa dakgen ine ka.dongataniko agane matchotataha.

Executive Engineer (T & T) MePTCL, Tura



MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED OFFICE OF THE EXECUTIVE ENGINEER (T & T) TURA: MEGHALAYA : 794001.

Minutes / proceedings of Public Meeting / Hearing held on 10th December 2014 at Phulbari, West Garo Hills District, Meghalaya under North Eastern Region Power System Improvement Project (NERPSIP) in Meghalaya

- Subject Construction of 132 KV D/C PHULBARI-AMPATI Transmission Line and associated 33 KV Distribution Network / Lines connecting 33/11 KV PHULBARI S/S (existing), RAJABALLA-BHAITBARI S/S (new), CHIBINANG S/S (new), RAKSAMGRE S/S (new), Tikrikilla S/S (existing) under the scope of NERPSIP in West Garo Hills District, Meghalaya
- Annexure Signatures of members of the Village council / general public and officials of Meghalaya Power Transmission Corporation Limited (MePTCL)/ Meghalaya Power Distribution Corporation Limited (MePDCL) and Power Grid Corporation of India Limited (PGCIL) who attended the meeting.

The public and officials of MePTCL / MePDCL and PGCIL who attended the meeting is enclosed in Annexure.

At the outset of the meeting, the Executive Engineer, T&T Division, MePTCL, Tura welcomed all the public and officials who had spared their valuable time to attend the hearing. The Executive Engineer then gave a brief description about the Project and the purpose of Public Hearing that is held at that place. He also informed that the project will be funded by the World Bank and the Central Government of India and urged the public to co-operate and introduced officials of MePTCL/PGCIL present in the meeting.

Accordingly, Superintending Engineer, T&T Circle, MePTCL, Byrnihat, spoke on the importance of 132 KV Line connectivity in Garo Hills Region and sought peoples' support and cooperation to make all the upcoming Transmission Projects for providing quality Power Supply.

Shri S. K. PAL, DGM, POWERGRID briefed about the North Eastern Region Power System Improvement Project (NERPSIP) and explained the detail scope to be covered under the Project for Meghalaya. He informed that in West Garo Hills District, a 132 KV D/C Transmission Line connecting 132/33 KV PHULBARI S/S (New) to 132/33 KV AMPATI S/S (Under Construction) is proposed to be constructed under the scheme for strengthening the existing transmission network. He also informed that from 132/33 KV PHULBARI Substation, the associated 33 KV Distribution Lines (5 Nos.) will also be constructed connecting to 132/33 KV PHULBARI S/S (New) to 33/11 KV RAJABALLA-BHAITBARI S/S (new), 33/11 KV CHIBINANG S/S (new), 33/11 KV PHULBARI S/S (Existing) and 33/11 KV RAKSAMGRE S/S (new) to 33/11 KV Tikrikilla S/S (Existing) for ensuring that the common public will be directly benefited by the Project. He also informed that care will be taken to construct the line in such a way as to avoid human habitat, but in case it is unavoidable, sufficient compensation will be paid by PGCIL as per State Government Assessment for which adequate provision has been kept in the project cost. He sought the co-operation of all the public to make this project successful.

The public enquired various issues regarding compensation to be paid, final route of the line visà-vis affected persons, need for further consultation with the villagers etc.

In this regard, the Superintending Engineer, T&T Circle, Byrnihat and POWERGRID representative explained that at present only a tentative route is identified for the line. However, a detail survey/check survey will be carried out before construction and accordingly each and every affected landowner / person will be identified for assessment of compensation. The compensation will be paid at par with Govt. rate after joint survey of the damages. However, he explained that every care will be taken to avoid any human habitation during final survey of the line and in case if it cannot be avoided the damages caused to the public will be adequately compensated.

In conclusion, the public has unanimously agreed that the construction of the transmission line and sub-stations and associated distribution lines is for the sole benefit of the State and the public, provided care should be taken to inflict minimum damage to crops, forests and any structure during construction.

The hearing concluded with the vote of thanks from the Executive Engineer (T&T), Tura.

