

**COMPENSATION PLAN FOR TEMPORARY
DAMAGES (CPTD)
FOR
T & D NETWORK IN KAMRUP RURAL,
UDALGURI AND SONITPUR DISTRICTS
IN ASSAM**



Prepared By

Environment and Social Management

POWER GRID CORPORATION OF INDIA LTD.

For

ASSAM ELECTRICITY GRID CORPORATION LIMITED (AEGCL)

&

ASSAM POWER DISTRIBUTION COMPANY LIMITED (APDCL)

TABLE OF CONTENTS

SECTION	PARTICULARS	PAGE
	EXECUTIVE SUMMARY	I-VI
I	INTRODUCTION AND PROJECT DESCRIPTION	1-8
1.1	Project Background	1
1.2	Project Components	3
1.3	Objective of CPTD	5
1.4	Scope and Limitation of CPTD	5
1.5	Measures to Minimize Impact	6
1.6	Route Selection and Study of Alternatives	7
II	SOCIO-ECONOMIC INFORMATION AND PROFILE	9-15
2.1	General	9
2.2	Socio-Economic Profile	9
III	LEGAL & REGULATORY FRAMEWORK	16-17
3.1	Overview	16
3.2	Statutory Requirements	16
3.3	AEGCL & APDCL's ESPPF	16
IV	PROJECT IMPACTS	18-33
4.1	General	18
4.2	Impact Due to construction of Substation & Bay Extension	21
4.3	Temporary Impacts Caused due to Transmission Lines (Right of Way)	24
4.4	Details of Affected Persons	31
4.5	Other Damages	32
4.6	Impact on Indigenous Peoples	32
4.7	Summary of Impacts	33
V	ENTITLEMENTS, ASSISTANCE AND BENEFITS	34-39
5.1	Entitlements	34
5.2	Entitlement Matrix	34
5.3	Procedure of Tree/crop compensation	35
5.4	Land Compensation for Tower Footing & RoW Corridor	37
5.5	Compensation for Structure	37
5.6	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	42
6.3	Information Disclosure	42
VII	INSTITUTIONAL ARRANGEMENTS	43-47
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	50-53
9.1	Compensation for Land for Tower Base and RoW Corridor	50
9.2	Compensation for Crops & Trees	51
9.3	Summary of Budget	52
X	IMPLEMENTATION SCHEDULE	54
XI	MONITORING AND REPORTING	55-56
11.1	Status of Compensation (Tree/ Crop / Land / Structures)	56
11.2	Status of Grievances	56

LIST OF TABLES

TABLE	PARTICULAR	PAGE
Table 2.1	Land Use Pattern in Assam	9
Table 2.2	Details on Total population	13
Table 2.3	Details on Male & Female Population	13
Table 2.4	Details of Percentage SC/ST	14
Table 2.5	Literate & Illiterate Population	14
Table 2.6	Details on Workers	15
Table 2.7	Details on Households	15
Table 4.1	Details of Substation	22
Table 4.2	Type and Use of Land within Corridor of ROW (in Kms/Hectares)	24
Table 4.3	Estimation on Loss of Land for Crop Damage due to overhead Lines	26
Table 4.4	Estimation of Actual Loss of Land for Crop Tower Base & Pole	28
Table 4.5	Calculation details for Cost of Land for RoW corridor	29
Table 4.6	Loss of Trees	29
Table 4.7	Loss of Other Assets	31
Table 4.8	Number of Affected Persons	32
Table 4.9	Summary Impacts	33
Table 5.1	Entitlement Matrix	34
Table 5.2	Compensation Disbursement Module	38
Table 6.1	Details of Consultations	41
Table 6.2	Plan for Future Consultations	42
Table 7.1	Agencies Responsible for CPTD Implementation	46
Table 9.1	Cost of Land Compensation for Tower Base & RoW Corridor	50
Table 9.2	Compensation for Crops & Trees	51
Table 9.3	Summary of Budget	53
Table 10.1	Tentative Implementation Schedule	54

LIST OF FIGURES

FIGURE	PARTICULAR	PAGE
Figure-1.1	Power Map along with Proposed Project	2
Figure-4.1	Typical Plan of Transmission Line Tower Footing	19
Figure-4.2	33 kV line Depicting Base Area Impact	20
Figure-5.1	Tree/Crop Compensation Process	39
Figure-8.1	Flow Chart of Grievance Redress Mechanism	49
Figure-11.1	AEGCL/APDCL Support Structure Safeguard Monitoring	55

LIST OF ANNEXURES

ANNEXURE	PARTICULAR
Annexure-1	Comparative details of Three Alternatives
Annexure-2	Govt. of Assam notification on RoW Compensation
Annexure-3	Tower/Pole schedule of proposed lines
Annexure-4	Details of Public Consultation

LIST OF ABBREVIATIONS

AC	:	Autonomous Council
AEGCL	:	Assam Electricity Grid Company Limited
AP	:	Affected Person
APDCL	:	Assam Power Distribution Company Limited
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	:	AEGCL & APDCL's Environmental and Social Policy & Procedures Framework
Gol	:	Government of India
GRC	:	Grievance Redress Committee
GRM	:	Grievance Redress Mechanism
Ha	:	Hectare
HPC	:	High Powered Committee
IA	:	Implementing Agency
INRs	:	Indian National Rupees
IP	:	Indigenous People
IR	:	Involuntary Resettlement
JCC	:	Joint Coordination Committee
kV	:	Kilo volt
Km	:	Kilometer
LA	:	Land Acquisition
MCM	:	Million Cubic Meter
MoP	:	Ministry of Power
M&E	:	Monitoring and Evaluation
NoC	:	No Objection Certificate
NER	:	North Eastern Region
NERPSIP	:	North Eastern Region Power System Improvement Project
O&M	:	Operation and Maintenance
OP	:	Operational Policy
PAP	:	Project Affected Person
POWERGRID	:	Power Grid Corporation of India Limited
PPIU	:	PMC Project Implementation Unit
RFCTLARRA	:	The Right to Fair Compensation and Transparency in Land, Acquisition, Rehabilitation and Resettlement Act, 2013
RoW	:	Right of Way

RP	:	Resettlement Plan
R&R	:	Resettlement and Rehabilitation
S/c	:	Single Circuit
SC	:	Scheduled Caste
Sq.m.	:	Square Meters
SMF	:	Social Management Framework
SPCU	:	State Project Coordination Unit
ST	:	Scheduled Tribe
T & D	:	Transmission & Distribution
TL	:	Transmission Line
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 6th 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 Kamrup Rural, Udalguri and Sonitpur districts of Assam 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 present CPTD is based on the Environmental and Social Policy & Procedures Framework (ESPPF) of Assam Electricity Grid Corporation Limited (AEGCL)/ Assam Power Distribution Company Limited (APDCL).

ii. The project components include construction of 28.65 km of 220 kV line, 44.804 km of 132 kV line and 129.299 km of 33 kV line along with associated new/extension of transmission & distribution substations in Kamrup Rural, Udalguri and Sonitpur district of Assam. 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. AEGCL & APDCL/ 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 AEGCL & APDCL/POWERGRID.

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

A. Transmission System Components:

1. Rangia (Existing)- Amingaon (new) substation 220 kV line- **28.65 km**

¹For the purpose of CPTD, AEGCL/APDCL and POWERGRID may be referred as SPCU and PPIU respectively. For further details, please refer chapter-vii on institutional arrangements.

2. Amingaon (New)- Hazo (new) substation 132 kV line- **8.605 km**
3. Sonabil (Existing) – Tezpur (new) substation 132 kV line- **16.081 km**
4. LILO of Rangia – Rowta 132 kV D/C line at Tangla- **10.658 km**
5. LILO of Kamalpur- Sishugram & LILO of Kamalpur-Kamakhyia 132 kV S/C line at Amingaon- **9.460 km**
6. Establishment of 220/132 kV new substation at **Amingaon (GIS)**, 132/33 kV new substation at **Hazo, Tezpur and Tangla** and Extension of 220/132 kV existing substation at **Rangia** and 132/33 kV existing substation at **Sonabil**.

B. Distribution System Components:

1. Hazo (New) to Mukalmuwa (existing) substation 33kV line – **29.173 km**.
2. Tangla (New) to Khairabari (existing) substation 33kV line – **15.982 km**.
3. Hazo (New) to Sesa (New) substation 33kV line – **6.55 km**.
4. Hazo (New) to Ramdiya (New) substation 33kV line – **8.678 km**.
5. Hazo (New) to Domdoma-hazo (new) substation 33 kV line – **11.172 km**.
6. Tangla (New) to Harisingha (New) substation 33 kV line – **11.812 km**.
7. Tangla (New) to Paneri (Existing) substation 33 kV line- **11.108 km**.
8. Tangla (New) to Kalaigaon (Existing) substation 33 kV line – **14.170 km**
9. Tangla (New) to Tangla (Existing) substation 33 kV line – **2.1 km**
10. Tezpur (New) to LGM hospital (New) substation 33 kV line – **8.0 km**
11. Tezpur (New) to Parowa (existing) substation 33 kV line – **4.891 km**
12. Tezpur (New) to Dolabari (existing) substation 33 kV line – **5.663 km**
13. Establishment of 33/11 kV new substation at **Sesa, Ramdiya, Domdoma-Hazo, Harisingha and LGM Hospital** and Strengthening of 33/11 kV existing substation at **Mukalmuwa, Khairabari, Paneri, Kalaigaon, Tangla, Parowa, Dolabari**.

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. Most of the impacts are temporary in nature in terms of loss of standing crops/trees and other damages for which compensation will be paid to the affected persons/ community for all

²As 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.

damages including cost of land for tower base and RoW corridor to its owner without acquiring it as per the laws and provisions laid in ESPPF accompanied by MoP guidelines, as Assam has already adopted MoP guidelines for land compensation vide notification dated 10.03.2017.

v. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though Right of Way (RoW) for 220 kV, 132 kV & 33 kV line are 35 meter, 27 meter & 15 meter respectively but average affected width/corridor would be limited to maximum 27 meter for 220 kV, 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. 636.111 acres. Total number of trees likely to be affected during construction of lines is approx 667 plus few trees for only branch trimming. Private trees will be compensated as per the entitlement matrix.

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 AEGCL/APDCL & 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 is to be continued during project implementation and even during Operation & Maintenance (O&M) stage. The draft/summary CPTD will be disclosed to the affected households and other stakeholders by placing it on website. AEGCL/APDCL & POWERGRID's site/field 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, one at the project/scheme level and another at corporate/head quarter level. The GRCs include members from AEGCL/APDCL, POWERGRID, Local Administration, Village 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 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 endeavors 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 inbuilt in the tree/crop 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 also provides forum for raising the grievance towards any irregularity/complaint.

vii. The CPTD is based on AEGCL & APDCL's ESPPF. 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) Govt. of Assam notification on RoW Compensation dated 10th March 2017. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Governments of India, AEGCL & APDCL'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. There is 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. AEGCL & APDCL/IA will provide compensation to all APs including non-title holders as already mentioned in the Entitlement Matrix.

E-1: Entitlement Matrix

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

Sl.	Type of Issue/ Impact	Beneficiary	Entitlement Options
		leaseholder	crops. All timber* will be allowed to retain by the owner.
4.	Other damages (if applicable)	All APs	Actual cost as assessed by the concerned authority.
5.	Loss of structure		
(i)	House	Titleholders	Cash compensation at replacement cost (without deduction for salvaged material and depreciation value) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below.
(ii)	Shop/ Institutions/ Cattle shed	Individual/ Titleholders	Cash compensation plus Rs. 10000/- for construction of working shed/shop plus transition benefits as per category-5 below
(iii)	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
(iv)	Tribal/ Vulnerable APs	Vulnerable APs ³	One time additional lump sum assistance not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC.

(#) *Since Govt. of Assam has already adopted MoP guidelines of Oct'15, compensation toward damages in respect to RoW shall be paid as Gov. of Assam notification dated 10.03.17.*

* *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. Due to inherent flexibility in routing of line, no major damages to structures or physical displacement is envisaged in transmission/distribution line. Hence, there are no adverse impacts such as permanent loss of assets, livelihood loss or physical resettlement/relocation due to project intervention. However, in case it is completely unavoidable, 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 AEGCL & APDCL/ POWERGRID and APs is to be done and verified by revenue official for actual damages. Hence, compensation is paid parallelly with the construction activity of transmission/distribution line. The cost estimate for the project includes eligible compensation for loss of crops, trees, and support cost for implementation of CPTD, monitoring, other administrative 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 1760.548 Lakhs equivalent to USD 2.46 million.

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

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

xi. Public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Monitoring will be the responsibility of both AEGCL/APDCL & IA. AEGCL & APDCL/POWERGRID will submit semi-annual monitoring reports on their implementation performance and submit the reports to The World Bank. If required,

I. INTRODUCTION AND PROJECT DESCRIPTION

1.1. Project Background

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

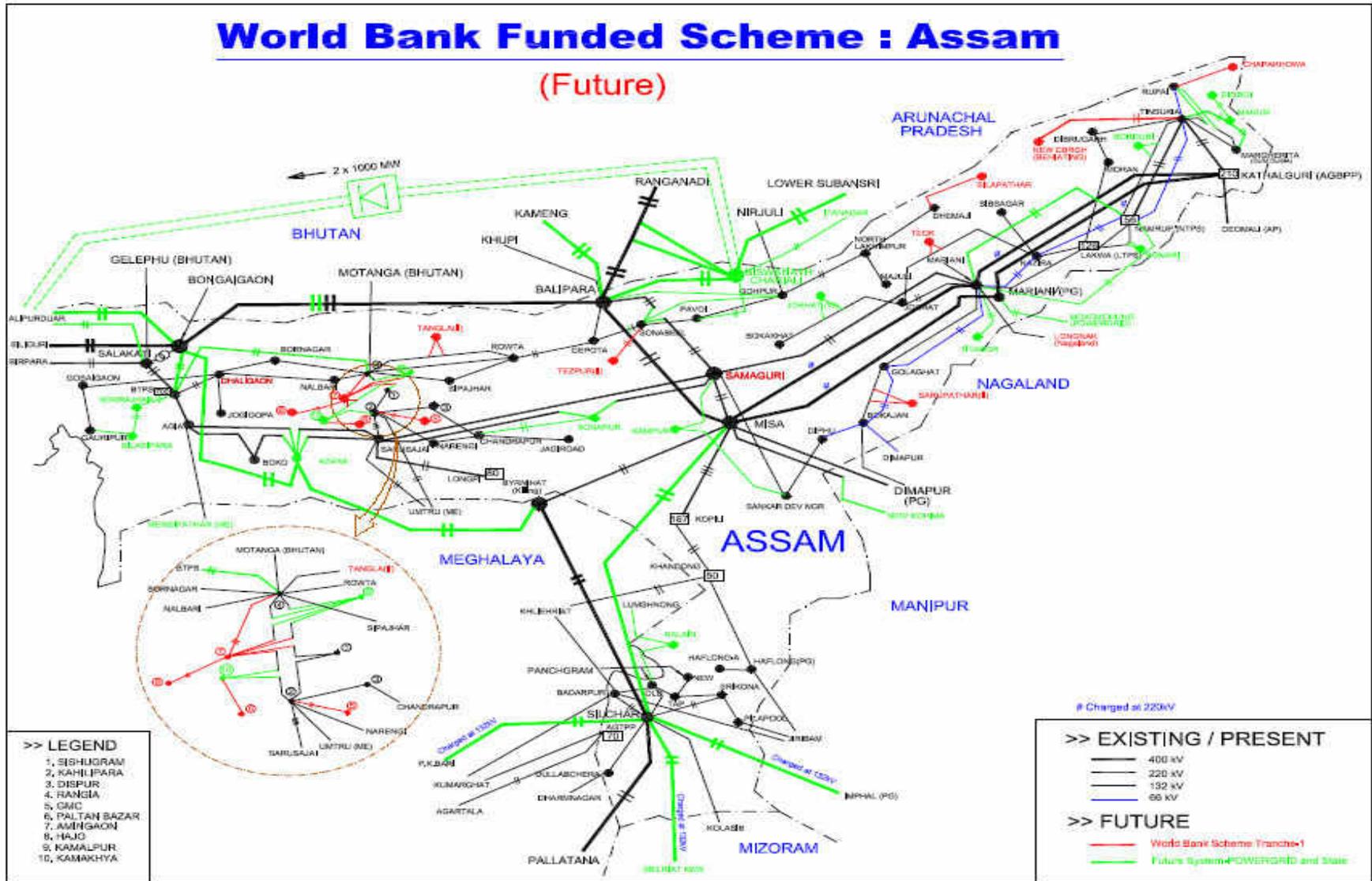
2. GoI requested for World Bank's support in implementing a set of priority investments in six NER states. In 2016, the World Bank (WB) has approved a loan (IBRD 470 USD Million) to the Government of India (GoI) for North Eastern Region Power System Improvement Project (NERPSIP) which aims to create a robust intrastate transmission and distribution network in all the six (6) North Eastern States including Assam. The project being funded on 50:50 (World Bank loan: GoI) basis except the component of capacity building for Rs. 89.00 crore, which GoI will bear entirely. The scheme is to be taken up under a new Central Sector Plan Scheme of MoP.