Executive Engineer (T&T) TKULARA MePTCL, TURA



MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED OFFICE OF THE EXECUTIVE ENGINEER (T & T) TURA: MEGHALAYA : 794001.

North Eastern Region Power System Improvement Project (NERPSIP) <u>PUBLIC MEETING BA HEARING O SERIKANIRANG</u> <u>10th DECEMBER 2014 – Phulbari, West Garo Hills, Meghalaya</u>

Subject:

North Eastern Region Power System Improvement Project (NERPSIP) Project-0 132 KV D/C Phulbari—Ampati Transmission Line ko salani aro nangchapgipa 33 KV Distribution Network ba Linerang ko 33/11 KV Phulbari S/S (dongsogimin), 33/11 KV Rajaballa-Bhaitbari S/S (gital), 33/11 KV Chibinang S/S (gital), 33/11 KV Raksamgre S/S (gital), 33/11 KV Tikrikilla S/S (dongsogimin) baksa chapatani.

Annexure:

Tom'anio donggipa Songni Dilgiparang, Nokmarang, mande jinma, MePTCL (Meghalaya Power Transmission Corporation Limited), MePDCL(Meghalaya Power Distribution Corporation Limited) aro PGCIL (Power Grid Corporation of India Limited)-ni Official rangni sohirang.

Tom'ani a'bachengao Executive Engineer, T&T Division, MePTCL, Tura, dingtangmancha somoiko ra'e sokbagipa officerrang aro jinmana rimchaksoaniko aganaha. Executive Engineer,T&T Division, MePTCL, Tura, Projectni gimin aro Public Hearingko ia biapo ong'atani giminba kan'dike talataha. Ua ia gital Project-ko World Bank aro India Sorkari-ni dakchakgipa tangka paisarangchi tarigen ineba talataha aro jinmani ku'mongrimaniko on'pachina didiaha aro tom'aona sokbagipa MePTCL aro PGCIL ni Officerrangko jinmana mesoke on'nangaha.

Unikoa, Superintending Engineer, T&T Circle, MePTCL, Byrnihat, 132 KV Transmission Lineko Garo Hills ni a.jarangona sokpinggrikna nangani gimin aganaha aro nambata bijoliko watna jinmani bakrimpaaniko nangnikaniko janapjolaha.

PGCIL ni DGM Pa. S. K. Pal, North Eastern Region Power System Improvement Project (NERPSIP)-ni gimin bang'gija kattarangchi talataha aro ia Projectni ning'o Meghalayana a'bachengatnasienggipa dingtang dingtang kamrangni gimin kan'dike aganaha. West Garo Hills District -o dongsogipa Transmission Network ko bilakbatatna, 132KV D/C Line ko 132 KV Phulbari Substation (Gital) oni 132 KV Ampati Substationona rikna manchiaha ine ua u'iataha. Unbaksana 132/33 KV Phulbari Substation (gital) oni nangchapgipa 33 KV distribution-ni line-rang (Ge'bonga) ko 33/11 KV Rajaballa-Bhaitbari S/S (gital), 33/11 KV Chibinang S/S (gital), 33/11 KV Phulbari S/S (dongsogimin), 33/11 KV Raksamgre (gital) aro 33/11 KV Tikrikilla S/S (dongsogimin) ona soke rike sale on'gen aro Projectni namgniko manderang man'gen ineba ua jinmana u'iataha. Ia janapgimin bijoliko watani lineko rikanio ba tarianio amadipet mande rochakgipa nok a'damrangkode gelgen aro gelna man'telgijagipa obostaode PGCIL A'dok Sorkarini niamo a'a chi-na aro bagan bari-rang nosto ong'anina ba gimaanina chu'onga gita Gampilaniko dakna Projectni koros o man'chapataha ineba agane on'aha. Uni gimin ia Projectko chu'sokatna gita jinmako bakrimaniko on'pachina mol'molaha.

Tom'bimonganiona sokbagiparangoni dingtang dingtang sing'sandianirangko dakaha; jekai, Project ni Compensation gamani bewal aro Lineko rikchongmotanio lineni joljol man.nasienggipa ge'a a'pal, nok jam, bagan bari aro uandake gimaanina gampilani biding aro songni nokni manderang baksa agangrike kam ka.ani.

T & T Byrnihat Circle ni Superintending Engineer baksana PGCIL ni DGM da'o niksamsogipa Project sima nia gitasan ong'engkua aro chong'motgipa biap bichamrangko name ma'sikuja indiba Project a'bachengna skang Detail Survey ba Check Survey ko dakgen aro uni ja'mano nosto ong'atako man'nasigipa manderangni gam ba bosturangna kraa gita Compensationko on.na nanggnok ineba ua agandapangaha.

Bon'chote tom'bimonganiona sokbagiparangba ia Transmission Line aro Sub-station aro un'baksa Distribution Line rangko rikani-ara Meghalaya a'dokna aro uno songdonggipa gimiknan namgniko ra'bagen indiba amadipet songdonggiparangni a.a chi, mi misi, buring bolgrimrang ko nanga gitasan nosto ong'ataiode nambegen ine ku'onangaha.

Tom'aniko Executive Engineer T&T, Tura pilak sokbagiparangna mitelpilaniko agane matchotataha.

11/12/14 Executive Engineer (T & T) MePTCL, Tura

PROJECT SUMMARY



In order to strengthen the power scenario of the North Eastern States including Meghalaya, 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/ distribution lines. The NERPSIP in the state of Meghalaya broadly aims at:-

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

Meghalaya Power Transmission Corporation Limited (MePTCL) is the owner for the projects in the state of Meghalaya under NERPSIP. Under the scope of NERPSIP, inter-alia, construction of 132 KV D/C Phulbari—Ampati Transmission Line (Appx. KM) and associated 33 KV distributions lines connecting 33 KVPHULBARI S/S (existing), RAJBALLABHAITBARI (new) CHIBINANG (new) RAKSAMGRE (new) will be taken up MePTCL. The construction of the above transmission line and distribution lines do not require any permanent land acquisition and all the temporary damages caused will be adequately compensated. Adequate provision has been made in NERPSIP for payment of compensation to the project affected families for any damages caused during the project.

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

PROJECT NI GIMIN KANDIKE TALATANI

Salgro-Salaram A'dokrango, Meghalaya A'dokko man'chape, bijoli onani ba jakalani obostako bilakbatatna gita, World Bank tangka paisarangni gita dakchakaniko man'e India Sorkari North Eastern Region Power System Improvement Project (NERPSIP)-ko a'bachengtaha. Gital Power Sub-station-rangko rikna, Transmission aro Distribution Linerangko dal'dapatna aro uandake je gitcham dong'engggipa Sub-stationrang aro Transmission Linerangko dal'dapatna miksonge ia Projectko ko a'bachengtaha. Meghalaya a'doko NERSIP ni mongsongbate miksonganirangara :

- Meghalaya A'dokni bijoliko watani aro on'nani networkni load-ko bilakdapatna aro unbaksana bijoliko watani aro on'nani noksan-ko (T & D) komiatna.
- Chu'onga gita bijoliko on'na man'na gita bijoliko nangani ba am'ani obostarangko chu'onga gita nirok sandiani aro chu'soktani.

NERSIP-ni ningo, Meghalaya Power Transmission Corporation Limited (MePTCL) ia project-ko, Meghalaya a'doko chalaigipa' ong'a. Ia NERPSIP-ni chol on'aninio, 132 KV D/C Phulbari—Ampati Transmission Line (chanchichipe km) aro un'baksa 33 KV distribution-ni line-rang 33 KV PHULBARI S/S (dongsogimin), RAJBALLA BHAITBARI (gital) CHIBINANG (gital) RAKSAMGRE (gital) -rangko MePTCL tarina jak-o ra'aha. Ia agangimin bijoliko watani lineko rikanio ba tarianio pangnajolna gita a'a chiko brena nang'ani dongjawa indiba iako rikanio dikdiksana ba bang'gija a'a chi-na aro bagan bari-rang nosto ong'anina ba gimaanina chu'onga gita gampilskaaniko dakgen. Je nokdangrangan ia project-o kam ka'mitingo a'a chi aro bagan bari nosto ong'aniko ba gimaani ong'giparangna NERSIP-ni ningo gampilskana gita chu'onga gita tangka paisarnagko chame don'aniko dakmanaha.