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

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

5. The scope of work under NERPSIP in state of Assam include construction of 376 km of 220/132 kV transmission lines & associated 11 nos. new substations and 479 ckm of 33 kV distribution lines & 16 nos. substation along with augmentation & strengthening of transmission and sub-transmission spread across the State. The power map of Assam indicating the existing intrastate transmission network along with proposed project under Tranche-1 of NERPSIP is presented in **Figure 1.1**.

Figure 1.1: Power Map of Assam along with proposed project



1.2. Project Components

6. The project components under the scope of present CPTD include following transmission/ distribution lines and associated Transmission & Distribution substations proposed in Kamrup Rural, Udalguri and Sonitpur district of Assam State;

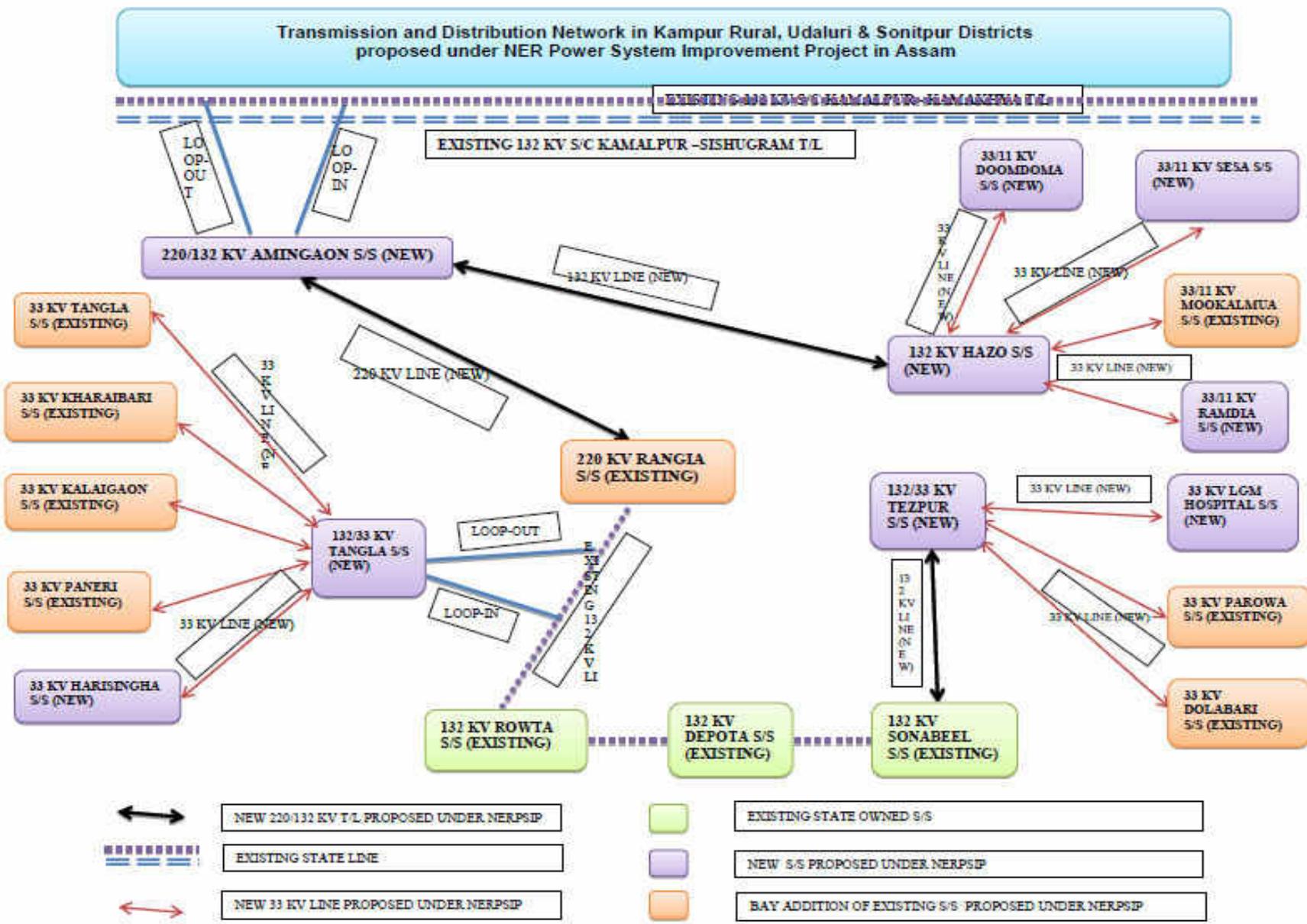
A. Transmission System:

1. Rangia (Existing)- Amingaon (new) substation 220 kV line- **28.65 km**
2. Amingaon (New)- Hazo (new) substation 132 kV line- **8.605 km**
3. Sonabil (Existing) – Tezpur (new) substation 132 kV line- **16.081 km**
4. LILO of Rangia – Rowta 132 kV D/C line at Tangla- **10.658 km**
5. LILO of Kamalpur- Sishugram & Kamalpur-Kamakhya 132 kV S/C line at Amingaon- **9.460 km**
6. Establishment of 220/132 kV new substation at **Amingaon (GIS)**, 132/33 kV new substation at **Hazo, Tezpur and Tangla** and Extension of 220/132 kV existing substation at **Rangia** and 132/33 kV existing substation at **Sonabil**.

B. Distribution System:

1. Hazo (New) to Mukalmuwa (existing) substation 33kV line – **29.173 km**.
2. Tangla (New) to Khairabari (existing) substation 33kV line – **15.982 km**.
3. Hazo (New) to Sesa (New) substation 33kV line – **6.55 km**.
4. Hazo (New) to Ramdiya (New) substation 33kV line – **8.687 km**.
5. Hazo (New) to Domdoma-hazo (new) substation 33 kV line – **11.172 km**.
6. Tangla (New) to Harisingha (New) substation 33 kV line – **11.812 km**.
7. Tangla (New) to Paneri (Existing) substation 33 kV line- **11.108 km**.
8. Tangla (New) to Kalaigaon (Existing) substation 33 kV line – **14.170 km**
9. Tangla (New) to Tangla (Existing) substation 33 kV line – **2.1 km**
10. Tezpur (New) to LGM hospital (New) substation 33 kV line – **8.0 km**
11. Tezpur (New) to Parowa (existing) substation 33 kV line – **4.891 km**
12. Tezpur (New) to Dolabari (existing) substation 33 kV line – **5.663 km**
13. Establishment of 33/11 kV new substation at **Sesa, Ramdiya, Domdoma-Hazo, Harisingha and LGM Hospital** and Strengthening of 33/11 kV existing substation at **Mukalmuwa, Khairabari, Paneri, Kalaigaon, Tangla, Parowa, Dolabari**.

7. The schematic diagram of proposed transmission and distribution network in Kamrup Rural, Udalguri and Sonitpur District is shown below:



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.

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. AEGCL/ APDCL/ POWERGRID⁴ provide compensation for actual damages after assessment by revenue authority. Check survey is done progressively during the construction of the transmission/distribution line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission/distribution lines in three stages i.e. after completion of foundation, tower erection and stringing of conductor. The payment of compensation shall be paid in three instances, if there are different damages during above all the three activities. Assessment of damages at each stage and payment of compensation is a simultaneous and continuous activity. Hence, CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by AEGCL & APDCL/POWERGRID.

⁴For the purpose of CPTD, AEGCL/APDCL 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 Power(Electricity) Department, Govt. of Assam vide notification dated 16th March, 2016, AEGCL/APDCL has the mandate to place and maintain transmission lines under/ over/ along or across and posts in or upon, any immovable 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, AEGCL & APDCL/POWERGRID undertakes 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 Assam and Kamrup Rural, Udalguri and Sonitpur district in particular through which the various lines will traverse. Following section briefly discuss socio-economic profile.

2.2. Socio-Economic Profile

2.2.1. Land Use Pattern Assam

21. Assam has a geographic area of 7.84 million ha, which constitutes 2.39% of the country's total area. It is situated between latitude 24°07' to 28°00' N and longitude 89° 42' to 96° 02'E. Topographically, the State can be divided into three parts, viz. the Brahmaputra valley, the Surma valley and the Assam range. The first two parts are plain areas, while the Assam range is a mountainous region. The general land use pattern of the State is given in **Table 2.1**.

Table-2.1: Land Use Pattern of Assam

Land Use	Area in '000 ha	Percentage
Total geographical area	7,844	
Reporting area for land utilization	7,850	100.00
Forests	1,853	23.60
Not available for cultivation	2,620	33.37
Permanent pastures and other grazing lands	160	2.04
Land under misc. tree crops & groves	196	2.49
Culturable wasteland	78	0.99
Fallow lands other than current fallows	52	0.66
Current Fallows	81	1.03
Net area sown	2,811	35.80

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

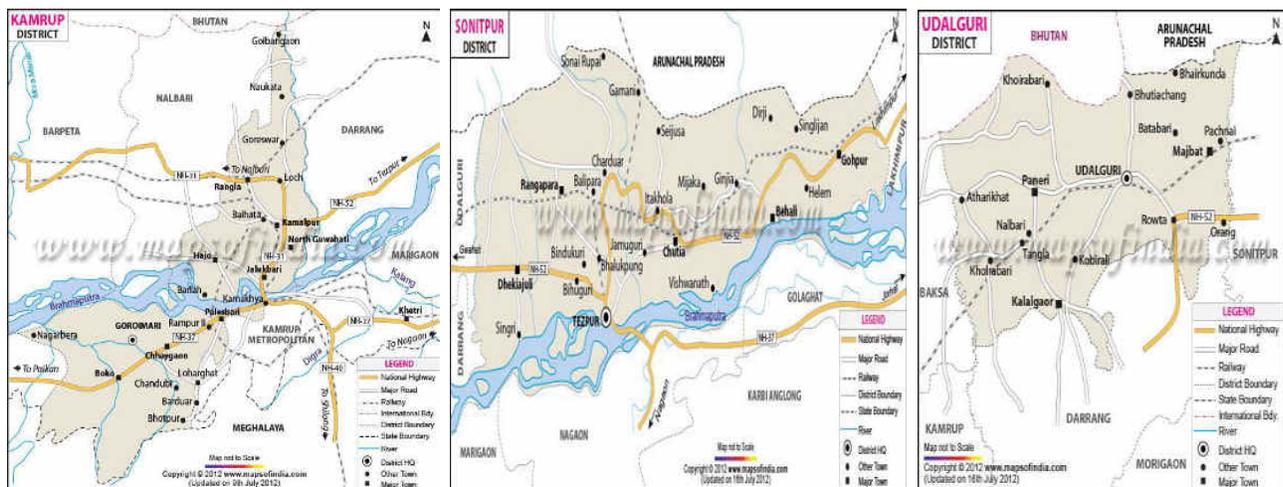
2.2.2 Kamrup Rural, Sonitpur and Udalguri District

22. The Kamrup Rural district occupies an area of 3105 sq. km. The district extends from 25°46' N to 26°49' N and 90°48' E to 91°50'E. It is located in the lower middle region of Assam and

is bounded by Udalguri and Baksa district to the north, the state of Meghalaya to the south, by Darrang and Kamrup Metropolitan District to the east and by Goalpara and Nalbari District to the west.

23. Sonitpur district occupies an area of 5324 sq. km. The district extends from 26°30' N to 27° 1' N and 92°16'E to 93°43'E. It is located on the northern bank of the river Brahmaputra and bounded by the state of Arunachal Pradesh on the North, Morigaon, Nagoan, Jorhat and Golaghat on the South, Lakhimpur district on the East and Darrang district on the West.

24. Udalguri District occupies an area of 1852.16 sq.km. The district extends from 26°46' N to 27°77' N and 92°08' E to 95°15' E. It is located in the central part of the Assam state, bounded by Bhutan and state of Arunachal Pradesh on the north, Darrang district on the south, Sonitpur district to the east and Baksa district to the west.



2.2.2.1 Climate

25. Assam has four well defined seasons in a year viz. winter, monsoon, summer and spring. Climate of Assam is sub-tropical. October to April offer a mild and moderate climate. Assam is never extremely cold or hot. Rainfall, one of the highest in the world (between 178 and 305 cm), is concentrated in 4 months, June to September. The State experiences floods and droughts. Annual rainfall varying from 1,500 mm to 3,750 mm. The average temperature in January ranges from 10°C to 23° C and in July it ranges from 26° C to 32° C.

26. The climate of the present sub-project areas districts is more or less similar with the climate of the State. The climate of Kamrup Rural is sub-tropical with semi-dry summer and cold in winter. Annual rainfall ranges between 1500 mm to 2600 mm. Average annual temperature is 22.75°C. Sonitpur district experiences Tropical Rainforest climate monsoon climate with mild winter, warm

and humid summer. The annual average temperature and rainfall of the district is 27°C and 3000 mm respectively. Udalguri district has a sub-tropical humid climate with semi-dry summer and cold winter. The annual average temperature and rainfall of the district is 25°C and 2000 mm respectively.

2.2.2.2 Water Resources:

27. Brahmaputra Basin comprises of sub-basin of Subansiri, JiaBharali, Badeng-Pubnoi, Dhansiri, Anas, Champamati, Dholai, Buridihing, Disang, Kopili, Kalang and Meghna Basin comprises of sub - Basin of Barak River. Assam is dominated by the Brahmaputra river (length: 2900 km). Its drainage area is roughly 935,500 sq. km.

28. The major rivers flowing through sub-projects area districts are Brahmaputra River, Dhansiri, Pachnoi, Noa, Jia Bhorali, Gabharu, Puthimari, Borno, Kushi and Pagladiya. However, none of the lines in the instant scheme has any river crossing in its route.

2.2.2.3 Soil

29. Mainly three types of soil found in Assam State viz. Alluvial, Red Loam, and Lateritic Soil. Alluvial Soil covers entire Darrang, Kamrup, Lakhimpur, Goalpara, Sibsagar and part of Garo Hills. Red Loam Soil is found in Garo Hills, Mizo Hills, Khasi-Jaintia Hills and part of Cachar & Sibsagar district. Lateritic Soil found in part of Shibsagar, Jaintia Hills, Khasi Hills, Cachar, Nowgaon area. The most typical characteristics of Assam soil is acidity, where pH of the soils generally ranges between 4.2 to 5.8. The soil found in the subproject area is mostly alluvial type.

2.2.2.4 Ecological Resources

30. The protected area found in the subproject districts are Manas National Park, Orang National Park, Nameri National Park, Bura Chapori Wildlife Sanctuary, Sonai Rupai Wildlife Sanctuary, Bornadi Wildlife Sanctuary and Dipor Bil Wildlife Sanctuary. However, the proposed transmission and distribution network doesn't pass through any protected area like national parks, sanctuaries, elephant reserves/corridors and biosphere reserves etc. In the instant scheme all such areas are completely avoided through careful route selection. It is also observed that there is no ecologically sensitive area within a radius of 10 Km from the transmission and distribution lines proposed under this scheme.

2.2.2.5 Crops

31. Agriculture plays the chief role of revenue earning in Assam economy. The State of Assam experiences plenty of rainfall and possesses a fertile land which is extremely advantageous for cropping. This has led to the flourishing growth in food crops and staples in Assam agriculture. Rice is the main food crop in Assam agriculture as it is the main diet in the state too. Those who are engaged in the agricultural department of Assam fully concentrates on cultivating rice as it falls under their main priority. Other food crops cultivated in Assam agriculture include jute, sugarcane, fruits, tea, pulses, coconut, potatoes, cotton, and arecanuts. More than 50 percent of the total population of the state are involved in agricultural activities of Assam.

2.2.2.6 Human and Economic Development

32. Assam is a state rich in natural resources like natural oil, natural gas, coal, rubber, tea and some minerals like granite, limestone and kaolin. The present state is much smaller than what it was forty years ago. It is still the largest economy in the North East. Although it is more industrially developed than the other North Eastern states, it is primarily an agrarian economy with 63% of its population engaged in agriculture and allied activities.

33. In Tea is a major industry in Assam which contributes 15 % of world's tea production and 55% of the country's tea output. A large section of the labor force of the State is employed in the tea estates of Assam. The other agricultural produce involves rice, sugarcane, pulses, potatoes and jute. The secondary sector of the economy comprises of the industries in Assam with large and medium scale productions. Agro based industries prevail in the State coupled with the tea industry that has a major contribution to the economy of the State of Assam. Assam is first State in the country where oil was struck in 1889 at Digboi. Assam has four oil refineries located at Guwahati, Digboi, Numaligarh and Bongaigaon with a total capacity of 7 MMTPA (Million Metric Tonnes per annum). The State also earns revenue from the mining industry that produces the four important industrial minerals of coal, limestone, sillimanite and oil. Important cottage industries are handloom, sericulture, manufacture of cane and bamboo articles, carpentry, smithy and manufacture of brass utensils. Assam is also the largest producer in the world of the golden colored muga silk.

34. There are no such major large scale industries in the sub-project districts. However, there are many medium and small scale industries in the districts. The Major exportable items from the districts in the instant scheme are tea, silk and handloom.

2.2.3 Demography Features

2.2.3.1. Total Population

35. Total population in Assam stands at 3,12,05,576 of which 2,68,07,034 (85.90%) population belong to rural area and 43,98,542 (14.10%) population belong to urban area. Kamrup Rural district has a total of 15,17,542 populations which is 4.86% of state population. The rural and urban population constitute 90.61% and 9.39% of total populations of this district. Udalguri district has a total of 8,31,668 populations which is 2.66% of state population, where the rural and urban population constitute 95.5% and 4.5% of total populations of the district respectively. Sonitpur district has a total of 19,24,110 populations which is 6.16% of state population, where the rural and urban population constitute 91.2% and 8.8% of total populations of the district respectively. Details are given in **Table 2.2**.

Table 2.2: Details on Total Population

Name/Particulars	Total Population	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Assam	3,12,05,576	2,68,07,034	43,98,542	85.90	14.10
Kamrup Rural	15,17,542	13,75,148	1,42,394	90.61	9.39
Udalguri	8,31,668	7,94,094	37,574	95.5	4.5
Sonitpur	19,24,110	17,54,835	1,69,275	91.2	8.8

Source: Census of India, 2011

2.2.3.2 Male and Female Population

36. Out of total population 3,12,05,576 of the State, male population constitutes 15,939,443 (51.08%) and female population is 15,266,133 (48.92%). Total population in Kamrup Rural stands at 15, 17,542 of which male population stands at 7,78,461 (51.29%) and female population stands at 7,39,081 (48.71%). The sex ratio of the Kamrup rural district stands at 946 females per thousand male which is slightly lower than state average of 958. Total population in Udalguri stands at 8,31,668 of which male population stands at 4,21,617 (50.7%) and female population stands at 4,10,051 (49.3%). The sex ratio of this district stands at 966 females per thousand male which is higher than state average. Total population in Sonitpur stands at 19,24,110 of which male population stands at 9,83,904 (51.13%) and female population stands at 9,40,206 (48.87%). The sex ratio of this district stands at 946 females per thousand male which is lower than state average. Details are given in **Table 2.3**.

Table 2.3: Details on Male/ Female Population

Name /Particulars	Total Population	Total Male	Total Female	Percentage (Male)	Percentage (Female)	Sex Ratio
Assam	3,12,05,576	15,939,443	15,266,133	51.08	48.92	958
Kamrup	15,17,542	7,78,461	7,39,081	51.29	48.71	946

Rural						
Udalguri	8,31,668	4,21,617	4,10,051	50.7	49.3	966
Sonitpur	19,24,110	9,83,904	9,40,206	51.13	48.87	946

Source: Census of India, 2011

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

37. As per census 2011, the Scheduled Caste (SC) & Scheduled Tribe (ST) population of the State stands at 22,31,321(7.15%) and 38,84,371 (12.4%) respectively. Kamrup rural district has a total SC population of 1,07,827 (7.11%) & ST population of 1,82,038 (12.2%). Total SC and ST population in Udalguri district are 37,844 (4.55%) & 2,67,372 (32.15%) respectively. Total SC and ST population in Sonitpur district are 1,09,130 (5.67%) & 2,32,207 (12.07%) respectively. Details are given in **Table 2.4**.

Table 2.4: Details on Percentage SC/ST

Name/ Particulars	Total Population	Total SC Population	Percentage of SC Population	Total ST Population	Percentage of ST Population
Assam	3,12,05,576	22,31,321	7.15	38,84,371	12.4
Kamrup Rural	15,17,542	1,07,827	7.11	1,82,038	12
Udalguri	8,31,668	37,844	4.55	2,67,372	32.15
Sonitpur	19,24,110	1,09,130	5.67	2,32,207	12.07

Source: Census of India, 2011

2.2.3.4 Literacy

38. The literacy rate of Kamrup Rural district stands at 75.55% which is much higher than State's average of 61.46%. The female literacy rate of the district is also higher than State's literacy rate. In Udalguri district too, the literacy rate stands at 65.41% which is significantly higher than that of the State. Udalguri district has the female literacy rate which is also higher than the State's average. In Sonitpur district also, the literacy rate stands at 67.34% which is significantly higher than that of the State. Sonitpur district has the female literacy rate which is also higher than the State's average. Details are given in **Table 2.5**.

Table 2.5 : Literate and Illiterate Population

Name/Particulars	Total Population	Total Literate	Percentage of Literate	Percentage (Male)	Percentage (Female)
Assam	3,12,05,576	19,177,977	61.46	55.11	44.89
Kamrup Rural	15,17,542	9,95,319	75.55	81.30	69.47
Udalguri	8,31,668	4,69,926	65.41	72.58	58.05
Sonitpur	19,24,110	11,08,572	67.34	73.65	60.73

Source: Census of India, 2011

2.3.3.5. Total Workers (Male and Female)

39. Total population into work in Assam stands at 1,19,69,690 of which total Male (work) population stands at 85,41,560 (71.36%) and total female (Work) population stands at 34,28,130 (28.64%). Kamrup rural district has a total work population of 6,28,954 of which total Male (work) population stands at 4,28,492 (55.04%) and total female (Work) population stands at 2,00,462 (27.12%). Udalguri district has a total work population of 3,45,030 of which total Male (work) population stands at 2,30,960 (54.72%) and total female (Work) population stands at 1,14,340 (27.88%). Sonitpur district has a total work population of 770,606 of which total Male (work) population stands at 5,37,195 (54.60%) and total female (Work) population stands at 2,33,411 (24.83%) Details are given in **Table 2.6**.

Table 2.6: Details on Workers

Name/ Particulars	Total Population (Work)	Total Male (Work)	Total Female (Work)	Percentage (Male)	Percentage (Female)
Assam	1,19,69,690	85,41,560	34,28,130	71.36	28.64
Kamrup Rural	15,17,542	4,28,492	2,00,462	55.04	27.12
Udalguri	8,31,668	2,30,960	1,14,340	54.72	27.88
Sonitpur	19,24,110	5,37,195	2,33,411	54.60	24.83

Source: Census of India, 2011

2.3.3.6 Households

40. Total Households in Assam stands at 64,06,471 of which 54,20,877 (84.61%) households belong to rural area and 9, 85,594 (15.39%) households belong to urban area. Kamrup rural district has a total of 3,11,114 households of which 2,80,269 (90%) households belong to rural area and 30,845 (10%) households belong to urban area. Udalguri district has a total of 1,68,717 households of which 1,60,404 (95%) households belong to rural area and 8,313 (5%) households belong to urban area. Sonitpur district has a total of 3,92,919 households of which 3,52,647 (89.75%) households belong to rural area and 40,272 (10.25%) households belong to urban area. Details are given in **Table 2.7**.

Table 2.7: Details on Households

Name/ Particulars	Total Households	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Assam	64,06,471	54,20,877	9,85,594	84.61	15.39
Kamrup Rural	3,11,114	2,80,269	30,845	90	10
Udalguri	1,68,717	1,60,404	8,313	95	5
Sonitpur	3,92,919	3,52,647	40,272	89.75	10.25

Source: Census of India, 2011

III. LEGAL & REGULATORY FRAMEWORK

3.1. Overview

41. 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 RFLARR, 2013”), effective from 1st January 2014. For transmission/distribution line project, land for tower/pole and right of way is not acquired and ownership of land remains with the owner and is allowed to continue cultivation after construction. However, as per existing laws⁵ 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) Govt. of Assam notification on RoW Compensation dated 10th March 2017. The compensation principles adopted for this project shall comply with applicable laws and regulations of the Govt/ State Govt, World Bank’s Safeguard Policies and AEGCL & APDCL’s ESPPF.

3.2. Statutory Requirement

42. 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 AEGCL/APDCL has been vested with the powers of Telegraph Authority vide Power (Electricity) Department, Govt. of Assam notification dated 16th March, 2016 under Section - 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 under section 10 (b), AEGCL/APDCL 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.

3.3. AEGCL/APDCL’s ESPPF

43. To address the environmental and social issues related to its power transmission and distribution projects under NERPSIP, AEGCL/APDCL has adopted an Environmental and Social Policy & Procedures Framework (ESPPF) in 2015 based on the principles of avoidance, minimization, and mitigation. The adopted ESPPF fulfils requirements of all the relevant provisions under law of the land i.e. The Electricity Act, 2003, The Indian Telegraph Act, 1885, MoP guidelines dated 15th October, 2015 for payment of compensation toward damages in regard to RoW and World Bank’s Environment and Social Safeguard Policies.

⁵As 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

44. 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.

45. ESPPF 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.

46. Specifically, to tackle social concerns, following criteria and approaches have been 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 RoW, land acquisition or loss of livelihood.
- (v) Encourage consultation with communities in identifying environmental and social implications of projects.
- (vi) Adopt the principles of Free, Prior and Informed Consent (FPIC) process in the consultation / interactions undertaken.
- (vii) Guarantee entitlements and compensation to affected people as per entitlement matrix.
- (viii) Share information with local communities about environmental and social implications.
- (ix) Always maintain highest standards of health and safety and adequately compensate affected persons in case of any eventuality.

47. Additionally, the issues related to the Right of Way (RoW) for the transmission 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

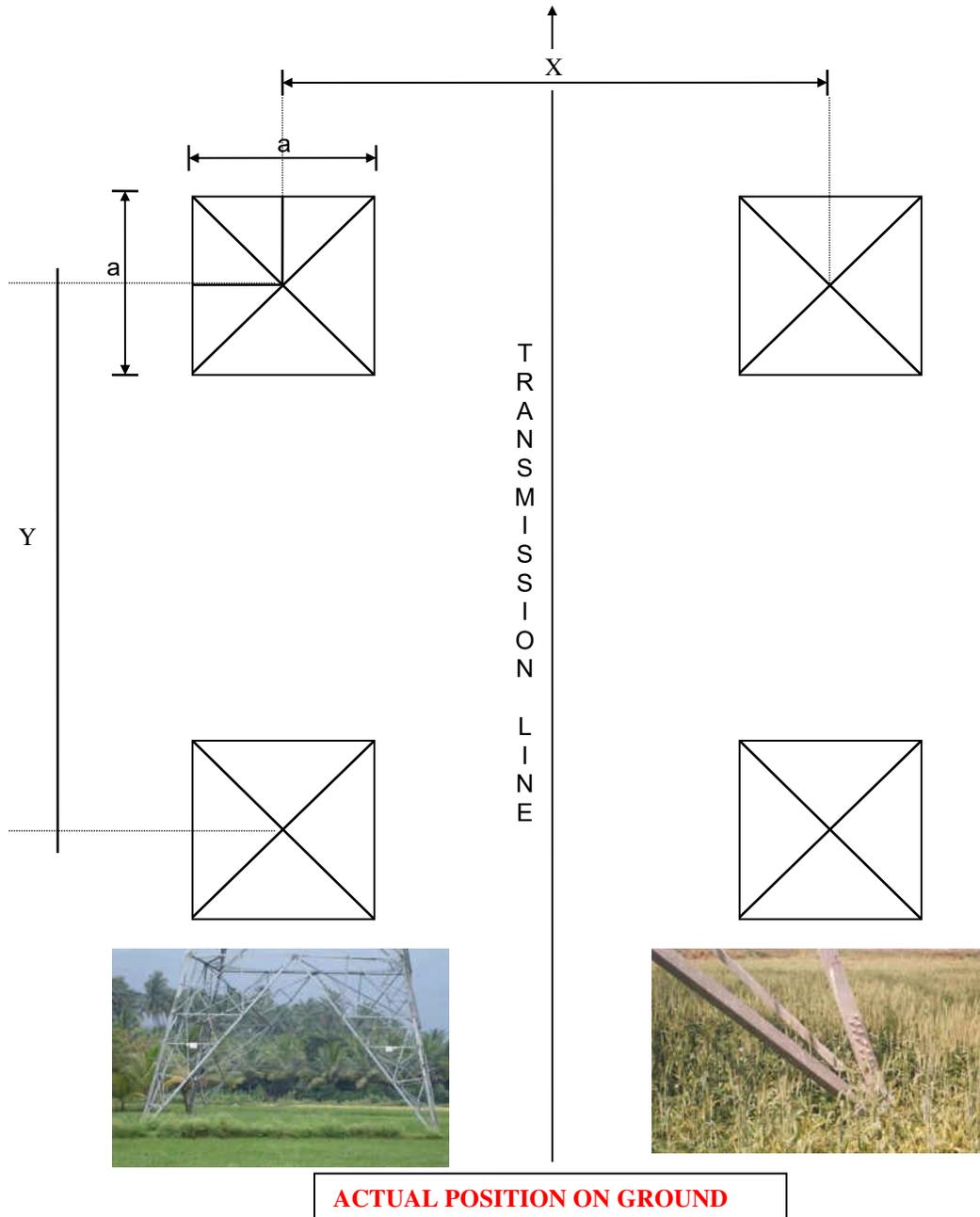
4.1. General

48. The project does not require any private land acquisition for construction of transmission/distribution lines. Due to inherent flexibility in routing of line, no major damages to structures or physical displacement is envisaged. Hence, there are no adverse impacts such as permanent loss of assets, livelihood loss or physical resettlement/relocation due to project intervention. 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, land use including major crossings along 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 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 220 kV D/C and 132 KV D/C transmission line are 35 meter and 27 meter respectively whereas, for 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 220/132 kV D/c transmission tower ranges from 0.16-0.36 sq.m. of land. Thus, the actual impact is restricted to 4 legs of the tower and agriculture can continue as clearly depicted in the **Figure-4.1**. In case of 33 kV distribution line area that becomes unavailable because of the erection of pole is insignificant as approx. 1 sq. ft. land area is occupied for one pole (refer **Figure. 4.2** depicting

Figure-4.1: Typical Plan of Transmission Line Tower Footing

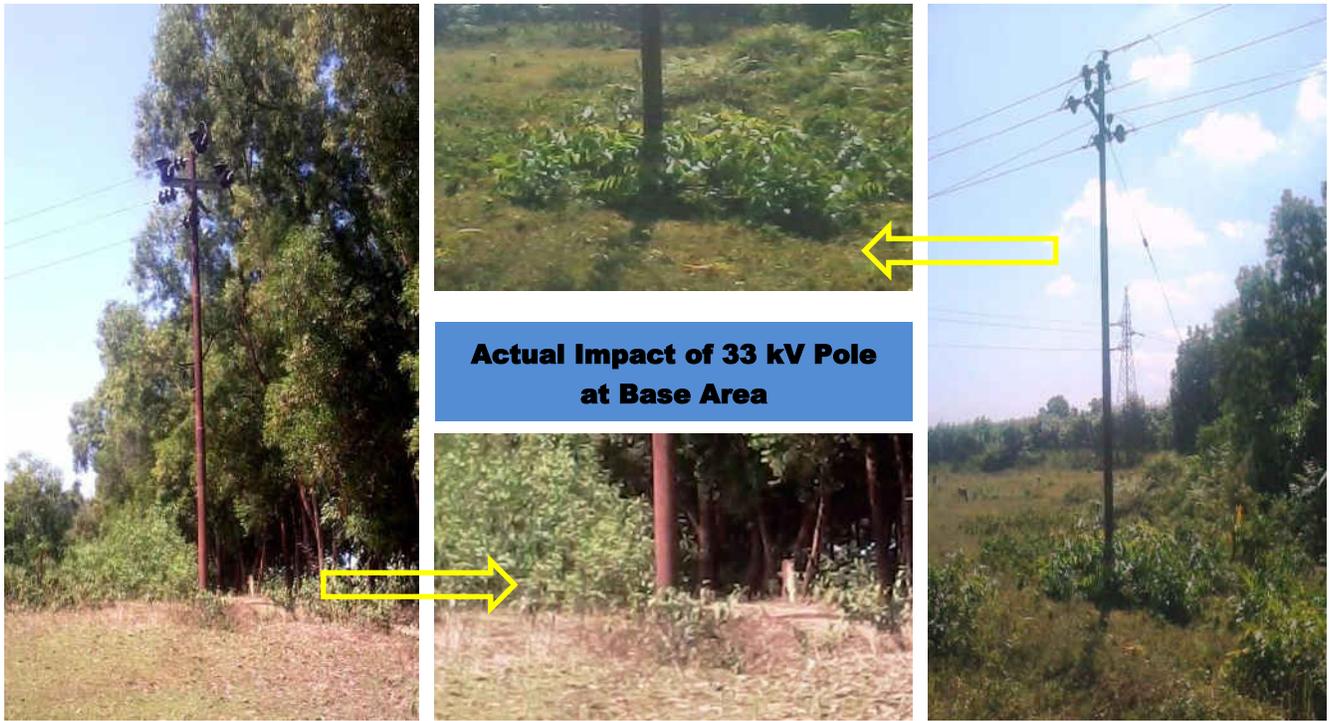


INDICATIVE MEASURES

X & Y = 5-10 METERS

a = 200- 300 mm

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



33 kV line inside city area of Assam



33 kV (H Pole) line inside substation

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. Since, Govt. of Assam vide notification dated 10th March, 2017 has adopted the MoP guidelines, 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 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 assesses 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 head/ Sarpanch and respective acknowledgements are obtained and POWERGRID/AEGCL & APDCL pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.