Meghalaya A'doko ia North Eastern Power System Improvement Project (NERPSIP) ko kam ka'anichi ia a'dokni songna nokna namgniko ra'bachongmotgen ine chinga ka'donga.

Meghalaya Power Transmission Corporation Line Executive PTCL) Executive Transformation PTCL) Transmission & Transformation Tra

Public Hearing on " Construction of 132KV D/C Line from Phulbari to Ampati" at Rongkhon, West Garo Hills on 09.12.2014

Members Present

SI. No.	Name & Designation(if any)	Signature
1	SUPAL, DAN (POWERGNO)	OVER
2 .	O. Gr. Singh. (ACE W. Zom)	a zamin
3	R. Syjem	Anghajiy
4	T.K. MARAK	- CA
5	A.F. G. MOMIN	Fal:24
6	DIPJYOTI BARUNH (PGGL)	AB glizin
7	Birendre nath Hajoy (MepTCL)	a aginging
8	F. M. C . Momin	Ser.
9	Smt. S. K. Sangma.	Sona 12/14.
10	Waljung A Sargua Damalqui	
11	Pident socnopus Dingrapo	
12	Dinap Marak Nerybalpara	
13	Aubanian Marak Dingrapara	10
14	Riksim marak Chambagre	- Rike
15	Rikking warak wang gapara	B
16	Merthe peller	Relar
17	pajerg March Mangagere	p-m
18	Mileren Sarger Margagen	h
19	Mesin Saryma marggyan	\sim
20	Rovin morok Romssonyri	
21	Roseline Ch. Marak Damelgre	Chuard
22	S.K. Data, Tura.	St
23	D. H. Ray. Roughton.	trag
24	S. Bordeni, Rupelin.	Min
25	A. M. Sayme	Charley

Sengery A. Jayna (Chitoletale) Bringtone D. Sargne. 26 Dangma. 27 Dag who 28 Winathson - R. Marcel 29 Billing & Sangura 30 Binoth Rabha Qu Majen Barmac 31 he Cin/ -32 Nildon Mark. 33 JOTIN BORMAH A. K Muleny 34 Ram Balak Jace Demunati Bastor GIDIEZ HEAT 35 36 अवार्ट् 37 Balin Dus. ppooroun 38 BOWZ pmax 39 Asharity wash, 40 sul Wingston Sargue Stillwell Jargu. Mehiston & Morrak 41 Asyn. 42 Mmarak 43 44 45 . 46 47 i 48 49 50 51 52 53 54 55

PROJECT SUMMARY

10 8



In order to strengthen the power scenario of the North Eastern States including Meghalaya, 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/ distribution lines. The NERPSIP in the state of Meghalaya broadly aims at:-

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

Meghalaya Power Transmission Corporation Limited (MePTCL) is the owner for the projects in the state of Meghalaya under NERPSIP. Under the scope of NERPSIP, inter-alia, construction of 132 KV D/C Phulbari—Ampati Transmission Line (Appx. KM) and associated 33 KV distributions lines connecting 33 KVPHULBARI S/S (existing), RAJBALLABHAITBARI (new) CHIBINANG (new) RAKSAMGRE (new) will be taken up MePTCL. The construction of the above transmission line and distribution lines do not require any permanent land acquisition and all the temporary damages caused will be adequately compensated. Adequate provision has been made in NERPSIP for payment of compensation to the project affected families for any damages caused during the project.

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

PROJECT NI GIMIN KANDIKE TALATANI

Salgro-Salaram A'dokrango, Meghalaya A'dokko man'chape, bijoli onani ba jakalani obostako bilakbatatna gita, World Bank tangka paisarangni gita dakchakaniko man'e India Sorkari **North Eastern Region Power System Improvement Project (NERPSIP)**-ko a'bachengtaha. Gital Power Sub-station-rangko rikna, Transmission aro Distribution Linerangko dal'dapatna aro uandake je gitcham dong'engggipa Sub-stationrang aro Transmission Linerangko dal'dapatna miksonge ia Projectko ko a'bachengtaha. Meghalaya a'doko NERSIP ni mongsongbate miksonganirangara :

- Meghalaya A'dokni bijoliko watani aro on'nani networkni load-ko bilakdapatna aro unbaksana bijoliko watani aro on'nani noksan-ko (T & D) komiatna.
- Chu'onga gita bijoliko on'na man'na gita bijoliko nangani ba am'ani obostarangko chu'onga gita nirok sandiani aro chu'soktani.

NERSIP-ni ningo, Meghalaya Power Transmission Corporation Limited (MePTCL) ia project-ko, Meghalaya a'doko chalaigipa ong'a. Ia NERPSIP-ni chol on'aninio, 132 KV D/C Phulbari—Ampati Transmission Line (chanchichipe km) aro un'baksa 33 KV distribution-ni line-rang 33 KV PHULBARI S/S (dongsogimin), RAJBALLA BHAITBARI (gital) CHIBINANG (gital) RAKSAMGRE (gital) -rangko MePTCL tarina jak-o ra'aha. Ia agangimin bijoliko watani lineko rikanio ba tarianio pangnajolna gita a'a chiko brena nang'ani dongjawa indiba iako rikanio dikdiksana ba bang'gija a'a chi-na aro bagan bari-rang nosto ong'anina ba gimaanina chu'onga gita gampilskaaniko dakgen. Je nokdangrangan ia project-o kam ka'mitingo a'a chi aro bagan bari nosto ong'aniko ba gimaani ong'giparangna NERSIP-ni ningo gampilskana gita chu'onga gita tangka paisarnagko chame don'aniko dakmanaha.

Meghalaya A'doko ia North Eastern Power System Improvement Project (NERPSIP) ko kam ka'anichi ia a'dokni songna nokna namgniko ra'bachongmotgen ine chinga ka'donga.

Meghalaya Power Transmission Corporation Limitedver Transformation Division

Public Hearing on " Construction of 132KV D/C Line from Phulbari to Ampati" at MeECL Complex, Phulbari, West Garo Hills on 10.12.2014

Members Present

Sl. No.	Name & Designation(if any)	Signature
1	SKPAL, DGN (POWALED)	rover
2	R. Canen	Dun
3	TKMarak	For
4	DIPJYOTI BARUAH (PGCIL)	1 De
5	F.M.C. MOMIN	, br
6	B.N. Hoyony	m
7	Smit. S. K. Sangma	Sono712/14
8	S. Rahman	-61.
9	Frankline Langna	- ASA
10	A. Rahma model	Am
11	A. Rahme model Jesligter N. Sayung	2 9/12/14
12	M. R. Boro	me
13	Abuy S.K	24-5.10
14	Sarcettell Songne	Segn
15	Ralejing sangma	Re_
16	Mofra L HOQUE Reparop	Har
17	Winsun . Ch. Momin	le marie
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27 Hauch Alundo R. Marak. Lanjoy Shome 28 ACE Paramamanda Zarrat uddi Src 29 Koch Gr.B. 30 Jorgan A. Szager 31 B 32 MI Foci Swipakings Beneth son . R. March. 33 Starlin mamin 34 Rashidur Islams 35 Mitra Tha Par GATER HEAD 36 37 5195721032817 81969 213 328n7 38 lor orala Roy 39 pappor 40 D. Rabha Shiner Rabba 41 los Gaufan Besimelary 42 Preaibitha Sangona 43 Bang one Dilling Langune. Billion Marak 44 45 Any BA Befilson Manak 46 Ginath Manach. 47 Rus. Roliisen Sangura 48 49 Jublash ch. Jaka 50 Thicilinda Congra. Aledies Sobur Sarker -Sig 51 Jokan 52 ALP. 53 Abu Jahrs Ahmed. Qu 54 Georgga H. Sorrania. Jon Sefora Rohman. 55 Pilbin the Sangua A 56