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

54. The project component consists of establishment of 220/132 kV new substation at Amingaon (GIS), 132/33 kV new substation at Hazo, Tezpur and Tangla, extension of 220/132 kV

Rangia and extension of 132/33 kV Sonabil; 33/11 kV new substation at Sesa, Ramdiya, Domdoma-hazo, Harisingha and LGM hospital and strengthening of 33/11 kV Mukalmuwa substation (existing), 33/11 kV Khairabari (existing), 33/11 kV Paneri (existing), 33/11 kV Kalaigaon (existing), 33/11 kV Tangla (existing), 33/11 kV Parowa (existing) and 33/11 kV Dolabari (existing). Land for new substations are either available with AEGCL/APDCL or purchased on negotiated rates based on “willing buyer-willing seller basis”. The extensions/strengthening works at proposed transmission and distribution substations will be done within the existing substations campus and no fresh land secured for this purpose. Since no involuntary acquisition is involved, R&R will not be an issue in the instant project. The details are provided in **Table 4.1**:

Table 4.1: Details of Substation

Name of substation	Permanent Impact on Land Use	Temporary Impact on loss of crops	Impact on Loss of Trees	Details of Land			
				Land Area (acre)	No. of Land owner	Compensation (Rs. Million)	Land Type/ Securing method
220/132 kV new substation at Amingaon (GIS)	Yes	Nil	Nil	8.0	NA	NA	AEGCL Land
132/33 kV new substation at Hazo	Yes	Nil	Nil	6.25	1	28.479	Private land purchased on negotiated rates based on “willing buyer-willing seller basis”.
132/33 kV new substation at Tezpur	Yes	Nil	Nil	7.27	3	14.080	
132/33 kV new substation at Tangla	Yes	Nil	Nil	8.26	12	42.600	
Extension of 220/132 kV substation at Rangia	No	Nil	Nil	NA	NA	NA	AEGCL Land
Extension of 132/33 kV substation at Sonabil	No	Nil	Nil	NA	NA	NA	
33/11 kV new substation at Sesa	Yes	Nil	Nil	0.66	1	3.785	Private land purchased on negotiated rates based on “willing buyer-willing seller basis”.
33/11 kV new substation at Ramdiya	Yes	Nil	Nil	0.50	2	1.580	

33/11 kV new substation at Domdoma-Hazo	Yes	Nil	Nil	0.50	1	2.399	
33/11 kV new substation at Harsingha	Yes	Nil	Nil	0.74	NA	NA	APDCL Land
33/11 kV new substation at LGM hospital	Yes	Nil	Nil	0.33	1	1.950	Private Land purchased on negotiated rates based on "willing buyer
Strengthening of 33/11 kV Mukalmuwa (Existing) substation	No	Nil	Nil	NA	NA	NA	APDCL Land
Strengthening of 33/11 kV Khairabari (Existing) substation	No	Nil	Nil	NA	NA	NA	APDCL land
Strengthening of 33/11 kV Paneri (Existing) substation	No	Nil	Nil	NA	NA	NA	APDCL Land
Strengthening of 33/11 kV Kalaigaon (Existing) substation	No	Nil	Nil	NA	NA	NA	APDCL Land
Strengthening of 33/11 kV Tangla (Existing) substation	No	Nil	Nil	NA	NA	NA	AEGCL Land
Strengthening of 33/11 kV Parowa (Existing) substation	No	Nil	Nil	NA	NA	NA	AEGCL Land
Strengthening of 33/11 kV Dolabari (Existing) substation	No	Nil	Nil	NA	NA	NA	AEGCL Land

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, government 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 203.427 kilometre (km) which will impact an estimated of 1028.946 acres⁶ of land. These include 162.621 km of line passing through agricultural land (848.059 acre of agricultural land), 4.868 km of private plantation (36.867 acre of private plantation land) and 35.938 km of government land (144.02 acre of government land). A brief description about the type and use of land in the corridor is given in **Table 4.2**.

Table 4.2: Type and Use of Land within Corridor of RoW (in Kms/Hectares)

Sl. No.	Name of the Line	RoW (in meter)	Agricultural land	Private Plantation	Forest	Govt land	Total
A. Transmission Line							
1	220 kV Rangia-Amingaon D/C line	35	25.785 Km (223 acre)	2.865 Km (24.78 acre)	Nil	Nil	28.65 Km (247.78 acre)
2	132 kV Amingaon-Hazo D/C line	27	7.1 Km (47.37 acre)	1.5 Km (10.007 acre)	Nil	Nil	8.6 Km (57.377 acre)
3	132 kV Sonabil-Tezpur D/C line	27	12.571 Km (83.88 Acre)	Nil	Nil	3.51 Km (23.418 Acre)	16.081 Km (107.298 acre)
4	LILO of Rangia-Rowta 132 kV D/C line at Tangla	27	10.658 Km (71.108 acre)	Nil	Nil	0.140Km (0.934 acre)	10.798 Km (72.042 acre)
5	LILO of Kamalpur – Sishugram & Kamalpur - Kamakhya 132 kV S/C line at Amingaon	27	9.43 Km (62.91 acre)	Nil	Nil	Nil	9.43 Km (62.91 acre)
B. Distribution Line							
7	33 kV line from 132/33 kV (New) Hazo to 33/11 kV (existing) Mukalmuwa substation	15	29.173 km (108.13 acre)	Nil	Nil	Nil	29.173 km (108.13 acre)
8	33 kV line from 132/33 kV (New) Tangla to 33/11 kV (existing) Khairabari Substation		9.832 Km (36.44 acre)	Nil	Nil	6.150 Km (22.795 acre)	15.982 Km (59.24 acre)

⁶ Total Line Length (kilometers) X Right of Way (meters)X1000/ 4,047= Area in Acre

9	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New) substation		6.55 km (24.27 acre)	Nil	Nil	Nil	6.55 km (24.27 acre)
10	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) substation		8.678 km (32.16 acre)	Nil	Nil	Nil	8.678 km (32.16 acre)
11	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) substation		11.172 km (41.4 acre)	Nil	Nil	Nil	11.172 km (41.4 acre)
12	33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) Substation		4.40 Km (16.308 acre)	Nil	Nil	8.012 Km (29.697 acre)	12.412Km (46.005 acre)
13	33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) Substation		10.107Km (37.462acre)	Nil	Nil	1Km (3.706 acre)	11.107Km (41.17 Acre)
14	33 kV line from 132/33 kV Tangla (New) to 33/11 kV Kalaigaon (Existing) substation		9.470 Km (35.101 acre)	Nil	Nil	4.7 Km (17.420 acre)	14.17 Km (52.52 Acre)
15	33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) substation		Nil	Nil	Nil	2.1 Km (7.78 acre)	2.1 Km (7.78 acre)
16	33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) substation		7.5 Km (27.8 acre)	Nil	Nil	0.5 Km (1.85 Acre)	8 Km (29.65 Acre)
17	33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) substation	15	0.195 Km (0.72 acre)	Nil	Nil	4.696 Km (17.41 Acre)	4.891 Km (18.13 acre)
18	33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) substation		Nil	0.503 Km (1.86 Acre)	Nil	5.13 Km (19.01 Acre)	5.633 Km (20.87 Acre)
Total			162.621 km (848.059 acre)	4.868 km (36.867 acre)	Nil	35.938 km (144.02 acre)	203.427km (1028.946 acre)

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 but mostly restricted to tip to tip of the conductor and tower base area where average affected width/corridor would be limited to 27 meter(m) and 20 meter (maximum) instead of RoW of 35 meter and 27 m for 220 kV and for 132 kV respectively. Whereas 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 636.111 acre. Details of estimated impacted area for crop damages is given in **Table 4.3**:

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

Name of the line	Width Considered for Estimation of Loss of Crops and 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)
220 kV Rangia-Amingaon D/C line	27	25.785	2.865	28.65	191.14
132 kV Amingaon-Hazo D/C line	20	7.1	1.5	8.6	42.5
132 kV Sonabil-Tezpur D/C line	20	12.571	Nil	12.571	62.12
LILO of Rangia- Rowta 132 kV D/C line at Tangla	20	10.658	Nil	10.658	52.67
LILO of Kamalpur – Sishugram & Kamalpur - Kamakhya 132 kV S/C line at Amingaon	20	9.43	Nil	9.43	46.6
33 kV line from 132/33 kV (New) Hazo to 33/11 kV (existing) Mukalmuwa substation	10	29.173	Nil	29.173	72.08

33 kV line from 132/33 kV (New) Tangla to 33/11 kV (existing) Khairabari Substation	10	9.832	Nil	9.832	24.29
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New)	10	6.55	Nil	6.55	16.18
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) substation	10	8.678	Nil	8.678	21.44
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) substation	10	11.172	Nil	11.172	27.6
33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) Substation	10	4.40	Nil	4.40	10.87
33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) Substation	10	10.107	Nil	10.107	24.97
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Kalaigaon (Existing) substation	10	9.470	Nil	9.470	23.4
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) substation	10	Nil	Nil	Nil	Nil
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) substation	10	7.5	Nil	7.5	18.53
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) substation	10	0.195	Nil	0.195	0.481
33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) S/s	10	Nil	0.503	0.503	1.24
Total		162.621	4.868	167.489	636.111

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 220 kV / 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 28.65 km of 220 kV transmission line, 44.804 of 132 kV transmission line and 129.299 km of 33 kV distribution line proposed under the present scheme is estimated 0.0944 acre respectively. However, compensation toward loss of land shall be provided to APs which is part of RoW compensation. Details of land loss for tower base & pole are given in **Table- 4.4.**

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

Name of the line	Line length (km)	Total Tower/Pole (Nos.)	Land loss per tower/pole base (sq.m.)	Total land loss area for tower & pole base (sq.m)
220 kV Rangia-Amingaon D/C line	28.65	111	0.25	27.75
132 kV Amingaon-Hazo D/C line	8.605	31	0.25	7.75
132 kV Sonabil-Tezpur D/C line	16.081	64	0.25	16
LILO of Rangia- Rowta 132 kV D/C line at Tangla	10.658	40	0.25	10
LILO of Kamalpur – Sishugram & Kamalpur-Kamakhya 132 kV S/C line at Amingaon	9.460	39	0.25	9.75
33 kV line from 132/33 kV (New) Hazo to 33/11 kV (existing) Mukalmuwa S/s	29.173	787	0.092	72.404
33 kV line from 132/33 kV (New) Tangla to 33/11 kV (existing) Khairabari Substation	15.982	387	0.092	35.604
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New) substation	6.55	188	0.092	17.296
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) S/s	8.678	232	0.092	21.344
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) S/s	11.172	310	0.092	28.52
33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) S/s	11.812	289	0.092	26.588
33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) S/s	11.108	269	0.092	24.748
33 kV line from 132/33 kV Tangla(New) to 33/11 kV Kalaigaon (Existing) S/s	14.170	355	0.092	32.66
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) S/s	2.1 (approx)	123	0.092	11.316
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) S/s	8.00	238	0.092	21.896
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) S/s	4.891	119	0.092	10.948
33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) S/s	5.663	82	0.092	7.544
Total				382.118 \cong 0.0944 acre

4.3.4 Land area for RoW compensation as per MoP Guidelines /Govt. of Assam notification

59. Subsequent to the notification by Govt. of Assam on adoption of MoP guidelines, compensation toward damages in regard to RoW for proposed 132kV and 220 kV line @ 85% land value for tower base & maximum 15% land value for width of RoW corridor as decided by District Magistrate or any other authority shall be paid to land owners. Details of land areas considered for such compensation is given in **Table 4.5**.

Table 4.5 Land area for RoW Compensation

Name of the line	Line length (km)	Nos. of Tower	Land area for Tower base per km (in acre)	Total land area for tower base (In acre)	*RoW Corridor area per km (In acre)	Total land area for RoW Corridor (In acre)	Total Land area (In acre)
220 kV Rangia-Amingaon D/C line	28.65	111	0.077	2.20	8.571	245.55	247.75
132 kV Amingaon-Hazo D/C line	8.605	31	0.036	0.31	6.635	57.09	57.4
132 kV Sonabil-Tezpur D/C line	16.081	64	0.036	0.5789	6.635	106.69	107.26
LILO of Rangia- Rowta 132 kV D/C line at Tangla	10.658	40	0.036	0.3836	6.635	70.71	71.09
LILO of Kamalpur – Sishugram & Kamalpur - Kamakhya 132 kV S/C line at Amingaon	9.460	39	0.036	0.34	6.635	62.76	63.1

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

4.3.5. Loss of Trees

60. Total numbers of trees likely to be affected due to construction of 28.65 km of 220kV, 44.804km of 132 kV transmission line and 129.299 km of 33 kV distribution line is approx. 2327. For some lines, identification of trees is yet to be done. Out of 667 trees, 615 are private trees and 52 trees in govt. land. During construction, private trees will be compensated as per the entitlement matrix. Details on number of trees for each line are given in **Table 4.6**.

Table 4.6: Loss of Trees

Name of Line	Trees in Private Area (Numbers)	Trees in Govt. Area (Numbers)	Total Trees (Numbers)
220 kV Rangia-Amingaon D/C line	Nil	Nil	Nil
132 kV Amingaon-Hazo D/C line	99	Nil	99

132 kV Sonabil-Tezpur D/C line	Not yet identified	Not yet identified	Not yet identified
LILO of Rangia- Rowta 132 kV D/C line at Tangla	Not yet identified	Not yet identified	Not yet identified
LILO of Kamalpur – Sishugram & Kamalpur-Kamakhya 132 kV S/C line at Amingaon	Nil	Nil	Nil
33 kV line from 132/33 kV (New) Hazo to 33/11 kV (existing) Mukalmuwa substation	164	Nil	164
33 kV line from 132/33 kV (New) Tangla to 33/11 kV (existing) Khairabari Substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New) substation	118	Nil	118
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) substation	81	Nil	81
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) substation	83	Nil	83
33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) Substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) Substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Kalaigaon (Existing) substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) substation	70	52	122
33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) substation	Only Trimming have to be done	Only Trimming have to be done	Only Trimming have to be done
Total	615	52	667

Source: Detailed Survey

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

61. It has been observed during survey that none of any small structure exist along the right of way of proposed lines. 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. Since, no such small structure will be impacted in instant scheme, there will be no requirement for compensation of the same. Details on impacts on small structures are given in **Table 4.7**

Table 4.7: Loss of Other Assets

Name of Line	No. of storage sheds/huts
220 kV Rangia-Amingaon D/C line	Nil
132 kV Amingaon-Hazo D/C line	Nil
132 kV Sonabil-Tezpur D/C line	Nil
LILO of Rangia- Rowta 132 kV D/C line at Tangla	Nil
LILO of Kamalpur – Sishugram 132 kV S/C line at Amingaon	Nil
LILO of Kamalpur – Khamakhya S/C line at Amingaon	Nil
33 kV line from 132/33 kV (New) Hazo to 33/11 kV (existing) Mukalmuwa substation	Nil
33 kV line from 132/33 kV (New) Tangla to 33/11 kV (existing) Khairabari Substation	Nil
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New) substation	Nil
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) substation	Nil
33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) substation	Nil
33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) Substation	Nil
33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) Substation	Nil
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Kalaigaon (Existing) substation	Nil
33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) substation	Nil
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) substation	Nil
33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) substation	Nil
33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) substation	Nil

Source: Detailed Survey

4.4. Details of Affected Persons

62. The total estimated number of affected persons which may be impacted temporarily is 1117. However, as is presented in the report, actual impact till this reporting period has taken place only at 5 locations out of 396. Till date, 22 numbers of affected persons have been identified. However, State Utilities/ POWERGRID will schedule civil works in such a way to minimize impacts and substantially reduce the damages to crops and therefore the number of affected persons and

Agricultural Households (AHH).

Table 4.8: Number of Affected Persons

Name of Line	Total APs
220 kV Rangia-Amingaon D/C line	320
132 kV Amingaon-Hazo D/C line	92
132 kV Sonabil-Tezpur D/C line	210
LILO of Rangia- Rowta 132 kV D/C line at Tangla	110
LILO of Kamalpur – Sishugram 132 kV S/C line at Amingaon	185
LILO of Kamalpur – Khamakhya S/C line at Amingaon	160
33 KV line from 132/33 KV (New) Hazo to 33/11 KV (existing) Mukalmuwa substation	Not yet identified
33 KV line from 132/33 KV (New) Tangla to 33/11 KV (existing) Khairabari Substation	Not yet identified
33 KV line from 132/33 KV Hazo (New) to 33/11 KV Sesa (New) S/s	Not yet identified
33 KV line from 132/33 KV Hazo (New) to 33/11 KV Ramdiya (New) S/s	Not yet identified
33 KV line from 132/33 KV Hazo (New) to 33/11 KV Domdoma-hazo S/s	Not yet identified
33KV line from 132/33 KV Tangla (New) to 33/11 KV Harisingha (New) S/s	Not yet identified
33KV line from 132/33 KV Tangla (New) to 33/11 KV Paneri (Existing) S/s	Not yet identified
33 KV line from 132/33 KV Tangla (New) to 33/11 KV Kalaigaon substation	Not yet identified
33 KV line from 132/33 KV Tangla (New) to 33/11 KV Tangla (Existing) S/s	Not yet identified
33 KV line from 132/33 KV Tezpur (New) to 33/11 KV LGM hospital S/s	6
33 KV line from 132/33 KV Tezpur (New) to 33/11 KV Parowa (Existing) S/s	22
33 KV line at Tezpur (New) to 33/11 KV Dolabari (Existing) substation	12
Total	1117

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. AEGCL & APDCL/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 Assam, 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 instant project is being implemented in the Kamrup Rural, Sonitpur and Udalguri district which are not part of the areas covered under the provisions of sixth schedule. However, it may be noted that if additional social issues crop up during the actual impact, then they shall be dealt separately in accordance with the provisions of Social Management Framework (SMF, A-C) placed in the AEGCL/APDCL’s ESPPF.

4.7. 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 in Kms (Transmission/Distribution Line)	73.454/ 129.299
Number of Towers/ Poles	285/3379
Total Area under RoW (acre)	1028.946
Total APs (estimated)	1117
Affected Structures (Small Sheds for agricultural purpose)	Nil
Area of Temporary Damages for crop compensation (In acre)	636.111
Total Trees	667 + branch trimming

Source: Detailed Survey

V. ENTITLEMENTS, ASSISTANCE AND BENEFITS

5.1. Entitlements

68. In the instant project, 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 diminution land value 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. In order to streamline the compensation process, a disbursement module has been developed specifying time period with respect to various process/stages which will be implemented for the instant project.

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**.

Table 5.1: Entitlement Matrix

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

Sl.	Type of Issue/ Impact	Beneficiary	Entitlement Options
(i)	House	Titleholders	Cash compensation at replacement cost (without deduction for salvaged material and depreciation value) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below.
(ii)	Shop/ Institutions/ Cattle shed	Individual/ Titleholders	Cash compensation plus Rs. 10000/- for construction of working shed/shop plus transition benefits as per category-5 below
(iii)	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
(iv)	Tribal/ Vulnerable APs	Vulnerable APs ⁷	One time additional lump sum assistance not exceeding 25% of total compensation on recommendation of State Authority/ADC/VC.

(#) Since Govt. of Assam has already adopted MoP guidelines of Oct'15, compensation toward damages in respect to RoW shall be paid as Gov. of Assam notification dated 10.03.17.

*** 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, Power (Electricity) Department, Govt. of Assam vide notification dated 16th March, 2016 has authorized AEGCL/APDCL to exercise all the power vested in the Telegraph Authority under part-III of the Indian Telegraph Act, 1885, to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. However, the provisions of same act in Section 10 (d) stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, AEGCL & APDCL/ 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. AEGCL/APDCL 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

⁷ Vulnerable APs include scheduled tribes residing in scheduled areas/ physically handicapped/ disabled families etc.

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:

- 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 Assam 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 shall contain 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 is 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 DC issues a tree cutting permit to AEGCL/APDCL to enable removal / damage to the standing tree/crop identified in the line corridor.

77. Once the tree/crop is removed / damaged, AEGCL/APDCL 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 AEGCL & APDCL/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

79. Govt of Assam adopted the MoP guidelines of Oct.' 2015 on land compensation for tower footing and RoW Corridor on 10th March 2017 which provides for payment of 85% and 15% of land value towards compensation for land coming under tower base and line corridor respectively. Based on this, land compensation will be paid for the sub projects located in the state of Assam. However, actual payment will be made only after fixation of land rates by the concerned DC/DM. After fixation of rates by DC/DM and determination of land ownership details, payment of compensation will be made to the respective landowners to the extent of land area coming under tower/corridor.

5.5. Compensation for Structure

80. 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, none of the small structures is 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 AEGCL & APDCL/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 parallelly with the construction activity of line.

5.6. Compensation Disbursement Module

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

Table 5.2: Compensation Disbursement Module

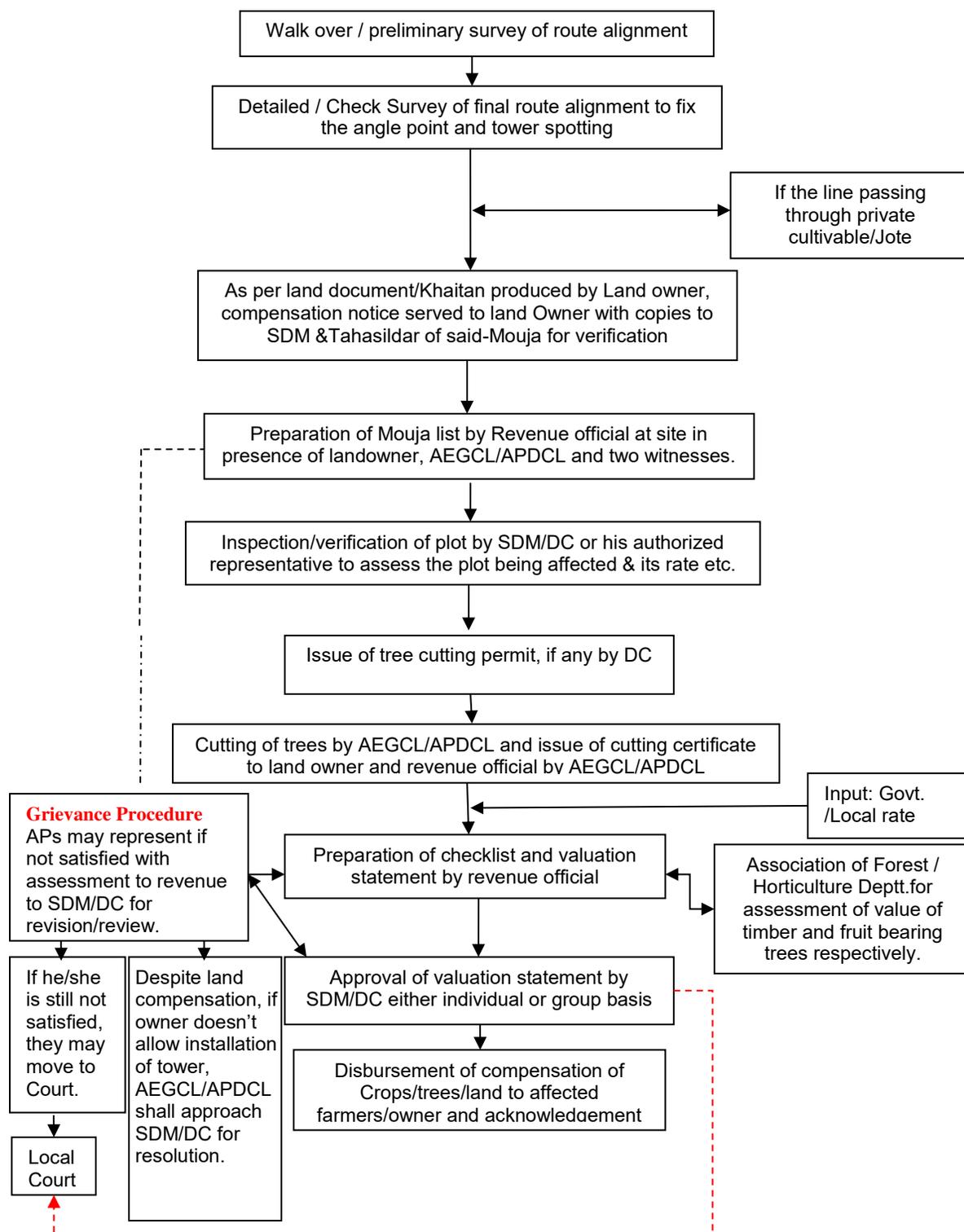
Activity/Stage	Process	Maximum Time Period from Cut-Off date
Tower Foundation/ Erection/ Stringing	Serving of Notice(Cut-off date)	0 date
	Verification of Ownership by Revenue Deptt.	15 days
	Assessment/Verification of damages by Revenue Deptt.	45 days
	Online disbursement*	60 days**

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

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

***** For payment of land compensation also, the above schedule will be followed, however, the process will start only after fixation of land rates by concerned DC/DM.**

Figure-5.1: Tree / Crop Compensation Process



VI. INFORMATION DISCLOSURE, CONSULTATION & PARTICIPATION

6.1. Consultations

82. 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 AEGCL/ APDCL & 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 AEGCL/ APDCL approach to minimizing and solving them;
- Trees and crop compensation process.

83. In the instant project also, many group meetings were organized (informally and formally) in all villages where the interventions are likely to happen (**Table - 6.1**). These meetings were attended by Village Panchayat members, senior/respected person of village, interested villagers/general public and representatives from AEGCL/APDCL & POWERGRID. Besides, gender issues have also been addressed to the extent possible during such consultation process (total 14 female out of 98 participants). 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 -4**.

Table 6.1 Details of Consultations

Date of meeting	Venue of Meeting	No. of Persons attended	Persons Attended
Public Consultation Meeting			
05.11.2017	Kumargaon, Tezpur District- Sonitpur	15	Village head, Panchayat members/ village headmen, project affected persons & general public etc.
26.04.2017	Anganwari Kendra, Puraniali Mur, Panchmile District-Sonitpur	16	-Do-
26.04.2017	Anganwari Kendra, Jahajduba, Tezpur District-Sonitpur	15	Panchayat members, project affected persons and general public etc.
23.08.2017	Tangla College Stadium, Uttar Jangalpara Village, District- Udalgiri	24	-Do-
27.11.2017	Tokankata, Kalaigaon District- Udalgiri	28	-Do-

84. During consultations/interaction processes with people of the localized areas, AEGCL/APDCL field staffs explained benefit of the project, impacts of transmission 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.

85. 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.
- To provide flexibility in disbursement of compensation;
- Direct payment of compensation to affected land owners and expeditious disbursement of compensation.

86. AEGCL/APDCL & POWERGRID representative replied their queries satisfactorily and it was assured that compensation will be paid in time after Revenue department fixed/award the amount.

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

87. The process of such consultation to be continued during project implementation and even during O&M stage. The progress and proposed plan for Public consultation is described in **Table 6.2**

Table 6.2: Plan for Future Consultations

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

6.3. Information Disclosure

88. The draft/summary of CPTD will be disclosed to the affected households and other stakeholders by placing it on AEGCL & POWERGRID websites. AEGCL/APDCL & 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 is also issued to APs after the detailed/ check survey and finalization of tower location during the construction. Affected persons also visit site/construction offices of AEGCL/APDCL & POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD/ Entitlement Matrix in local language will be placed at construction offices/ sites. The CPTD will be disclosed on website of World Bank, AEGCL/APDCL & POWERGRID. AEGCL/APDCL & POWERGRID will organize further public consultation meetings with the stakeholders to share the views of public and all possible clarifications. This consultation process will continue throughout the project implementation period.

VII. INSTITUTIONAL ARRANGEMENTS

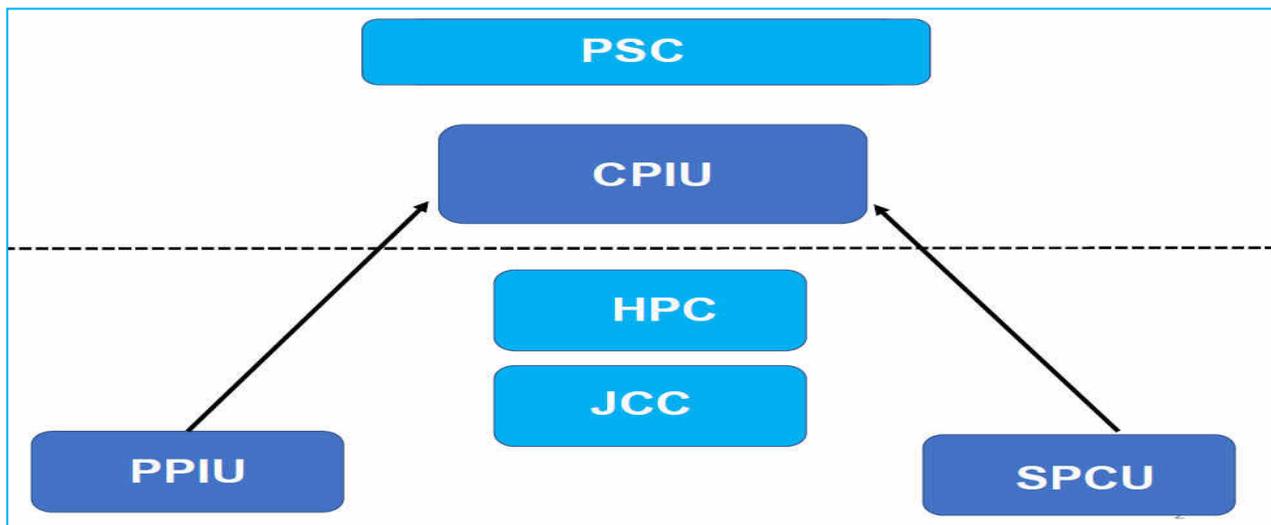
7.1 Administrative Arrangement for Project Implementation

89. Ministry of Power (MoP), GoI 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, Gol and The Bank may join as and when needed. Minutes of the meeting will be shared with all concerned and if required, with Gol and The Bank.
- B. **High Power Committee (HPC):** The Utility in consultation with its State Government shall arrange to constitute a High Power Committee (HPC) consisting of high level officials from the Utility, State/ District Administration, Law enforcement agencies, Forest Department. etc. so that various permission/ approvals/ consents/ clearances etc. are processed expeditiously so as to reach the benefits of the Project to the end consumers. HPC shall meet on bimonthly basis or earlier, as per requirement. This forum shall be called as High Power Committee Meeting (HPCM) and the SPCU shall keep a record of every meeting. Minutes of the meeting will be shared with all concerned and if required, with Gol and The Bank.
- C. **Contractor's Review Meeting (CRM):** Periodic Review Meeting will be held by officials of PIU with Contractors at field offices, State Head Quarters (PIU location) and if required with core team of IA at Guwahati. These shall be called "Contractor's Review Meeting" (CRM). PIU shall

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

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

7.3. Arrangement for Safeguard Implementation

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 Senior General Manager (Sr. GM) 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 AEGCL/APDCL which includes overall coordination, planning, implementation, financing and maintaining all databases & also work closely with APs and other stakeholders. A central database will also be maintained for regular updation of social assessment & compensation data. State Utilities & POWERGRID will ensure that local governments are involved in the CPTD implementation to facilitate smooth settlement of compensation related activities. Roles and responsibilities of various agencies for CPTD implementation are presented in **Table 7.1**.

Table 7.1: Agencies Responsible for CPTD Implementation

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

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

a) WTB for Land Compensation

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

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

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

Note: Both a and b activities shall run parallelly

VIII. GRIEVANCE REDRESS MECHANISM

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 are 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) have been constituted i.e. project/scheme level and Corporate/HQ level. The project level GRCs include members from AEGCL/APDCL, 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.