Phtographs of Public Consultation held at Rongkhon (Tura) on 09.12.2014









Phtographs of Public Consultation held at Phulbari on 10.12.2014







Details of Informal meeting held on 16.04.2018 with Villagers/PAP at 132/33 kV Phulbari Substation

Substation	Date of meeting	No. of villagers interacted during meeting	Location of Public Consultation	District	Remarks
132/33 KV Phulbari	16/04/2018	12	Phulbari 132/33 kV Substation, Chibinang Village	West Garo Hills	Local villagers including Project Affected Persons were interacted during meeting





Details of Informal meeting held with Villagers/PAP along route of 132 KV line from 132 KV PHULBARI (New) S/s to 132 KV AMPATI (existing) sub-station associated with NERPSIP, MEGHALAYA

Transmission Line	Date of meeting	No. of villagers present during meeting	Location of Public Consultation	District	Remarks
132 KV line from 132/33 KV PHULBARI (New) S/s to 132/33 KV AMPATI (existing) sub-station	09/02/2017	7	Garodoba Village, Betasing Tehsil	West Garo Hills	Local villagers including project affected families/Village headman etc. were interacted during the time of detail survey of the route. Compensation Notice also served to concerned landowner before the start of civil work. Various concerns like project details, compensation procedures, local labour issues etc. were discussed during the time of interaction.



CONSULTATION WITH LANDOWNER (GARODOBA VILLAGE) ALONG 132 KV PHULBARI-AMPATI T/L



CONSULTATION WITH PAF (GARODOBA VILLAGE)



SERVING COMPENSATION NOTICE TO AP (GARODOBA VILLAGE) IN 132 KV PHULBARI-AMPATI T/L



OBTAINING CONSENT FROM AP (GARODOBA VILLAGE) 132 KV PHULBARI-AMPATI T/L

Details of Informal meeting held with Villagers/PAP along the route of 33 KV line from TIKRIKILLA to RAKSAMBGRE to be constructed under NERPSIP, MEGHALAYA

Distribution Line	Date of meeting	No. of villagers interacted during meeting	Location of Public Consultation	District	Remarks
33 KV line from TIKRIKILLA to RAKSAMBGRE	12/01/2017	7	Chamaguri Village, Selsella Block, West Garo Hills	West Garo Hills	Local villagers including project affected families/Village headman etc. were interacted during the time of detail survey of the route. Various concerns like route alignment, compensation procedures, etc. were discussed during the time of interaction.



CONSULTATION WITH VILLAGE COUNCIL PRESIDENT (CHAMAGURI VILLAGE)



CONSULTATION WITH VILLAGE ELDERS (CHAMAGURI VILLAGE)



CONSULTATION WITH PAF (CHAMAGURI VILLAGE) DURING 33 KV ROUTE SURVEY

Details of Informal interaction with land owners/villagers held along the route of 33 KV line from 132 KV Phulbari S/s to 33 kv existing Phulbari S/s to be constructed under NERPSIP, MEGHALAYA

Distribution Line	Date of meeting	No. of villagers interacted during meeting	Location of Public Consultation	District	Remarks
33 KV line from 132 KV Phulbari S/s			Chaprabudi	West	Local villagers including project affected families/Village headman etc.
to 33 kv existing Phulbari S/s	01/12/2016	10	Village, Selsella Block, West Garo Hills	Garo Hills	were interacted during the time of detail survey of the route. Various concerns like route alignment, compensation procedures, etc. were discussed during the time of interaction.



INTERACTION WITH LANDOWNER AND HIS FAMILY (CHAPRABUDI VILLAGE)



INTERACTION WITH LANDOWNER (CHAPRABUDI VILLAGE) AT THE POLE LOCATION



INTERACTION WITH LOCAL VILLAGERS (CHAPRABUDI VILLAGE) ALONG THE 33 KV ROUTE