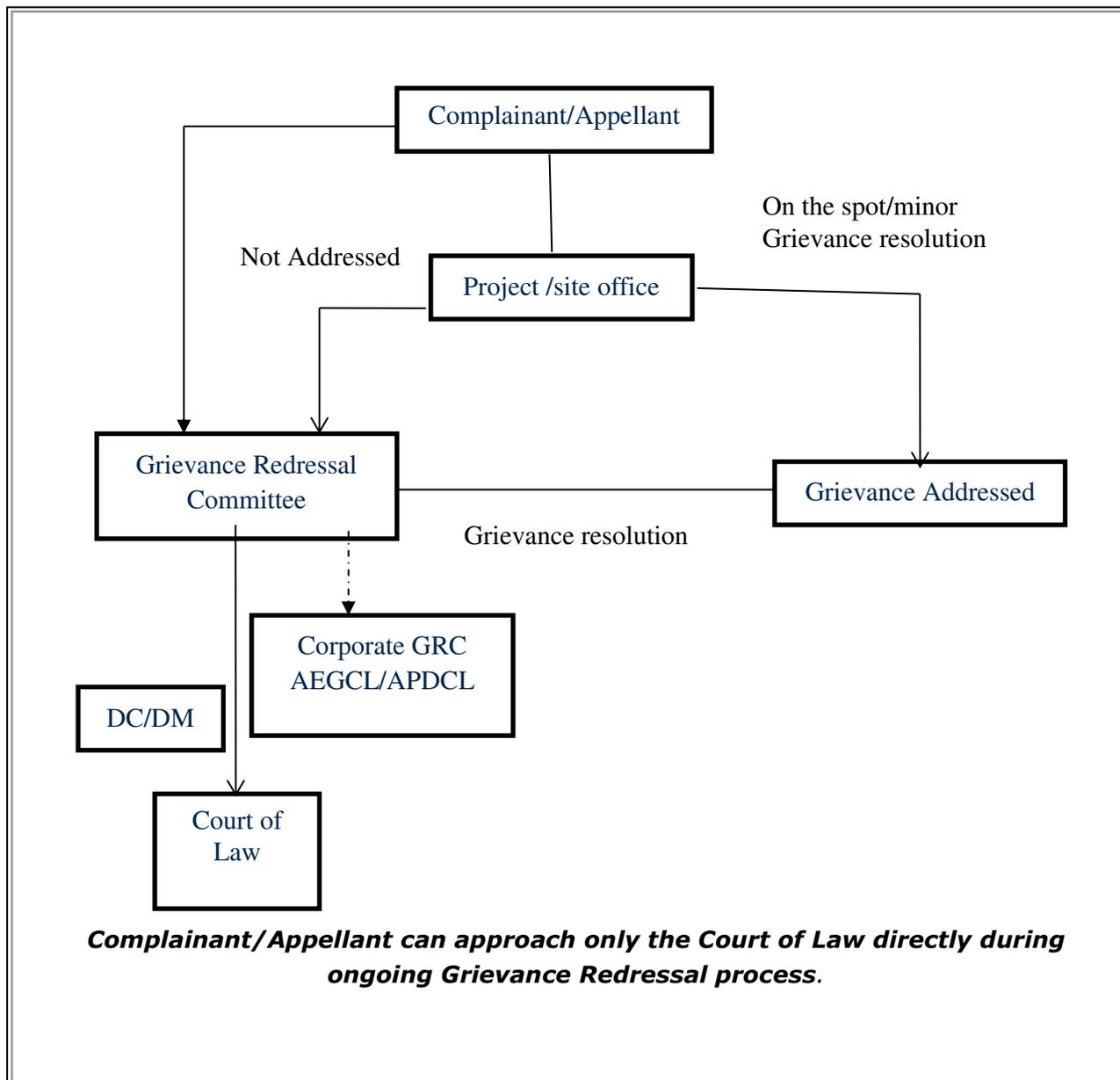
95. The complainant will also be allowed to submit its complaint to local project official who will pass it to GRC immediately but not more than 5 days of receiving such complaint. The first meeting of GRC will be organized within 15 days of its constitution/disclosure to formulate procedure and frequency 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 function under the chairmanship of Director (PMU) who nominated other members of GRC including one representative from corporate ESMC 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, AEGCL/APDCL & POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. Details are depicted below in **Figure-8.1**:

Figure-8.1: Flow Chart of Grievance Redress Mechanism



IX. BUDGET

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. A budget provision has also been made for compensation for Tower Base (85% of the land cost) and RoW Corridor (15% of the land cost) as per MoP guidelines and subsequent State Govt. order. Accordingly, the cost has been estimated for proposed 220/132 kV lines only in the budget by including these provisions. However, this is a tentative budget which may change during the original course of implementation. The unit cost for the loss of crop has been derived through rapid field appraisal and based on AEGCL/APDCL & 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 land use restriction, crops losses, other damages etc. As per AEGCL/APDCL & 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. As detailed in above paras, initial study has confirmed that no residential structure shall be affected. Therefore, provisions of budget expenditure for implementation of CPTD for the subprojects considering corridor 27 meter, 20 meter & 10 meter maximum for 220 kV, 132 kV & 33 kV line respectively.

9.1. Compensation for Land under Tower Base and along RoW Corridor

99. The land area for 132 kV tower base is estimated as 3.8125 acre. Similarly, for RoW corridor the area is estimated as 542.8 acre. 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. 1269.885 Lakhs. A detail of cost is given below in **Table 9.1**.

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

Name of Line	Line Length (Km)	Land Area for Tower Base (acre)	Land Area for RoW Corridor* (acre)	Avg. Cost of Land (Lakhs / acre)	Total in Lakhs (Tower base @ 85% & Corridor@15%)
220 kV Rangia-Amingaon D/C line	28.65	2.20	245.55	15.00	580.53
132 kV Amingaon-Hazo	8.605	0.31	57.09	15.00	132.4

D/C line					
132 kV Sonabil-Tezpur D/C line	16.081	0.5789	106.69	15.00	247.43
LILO of Rangia- Rowta 132 kV D/C line at Tangla	10.658	0.3836	70.71	15.00	163.98
LILO of Kamalpur – Sishugram & Kamalpur-Kamakhya 132 kV S/C line at Amingaon	9.460	0.34	62.76	15.00	145.545

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

9.2. Compensation for Crops and Trees

100. The crop compensation is estimated 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 are given in **Table 9.2** below.

Table 9.2: Cost of Compensation for Crops and Trees

Sl. No.	Name of the Line	Total Length (Km)	Compensation /Km (In Lakh)	Total compensation cost for Crops & trees (Lakh)
1	220 kV Rangia-Amingaon D/C	28.65	5.0	143.25
2	132 kV Amingaon-Hazo D/C	8.605	5.0	43.025
3	132 kV Sonabil-Tezpur D/C	16.081	5.0	80.405
4	LILO of Rangia- Rowta 132 kV D/C line at Tangla	10.658	5.0	53.29
5	LILO of Kamalpur – Sishugram & Kamalpur-Kamakhya 132 kV S/C line at Amingaon	9.460	5.0	47.3
6	33 kV line from 132/33 kV (New) Hazo to 33/11 kV Mukalmuwa substation	29.173	0.5	5.83
7	33 kV line from 132/33 kV (New) Tangla to 33/11 kV Khairabari Substation	15.982	0.5	7.991
8	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Sesa (New) substation	6.55	0.5	3.275

9	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Ramdiya (New) substation	8.678	0.5	4.339
10	33 kV line from 132/33 kV Hazo (New) to 33/11 kV Domdoma-hazo (New) substation	11.172	0.5	5.586
11	33kV line from 132/33 kV Tangla (New) to 33/11 kV Harisingha (New) Substation	11.812	0.5	5.906
12	33kV line from 132/33 kV Tangla (New) to 33/11 kV Paneri (Existing) Substation	11.108	0.5	5.554
13	33 kV line from 132/33 kV Tangla (New) to 33/11 kV Kalaigaon (Existing) substation	14.170	0.5	7.085
14	33 kV line from 132/33 kV Tangla (New) to 33/11 kV Tangla (Existing) substation	2.1	0.5	1.05
15	33 kV line from 132/33 kV Tezpur (New) to 33/11 kV LGM hospital (New) substation	8	0.5	4
16	33 kV line from 132/33 kV Tezpur (New) to 33/11 kV Parowa (Existing) substation	4.891	0.5	2.4455
17	33 kV line at Tezpur (New) to 33/11 kV Dolabari (Existing) substation	5.663	0.5	2.8315
Total				423.163

9.3. Summary of Budget

101. The total indicative cost is estimated to be **INR 1760.548 Lakhs** equivalent to **USD 2.46** 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	423.163	0.59
A-2: Land Compensation for Tower Base and RoW Corridor	1269.885	1.77
Sub Total-A	1693.048	2.37
B: Implementation Support Cost		
B-1: Man-power involved for CPTD Implem. & Monitoring	11.22	0.015
B-2: External Monitoring, if required	5.00	0.0071
Sub Total- B	16.22	0.0221
Total (A+B)	1709.268	2.3921
Contingency (3%)	51.28	0.07
Grand Total	1760.548	2.46

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**.

Table 10.1 Tentative Implementation Schedule

Sl. No.	Activity	1 st Year				2 nd Year				3 rd Year			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 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												

XI. MONITORING AND REPORTING

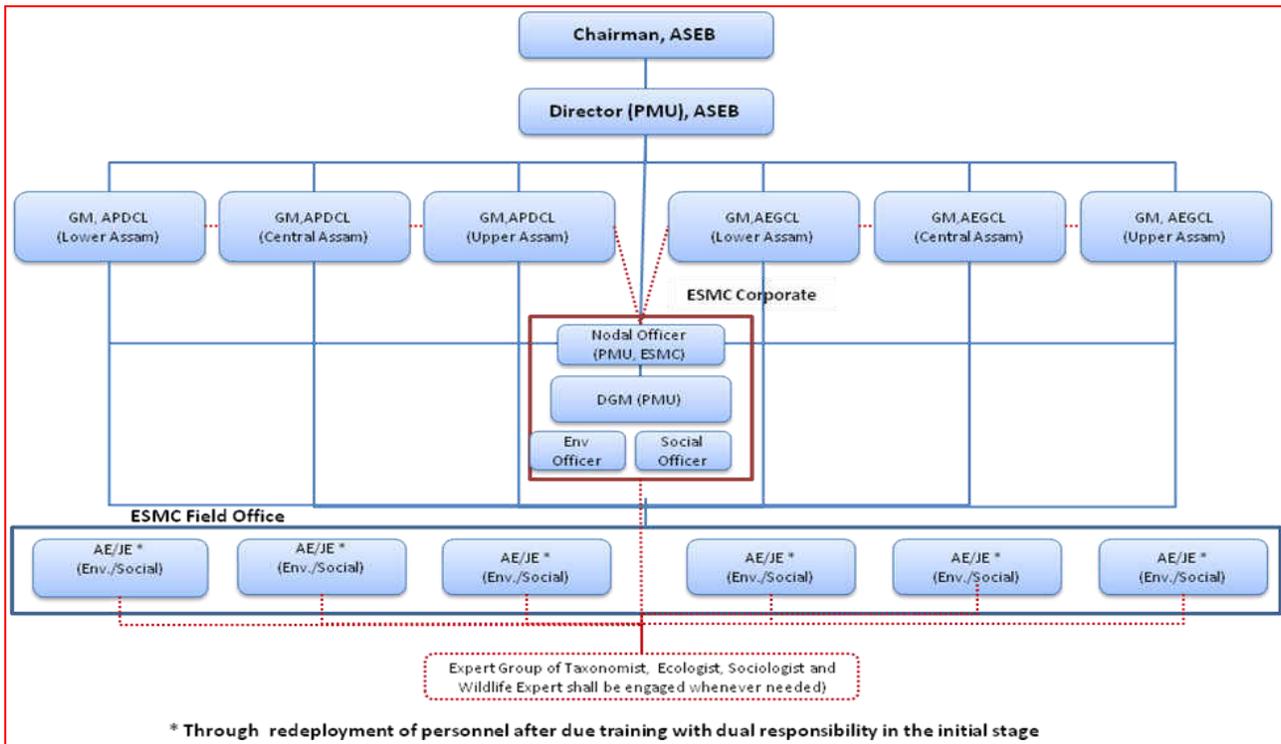
103. Monitoring is a continuous process at all stages of project. Monitoring of CPTD implementation will be the responsibility of POWERGRID as well as the State Utility.

104. Internal monitoring will include: (i) administrative monitoring: daily planning, implementation, feedback and trouble shooting, 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. AEGCL/APDCL is well equipped to implement and monitor its environment and social management plan including CPTD. Organizational Support Structure of AEGCL/APDCL for monitoring of above is given in **Figure-11.1**.

Figure – 11.1: AEGCL/APDCL Support Structure for Safeguard Monitoring



11.1 Status of Compensation (Tree/ Crop / Land / Structures)

107. As explained in previous chapters, compensation for the loss of crops, trees, land, structure etc. are paid to Affected Persons (APs) based on actual damages in 3 different stages i.e. during foundation work, tower erection & stringing as per norms. Out of total EHV 5 lines involving 388 tower locations, work commenced in one line only at 4 locations for which assessment of compensation is under progress.

11.2 Status of Grievances

108. No minor or major complaints including court case has been registered till date against any of the subprojects covered under present CPTD.

ANNEXURE - 1

EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT

EVALUATION OF ALTERNATIVES ROUTE ALIGNMENT

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

1. RANGIA - AMINGAON 220 KV D/C LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars			
i.	Route Length (km)	28.65	36.26	32.89
ii.	Terrain			
	Hilly	NIL	10%	NIL
	Plain	100%	90%	100%
2.	Environmental details			
i.	Name of District through which the line passes	Kamrup (Rural)	Kamrup (Rural)	Kamrup (Rural)
ii.	Town in alignment	Rangia	Rangia	Rangia
iii.	House within ROW	To be assessed during detail survey	To be assessed during detail survey	To be assessed during detail survey
iv.	Forest involvement in Ha/(km)	NIL	NIL	NIL
v.	Type of Forest (RF/PF/Mangrove/Wildlife Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	N/A	N/A	N/A
vi.	Density of Forests	N/A	N/A	N/A
vii.	Type of flora	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa vulgaris</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>) Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa vulgaris</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc
viii.	Type of fauna	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found

S.N	Description	Alternative-I	Alternative-II	Alternative-III
ix.	Endangered species, if any	NIL	NIL	NIL
x.	Historical/cultural monuments	NIL	NIL	NIL
3	Compensation Cost (in Lakhs)			
i.	Crop (Non Forest)	Estimated @ Rs. 5 lakhs per Km	Estimated @ Rs. 5 lakhs per Km	Estimated @ Rs. 5 lakhs per Km
ii.	Forest (CA+NPV)	N/A	N/A	N/A
4.	No. of Crossings (Nos.)			
i.	Highway (National/State)	1	NIL	
ii.	Power line	1	NIL	NIL
iii.	Railway line	1	NIL	1
iv.	River crossing	4	4	4
5.	Overall remarks	Preferred Route being shortest and is easily accessible due to its proximity to existing roads	Line length is longer as compared to Alt.1 & 3 and thus involve more tree felling	Relatively more in line length than Alt.-1 and route is not easily approachable

From the above comparison of the three (3) different alternatives, it is evident that although there is no forest involvement in all the three routes, Alternative- I is found to be shortest route and is easily accessible due to its proximity to existing roads and paths. Also, since route is shorter in length, it will involve minimum tree felling. Hence, lesser degree of environmental impacts as well as construction and O&M problems are anticipated. Hence, **Alternative - I** is considered as the most optimum route and recommended for detailed survey.

2. SONABIL - TEZPUR 132 KV D/C LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars			
i.	Route Length (km)	16.081	18.34	17.02
ii.	Terrain			
	Hilly	NIL	NIL	NIL
	Plain	100%	100%	100%
2.	Environmental details			
i.	Name of District through which the line passes	Sonitpur	Sonitpur	Sonitpur
ii.	Town in alignment	Tezpur	Tezpur	Tezpur
iii.	House within ROW	To be assessed during detail survey	To be assessed during detail survey	To be assessed during detail survey
iv.	Forest involvement in Ha/(km)	NIL	NIL	NIL

S.N	Description	Alternative-I	Alternative-II	Alternative-III
v.	Type of Forest (RF/PF/Mangrove/ Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	NIL	NIL	NIL
vi.	Density of Forests	N/A	N/A	N/A
vii.	Type of flora	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc
viii.	Type of fauna	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like some species of Monkey also found
ix.	Endangered species, if any	NIL	NIL	NIL
x.	Historical/cultural monuments	NIL	NIL	NIL
3	Compensation Cost (in Lakhs)			
i.	Crop (Non Forest)	Estimated @ Rs. 5 lakhs per Km	Estimated @ Rs. 5 lakhs per Km	Estimated @ Rs. 5 lakhs per Km
ii.	Forest (CA+NPV)	N/A	N/A	N/A
4.	No. of Crossings (Nos.)			
i.	Highway (National/State)	NIL	NIL	NIL
ii.	Power line	3	3	3
iii.	Railway line	NIL	NIL	NIL
iv.	River crossing	2	2	2
5.	Overall remarks	Preferred Route as the line length is shorter and better accessibility	Relatively more in line length	Line length is longer and thus involve more tree felling

It is vivid from the above comparison that none of the three Alternatives involve any forest area. However, Alternative- I is the shortest route and has better accessibility. It also passes mostly through paddy fields. Hence, lesser degree of tree felling and ROW problems are anticipated. Therefore, **Alternative-I** is found to be the most optimum route and recommended for detail survey.

3. 132/33 KV HAZO (EXISTING) SUBSTATION TO 33/11 KV MUKALMUWA (EXISTING) SUBSTATION 33 kV LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars (BEE LINE LENGTH :- 18.62 KM)			
i.	Route Length (km)	29.173	32.42	31.56
ii.	Terrain			
	Hilly	NIL	NIL	NIL
	Plain	100%	100%	100%
2.	Environmental details			
i.	Name of District/District details through which the line passes	Kamrup (Rural)	Kamrup (Rural)	Kamrup (Rural)
ii.	Town in alignment	Hazo & Mukalmuwa	Hazo & Mukalmuwa	Hazo & Mukalmuwa
iii.	House within ROW			
iv.	Forest involvement in Ha/(km)	NIL	NIL	NIL
v.	Type of Forest (RF/PF/Mangrove/Wildlife Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	NIL	NIL	NIL
vi.	Density of Forests	N/A	N/A	N/A
vii.	Type of flora	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc	Bamboo (<i>Bambusa balcooa</i>), Paddy(<i>Oryza sativa</i>) Banana (<i>Musa acuminata</i>), Pineapple (<i>Ananas comosus</i>), Betel nut (<i>Areca catechu</i>), Tea (<i>Camellia sinensis</i>) etc

S.N	Description	Alternative-I	Alternative-II	Alternative-III
viii.	Type of fauna	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like Fox, Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like Fox, Monkey also found	Assamese Macaque (<i>Macaca assamensis</i>), Grey Peacock Pheasant (<i>Polyplectron bicalcaratum</i>), Asian Toad(<i>Bufo melanostictus</i>) and common fauna like Fox, Monkey also found
ix.	Endangered species, if any	NIL	NIL	NIL
x.	Historical/cultural monuments	NIL	NIL	NIL
3	Compensation Cost (in Lakhs)			
i.	Crop (Non Forest)	Estimated @ Rs. 0.5 Lakhs/ Km	Estimated @ Rs. 0.5 Lakhs/ Km	Estimated @ Rs. 0.5 Lakhs/ Km
ii.	Forest (CA+NPV)	N/A	N/A	N/A
4.	No. of Crossings (Nos.)			
i.	Highway (National/State)	1	NIL	1
ii.	Power line	1	1	1
iii.	Railway line	NIL	NIL	NIL
iv.	River crossing	3	3	3
5.	Overall remarks	Preferred Route being shortest involving minimum tree felling and is easily accessible due to its proximity to existing village/state roads	Relatively more in line length and difficult in accessibility	Line length is longer and thus involve more tree felling

From the above comparison of the three different alternatives, it is evident that although there is no forest involvement in all the three routes, Alternative- I is found to be shortest route involving minimum tree felling and is easily accessible due to its proximity to existing village/state roads as compared to other two alternatives. As lesser degree of environmental impacts as well as construction and O&M problems is anticipated, **Alternative-I** is considered as the most optimized route and recommended for detailed survey

4. 132/33 KV TANGLA (NEW) SUBSTATION TO 33/11 KV KHAIRABARI (EXISTING) SUBSTATION 33 kV LINE

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	Route particulars (BEE LINE LENGTH:- 13.06 KM)			
i.	Route Length (km)	15.982	16.84	17.38
ii.	Terrain			
	Hilly			
	Plain	100%	100%	100%
2.	Environmental details			

S.N	Description	Alternative-I	Alternative-II	Alternative-III
i.	Name of District through which the line passes	Udalguri	Udalguri	Udalguri
ii.	Town in alignment	Tangla and Khairabari	Tangla and Khairabari	Tangla and Khairabari
iii.	House within ROW	To be assessed during detail survey	To be assessed during detail survey	To be assessed during detail survey
iv.	Forest involvement in Ha/(km)	NIL	NIL	NIL
v.	Type of Forest (RF/PF/Mangrove/Wildlife Area/Elephant corridor/Biodiversity Hotspots/Biosphere Reserve/Wetlands or any other environmentally sensitive area.	NIL	NIL	NIL
vi.	Density of Forests	N/A	N/A	N/A
vii.	Type of flora	Mostly paddy/crops	Mostly paddy/crops/Trees	Mostly paddy/crops/Trees
viii.	Type of fauna			
ix.	Endangered species, if any	NIL	NIL	NIL
x.	Historical/cultural monuments	NIL	NIL	NIL
3	Compensation Cost (in Lakhs)			
i.	Crop (Non Forest)	Estimated @ Rs. 0.5 lakhs / KM	Estimated @ Rs. 0.5 lakhs / KM	Estimated @ Rs. 0.5 lakhs / KM
ii.	Forest (CA+NPV)	N/A	N/A	N/A
4.	No. of Crossings (Nos.)			
i.	Highway (National/State)	2	2	2
ii.	Power line	NIL	NIL	NIL
iii.	Railway line	NIL	NIL	NIL
iv.	River crossing	2	2	2
5.	Overall remarks	Preferred Route being shortest involving minimum tree felling and is easily accessible due to its proximity to existing village/state roads	Relatively more in line length and difficult in accessibility	Line length is longer and thus more tree felling is anticipated

As it is evident from the above discussions that Alternative-I is the shortest among all the three routes studied, though none of the routes involve any forest area. Additionally, Alternative I also enjoys better accessibility due to its proximity to village roads and lesser degree of ROW problems are expected in case of Alternative-I. Hence, **Alternative-I** is found to be most optimum and recommended for detail survey.

ANNEXURE - 2

***GOVT. OF ASSAM NOTIFICATION ON ROW
COMPENSATION***

**GOVERNMENT OF ASSAM
POWER (ELECTRICITY) DEPARTMENT
DISPUR, GUWAHATI - 6**

NOTIFICATION

Dated Dispur the 10th March, 2017

No. PEL.219/2015/91: The Governor of Assam is pleased to notify the following rates for payment of compensation towards damages in regard to Right of Way for transmission lines. In accordance with the Guidelines of Ministry of Power, Govt. of India, vide Ref. No. 03/07/2015-Trans, dtd. 15.10.2015 for maintaining uniformity in compensation payment to the affected land owners during construction of transmission lines, it has been decided that a similar payment methodology towards compensation shall also be adopted in the State of Assam. These guidelines of payment methodology of compensation towards "damages" as stipulated in Section 67 & 68 of the Electricity Act, 2003 read with Section 10 and 16 of Indian Telegraph Act 1885 shall be in addition to the compensation towards normal crop and tree damages. This amount will be payable only for transmission lines supported by tower base of 66 KV and above, and not for sub-transmission and distribution lines below 66KV.

- Compensation @85% of land value as determined by Deputy Commissioner / BTC or any other competent authority based on Circle rate / Guideline value / Stamp Act rates for tower base area (between four legs at ground level) impacted severely due to installation of tower / pylon structure.
- 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 at a maximum rate of 15% of land value as determined by Deputy Commissioner or any other competent authority based on Circle rate / Guideline value / Stamp Act rates.

For this purpose, the width of ROW corridor shall not be more than that prescribed in table at Annexure-I and shall not be less than the width directly below the conductors.

- 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.

The above guidelines shall be effective from the date of issuance of the above mentioned Government of India guidelines and shall be applicable for only those new transmission line / projects where construction have started after this date, i.e. 15.10.2015. This guideline shall not be applicable for existing transmission lines which are already in service or under construction before the aforesaid date, or for maintenance of any existing transmission line.



Annexure -I

ROW width for different voltage line*

Transmission Voltage	Width of Right of Way (in Meters)
66KV	18
110 KV	22
132KV	27
220 KV	35
400KV S/C	46
400KV D/C	46
+/-500KV HVDC	52
765 KV S/C (with delta configuration)	64
765 KV D/C	67
+/-800KV HVDC	69
1200 KV	89

* Width of Right of Way is as per Ministry of Environment & Forests (MoEF) guidelines dtd. 05.05.2014.

This issues with the concurrence of Revenue & Disaster Management Department, Govt. of Assam, as well as the Finance Department, Govt. of Assam.

-Sd/-

(Sri. Rajiv Kr. Bora, I.A.S.)
Additional Chief Secretary to the Govt. of Assam,
Power (Electricity), etc. Department

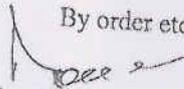
Memo No.PEL.219/2015/91-A

Copy to:

Dated Dispur the 10th March, 2017

- (1) The Managing Director, Assam Electricity Grid Corp. Ltd. (AEGCL), Bijulce Bhawan, Guwahati - 1
- (2) The Executive Director, Power Grid Corp. of India Ltd. (PGCIL), Monal Tower, Dispur, Guwahati - 6
- (3) P.S. to Hon'ble Chief Minister, Assam, Dispur, Guwahati - 6
- (4) P.S. to Hon'ble Minister of State, Assam, Power, etc., Dispur, Guwahati - 6
- (5) P.S. to the Addl. Chief Secretary to the Govt. of Assam, Revenue & Disaster Management Department, Department, Dispur, Guwahati - 6
- (6) P.S. to the Chairman, APDCL, AEGCL, APGCL, Bijulce Bhawan, Guwahati - 1
- (7) P.S. to Secretary to the Govt. of Assam, Power (Elect), etc. Department, Dispur, Guwahati-6
- (8) The Director, Assam Government Press, Bamunimaidam, Guwahati-21, Assam, for necessary action.

By order etc.,


Joint Secretary to the Govt. of Assam,
Power (Elect.) Deptt.

ANNEXURE - 3

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

132 KV DC SONABIL - TEZPUR

M/s SIMPLEX INFRASTRUCTURES LIMITED

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY(16.061KM)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length(m)	Reduced Level (m)	ADD. SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	Latitude	Longitude	
1	SONABIL GANTRY	GANTRY					0.00	81.02	29.00	14.50	-	-	-	-	-	-	2966973.72	482517.00	VILL-AXA BOSTI
					29.00														
2	AP-G/W/08	1/8	DD-3	50°51'58" (LT)		29.00	29.00	80.74	85.00	42.50	186.00	-139.00	37.00	343.00	-273.00	78.00	2964444.18	482513.61	VILL-AXA BOSTI PROPOSED AUX-X-ARM SS BOUNDARY.
					56.00														
3	AP-2/9	2/9	DD+9	40°31'25" (RT)		56.00	85.00	78.55	128.00	64.00	185.00	53.00	238.00	329.00	89.00	398.00	2964408.15	482517.17	VILL-AXA BOSTI, INTR RC 132 KV DC SONABIL TO GUDHAPUR LINE
					72.00														
4	AP-3/9	3/9	DD+9	38°15'11" (LT)		72.00	137.00	78.88	165.00	82.50	70.00	177.00	247.00	1.00	298.00	381.00	2964336.46	482509.83	VILL-AXA BOSTI
					93.00														
5	AP-4/9	4/9	DC+3	16°04'41" (LT)		93.00	230.00	78.22	415.00	287.50	-84.00	179.00	95.00	-283.00	196.00	-8.00	2964274.50	482639.02	VILL-AXA BOSTI METALLED ROAD
					321.00														
6	AP-5/9	5/9	DD+9	38°29'45" (RT)		322.00	572.00	78.00	624.00	312.00	143.00	41.00	184.00	114.00	-58.00	67.00	2964148.00	482619.00	VILL-AXA BOSTI
					381.00														
7	AP-6/9	6/9	DD+18	43°43'38" (RT)			874.00	78.09	498.00	244.00	261.00	184.00	445.00	361.00	268.00	629.00	2963832.00	482698.00	VILL-GUDAMGHAT GOSARI AP-20 REMOVE DCE TO POWER LINE CROSSING. CART TRACK, 132 KV DC LINE, SONABIL TO SHAMAGURU
					184.00														
8	AP-8/9	8/9	DD+9	50°58'35" (RT)		150.00	1068.00	77.81	473.00	236.50	2.00	198.00	208.00	-82.00	248.00	164.00	2963706.00	482836.00	VILL-GUDAMGHAT GOSARI 2NOS CART TRACK, LT LINE
					281.00														
9	AP-9/9	9/9	DD+6	44°31'11" (LT)		287.00	1347.00	78.22	588.00	294.00	89.00	144.00	237.00	39.00	145.00	184.00	2963747.00	482845.00	VILL-GUDAMGHAT GOSARI
					381.00														
10	AP-10/9	10/9	DC+0	20°42'07" (LT)		382.00	1648.00	78.65	696.00	383.00	253.00	155.00	308.00	156.00	157.00	313.00	2963558.00	482889.00	VILL-GUDAMGHAT GOSARI 2NOS LT LINE, CART TRACK
					385.00														

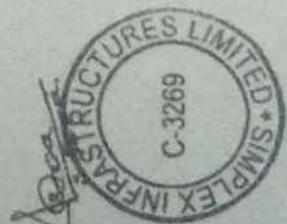


Mohan Kr. Pandit
Project Manager
Simplex Infrastructures Ltd.
TW07, PGCL, Guwahati- 781007

(एन यु बरबुजा) N.U. BARBUJA
मुख्य प्रबंधक / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - BONABIL GANTRY TO TEZPUR GANTRY(16.081KM)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length (m)	Radius Level (m)	ADJ. SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	Latitude	Longitude	
11	AP-139	139	DC+0	18°28'58" (LT)	228.00	385.00	1953.00	76.25	536.00	267.00	158.00	121.00	271.00	146.00	127.00	275.00	2962796.34	482154.25	VILL-GURUMGHEAT
12	AP-140	140	DD+0	17°40'55" (RT)	86.00	228.00	2182.00	77.46	315.00	157.50	108.00	-	108.00	102.00	-	102.00	2962871.64	482106.25	132V LINE, CART TRACK, RIVER MANSUR
13	GANTRY-J	GANTRY-J	GANTRY		156.00		2168.00	78.3	236.00	118.00	-	-	-	-	-	-	2962993.63	482068.43	VILL-BALTRA BEANGA
14	AP-139	139	DD+0	2°18'06" (RT)	216.00	236.00	2418.00	77.76	368.00	188.00	-	101.00	101.00	97.00	97.00	97.00	2963058.06	482002.65	400V MESA TO BALIPARA LINE
15		137	DA+0		216.00		3638.00	76.76	424.00	212.00	109.00	105.00	214.00	113.00	104.00	217.00	2962872.76	481983.48	VILL-BALTRA BEANGA
16	AP-140	140	DC+0	29°09'25" (LT)	258.00	424.00	2842.00	78.49	464.00	232.00	109.00	136.00	245.00	111.00	147.00	258.00	2963483.89	481892.19	WATER LOGGED AREA
17		147	DA+0		278.00		3092.00	76.93	528.00	268.00	114.00	135.00	249.00	184.00	135.00	238.00	2963732.83	481806.45	WATER LOGGED AREA, CART TRACK
18		147	DA+0		242.00		3342.00	76.91	512.00	256.00	135.00	121.00	256.00	155.00	128.00	255.00	2961963.96	481811.06	VILL-BALTRA BEANGA
19		143	DA+0				3604.00	76.95	536.00	268.00	121.00	149.00	278.00	122.00	151.00	273.00	2961722.00	481815.18	LOW LAND
20		146	DA+0		254.00		3898.00	76.59	578.00	289.00	145.00	145.00	298.00	143.00	167.00	298.00	2961428.04	481820.28	CART TRACK, LT LINE, METALLED ROAD



Mohan Kr Pandit
 Mohan Kr Pandit
 Project Manager
 Simplex Infrastructures Ltd.
 TW07, PGCIL, Guwahati-781007

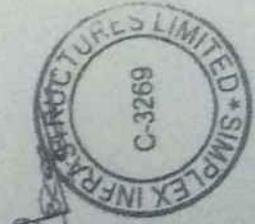
(सत प्र बरभुइया/ N.U. BARBHUIYA)
 मुख्य प्रबन्धक / Chief Manager
 Powergrid Corporation of India Ltd.
 NERPSIP, Tezpur, Sonitpur, Assam

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY(16.081KKH)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length (m)	Reduced Level (m)	ADJ. SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	Latitude	Longitude	
21	AP-15@	15@	DD+0	7°46'36" (RT)	284.00	154.00	4182.00	76.16	367.00	183.50	139.00	137.00	137.00	2961743.53	481825.85			VILL-SILGHAGARI GAUN	
22	GANTRY-J	GANTRY-J	GANTRY		83.00		4265.00	76.35	217.00	168.50	-	-	-	2961668.22	481815.12			VILL-SILGHAGARI GAUN	
23	AP-16@	16@	DD+0	7°07'11" (RT)	217.00	217.00	4398.00	76.44	341.00	170.50	-	118.00	118.00	2960926.79	481798.21			VILL-SILGHAGARI GAUN	
24	AP-17@	17@	DC+0	24°12'04" (RT)	207.00	207.00	4604.00	75.72	582.00	251.00	97.00	147.00	244.00	2960724.67	481740.10			METALLED ROAD, POND	
25		17/1	DA+0		295.00		4901.00	75.81	564.00	282.00	148.00	136.00	284.00	2960489.00	481576.00			NALA	
26	AP-18@	18@	DC+0	27°08'33" (LT)	269.00	564.00	5176.00	75.53	589.00	294.50	133.00	143.00	276.00	2958276.00	481409.00			JBI BRICK FACTORY BOUNDARY, CART TRACK, 11 KV LINE	
27		18/1	DA+0		328.00		5496.00	75.43	634.00	317.00	177.00	174.00	351.00	2958955.65	481352.29			DITCH	
28	AP-19@	19@	DD+0	10°54'22" (LT)	314.00	634.00	5804.00	75.58	622.00	311.00	148.00	158.00	296.00	2959452.89	481298.28			11 KV LINE, METALLED ROAD	
29		19/1	DA+0		308.00		6112.00	74.90	618.00	309.00	150.00	153.00	303.00	2959164.20	481407.75			BRICK FACTORY	
30					318.00													TEA GARDEN, BRICK FACTORY, JRT	

M. Mohan

Mohan Kr. Pandit
Project Manager
Simplex Infrastructures Ltd.
TW07, PGCIL, Guwahati- 781007



(স্বা প্ বারম্ভূত্বা ন.উ. বারম্ভূত্বা)
মুখ্য প্রকল্পক / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY(16.081KM)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length(m)	Reduced Level (m)	ADJ. SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	Latitude	Longitude	
30		192	D4+0		320.00		6422.00	75.20	630.00	315.00	157.00	139.00	296.00	158.00	119.00	277.00	2959074.44	481517.92	
31		193	D4+3		278.00		6742.00	75.95	590.00	299.00	181.00	142.00	323.00	201.00	144.00	345.00	2958775.32	481631.65	SEF BRICK FACTORY
32		194	D4+3		302.00		7020.00	75.54	500.00	290.00	136.00	175.00	311.00	134.00	190.00	332.00	2958515.47	481730.45	POND
33		195	D4+0		260.00		7322.00	74.51	562.00	281.00	127.00	131.00	258.00	104.00	131.00	235.00	2958233.19	481837.79	
34		196	D4+0		243.00		7582.00	74.41	503.00	251.50	129.00	131.00	260.00	129.00	139.00	260.00	2957990.00	481930.00	POND, DITCH, RIVER
35	A.P-200	200	DC+0	17°25'21" (RT)	300.00	2021.00	7825.00	73.19	551.00	275.50	111.00	151.00	363.00	184.00	149.00	251.00	2957763.63	482016.32	VILL-KAILAPATA (KAILAMARD)
36		201	D4+0		300.00		8133.00	72.63	600.00	304.00	157.00	150.00	307.00	159.00	149.00	300.00	2957456.17	482084.57	RIVER, LOW LAND AREA
37		202	D4+0		306.00		8433.00	72.71	606.00	303.00	150.00	156.00	304.00	151.00	155.00	300.00	2957156.69	482052.30	3 NOS RIVER, LOW LAND AREA
38	A.P-210	210	DB+0	13°09'47" (LT)	914.00	914.00	8730.00	72.53	628.00	313.00	152.00	162.00	314.00	151.00	165.00	316.00	2956850.55	482070.50	LOW LAND AREA IMTR RC
39		211	D4+0		320.00		9059.00	72.11	640.00	320.00	158.00	143.00	301.00	155.00	127.00	202.00	2956544.06	482102.45	RIVER, LOW LAND AREA



Mohan Kr. Pandit

Mohan Kr. Pandit
Project Manager
Simplex Infrastructures Ltd.
TW07, PGCIL, Guwahati- 781007

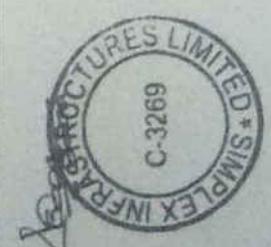
[Signature]

(एन यु बरभुईया) N.U. BARBHUIYA
मुख्य प्रबंधक / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIF, Tezpur, Sonitpur, Assam

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY(16.081KM)

SL. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length(m)	Reduced Level (m)	ADJ. SPAN (m)	Wind Span (m)		Hot Weight Spans (m)		Cold Weight Spans (m)		UTM COORDINATE		REMARKS	
										Left	Right	Left	Right	Left	Right	Latitude	Longitude		
40	AP-229	22/0	D4+3	5°16'18" RT	326.00	648.00	9279.00	72.19	561.00	288.50	177.00	138.00	315.00	193.00	154.00	547.00	2956217.82	482254.33	LOW LAND AREA VILL-BEALUX JIRABAN, 1MTR RC
41		22/1	D4+0		241.00		9620.00	72.32	539.00	249.50	183.00	152.00	335.00	87.00	156.00	341.00	2956897.27	482252.18	POND, METALLED ROAD 1 V LANE, DC LINE 1.5 MTR RC
42		22/2	D4+0		288.00		9908.00	71.76	578.00	289.00	146.00	146.00	286.00	142.00	148.00	382.00	2955799.54	482250.17	1.5 MTR RC
43		22/3	D4+0		297.00		10205.00	71.77	577.00	288.50	148.00	158.00	296.00	148.00	151.00	291.00	2955634.80	482406.74	1.5 MTR RC
44		22/4	D4+0		296.00		10495.00	71.58	588.00	296.50	147.00	158.00	297.00	146.00	152.00	296.00	2955145.70	482475.61	1.5 MTR RC
45	AP-230	23/0	DC+0	38°41'54" RT	254.00	1412.00	10791.00	71.28	558.00	275.00	146.00	133.00	269.00	144.00	119.00	263.00	2954823.21	482384.57	VILL-BEALUX JIRABAN, 1.5 MTR RC METALLED ROAD
46		23/1	D4+0		310.00		11065.00	71.87	564.00	282.00	131.00	156.00	287.00	135.00	157.00	292.00	2954409.85	482458.57	1.5 MTR RC POND
47		23/2	D4+0		303.00		11355.00	71.22	613.00	306.50	154.00	152.00	306.00	153.00	152.00	303.00	2954314.85	482365.82	2.0 MTR RC POND
48		23/3	D4+0		213.00		11668.00	71.16	516.00	258.00	151.00	168.00	259.00	151.00	188.00	259.00	2954020.16	482275.67	2.0 MTR RC

M.S. mi
 Mohan Kr. Pandit
 Project Manager
 Simplex Infrastructures Ltd.
 TW07, PGCIL, Guwahati- 781007



(एन जू अरुइयुव N.U. BARBHUIYA)
 मुख्य प्रबन्धक / Chief Manager
 Powergrid Corporation of India Ltd.
 NERPSIP, Tezpur, Sonitpur, Assam

132 KV D/C SONABIL - TEZPUR

M/s SIMPLEX INFRASTRUCTURES LIMITED

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY (16.051 KM)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length (m)	Reduced Level (m)	ADJ. SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	Latitude	Longitude	
49		234	DA+0		256.00		11871.00	71.04	469.00	214.50	105.00	119.00	224.00	105.00	111.00	216.00	2953821.69	482211.44	2.0 MTR RC
50		235	DA+0				12127.00	74.26	486.00	343.00	137.00	120.00	257.00	145.00	125.00	278.00	2953546.88	48225.27	RIVER
51	AP-24/0	240	DC+0	27°35'58"LT	343.00	1566.00	12357.00	73.61	572.00	266.00	110.00	160.00	278.00	165.00	150.00	255.00	2953517.63	48286.74	CART TRACK LT LINE, SUGAR CANE FILLER BAMBO
52	AP-25/0	250	DC+3	21°19'16"LT		342.00	12699.00	72.69	614.00	317.00	182.00	168.00	350.00	192.00	187.00	379.00	2953019.86	482126.35	VILL-AMOLA PAM
53		251	DA+0		292.00		12991.00	72.24	610.00	315.00	124.00	155.00	279.00	165.00	142.00	247.00	2952798.83	482276.96	SUGAR CANE FILLED BAMBO
54	AP-26/0	260	DC+3	18°28'33"LT	338.00	638.00	13329.00	71.81	662.00	331.00	183.00	165.00	348.00	196.00	167.00	363.00	2952482.44	482453.82	POND, METALLED ROAD, LIET LINE, LT LINE
55		261	DA+3		324.00		13653.00	71.33	640.00	328.00	159.00	169.00	328.00	157.00	179.00	356.00	2952260.58	482716.71	VILL-AMOLA PAM
56	AP-27/0	270	DB+0	00°28'07"LT	316.00	648.00	13969.00	72.43	541.00	278.50	147.00	78.00	217.00	137.00	31.00	168.00	2952041.77	482977.97	CART TRACE
57		271	DA+5		225.00		14194.00	71.68	543.00	271.50	155.00	128.00	285.00	194.00	198.00	293.00	2951953.81	483127.89	VILL-BARAGUNI
58		272	DA+3		318.00		14512.00	71.06	648.00	320.00	138.00	164.00	302.00	138.00	166.00	283.00	2951764.59	483395.97	66 KV LINE 3 NOS LT LINE, METALLED ROAD, POND, CART TRACE 13 BY LINE

Mohan Kr. Pandit
Mohan Kr. Pandit
Project Manager

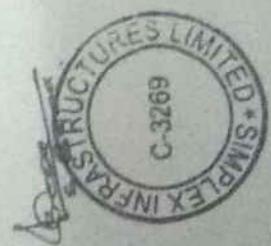
Simplex Infrastructures Ltd.
TW07, PGCL, Guwahati- 781007



(M/s) SIMPLEX INFRASTRUCTURES LIMITED
Project Manager / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Saritpur

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SOMABIL GANTRY TO TEZPUR GANTRY (R/S/K/K)

Sl. No.	AP No.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length (m)	Reduced Level (m)	ADL SPAN (m)	Wind Span (m)	Rise Weight Spans (m)			Fall Weight Spans (m)			UTM COORDINATE	REMARKS		
											Left	Right	Total	Left	Right	Total			Latitude	Longitude
					222.00															
57	AP-28/0	28/0	D0-2	39°12'57"E	282.00	282.00	14824.00	78.59	671.00	385.00	273.00	245.00	258.00	258.00	258.00	258.00	245.00	258.00	42046.87	VILL-AMGALABAR
58		28/1	D1-4		282.00		15122.00	78.31	503.00	284.50	225.00	258.00	278.00	278.00	255.00	255.00	255.00	255.00	42746.04	POND
59		28/2	D0-4	33°19'48"E	282.00	564.00	15406.00	77.00	493.00	244.50	245.00	76.00	221.00	245.00	245.00	245.00	245.00	245.00	43209.33	METALLED ROAD, 2 HOSE POND
60		28/3	D0-4		282.00		15688.00	77.36	443.00	221.50	122.00	123.00	245.00	157.00	189.00	266.00	266.00	266.00	43771.20	METALLED ROAD
61		28/4	D0-4	46°11'34"E	255.00		15943.00	68.75	392.00	196.00	122.00	141.00	263.00	226.00	198.00	324.00	324.00	324.00	443705.30	VILL-2.NO DOLABAR
62		28/5	D0-4	28°55'19"E	257.00		16200.00	68.40	355.00	122.50	16.00	-18.00	-3.00	-41.00	-73.00	-114.00	-114.00	-114.00	448377.52	VILL-2.NO DOLABAR
63		28/6			78.00															BOUNDARY



Mohan Kr. Pandit
Project Manager
Simplex Infrastructures Ltd.
TW07, PGCIL, Guwahati- 781007

(N.U. BARBHUIYA / N.U. BARBHUIYA)
मुख्य प्रबंधक / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - SONABIL GANTRY TO TEZPUR GANTRY(16.081 KM)

Sl. No.	AP NO.	LOCATION NO.	TOWER TYPE	Angle of Deviation	Span Length (m)	Section Length (m)	Cumulative Length(m)	Reduced Level (m)	ADJ SPAN (m)	Wind Span (m)	Hot Weight Span (m)			Cold Weight Span (m)			UTM COORDINATE		REMARKS
											Left	Right	Total	Left	Right	Total	latitude	Longitude	
65	TEZPUR GANTRY	GANTRY		0°-00'00"	78.00	16682.00	71.89	78.00	39.00	97.00	97.00	151.00	151.00	2908393.78	483778.25			VILL-2 NO DOLLARURI	
TOTAL LENGTH-16.081 KM																			

TOWER SUMMARY

SR. No.	+0	+3	+6	+9	+18	+25	Total
GANTRY	2	0	0	0	0	0	2
DA	24	0	1	0	0	0	31
DB	2	1	0	0	0	0	3
DC	8	3	0	0	0	0	11
DD	9	2	1	3	1	0	16
Total	46	12	2	3	1	0	63

SIMPLEX INFRASTRUCTURES LIMITED		POWER GRID CORPORATION OF INDIA LTD.	
SURVEYED BY <i>S. P. Bera</i> S.P. Bera	CHECKED BY <i>S. P. Bera</i> S. P. Bera	SUBMITTED BY <i>M. S. Panigrahi</i> M. S. Panigrahi	RECOMMENDED BY <i>[Signature]</i> [Signature]
		APPROVED BY <i>[Signature]</i> [Signature]	

(एस.के. दुता / S.K. DUTTA)
वरिष्ठ उप महा प्रबंधक/Sr. Dy. Gen. Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam
NERPSIP, TEZPUR

Mohan Kr. Pandit
 Project Manager
 Simplex Infrastructures Ltd.
 TW07, PGCIL, Guwahati- 781007



POLE SCHEDULE												
33kV S/C Line From Tezpur GSS To Tezpur University												
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
LOA Ref:No: LCC-CS/94-NER/REW-30791/G10/CA-1/7026-Supply												
PACKAGE: ASM-DMS-01												
2.CC-CS/94-NER/REW-30791/G10/CA-II/7027-Services												
Sl. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Single Pole Length	Cumm. Single Pole Length	Co-Ordinates Latitude	Co-Ordinates Longitude	Description of Land	Crossing Details	Village Name	Remarks
0									Sub-station boundary			
1	AP-0	AP-0	Four Pole	0°0'00"	44	44	26.673676	92.835694	Sub-station boundary			
2		Loc-0/1	Single Pole	0°31'00"	35	79	26.673664	92.8356144	Sub-station boundary			
3	AP-1	AP-1	Four Pole	74°86'58"	46	125	26.673559	92.835568	Sub-station boundary			
4		Loc-1/1	Single Pole	2°78'61"	50	175	26.67401	92.83549	Sub-station boundary			
5		Loc-1/2	Single Pole	4°67'93"	48	223	26.67442	92.83533	Sub-station boundary			
6	AP-2	AP-2	Single Pole	24°84'58"	30	253	26.67467	92.835206	Paddy Field - Pvt.			
7		Loc-2/1	Single Pole	6°09'28"	31	284	26.674851	92.834975	Paddy Field - Pvt.			
8		Loc-2/2	Single Pole	0°07'71"	50	334	26.675109	92.834565	Paddy Field - Pvt.			
9		Loc-2/3	Single Pole	6°30'07"	50	384	26.675369	92.834153	Paddy Field - Pvt.			
10		Loc-2/4	Single Pole	2°63'60"	49	434	26.675665	92.833779	Paddy Field - Pvt.			
11		Loc-2/5	Single Pole	3°38'39"	38	483	26.675974	92.833423	Paddy Field - Pvt.			
12		Loc-2/6	Single Pole	0°55'27"	38	521	26.676228	92.833163	Paddy Field - Pvt.			
13	AP-3	AP-3	Four Pole	91°91'31"	48	559	26.676448	92.83291	Paddy Field - Pvt.	Under LT Line		
14		Loc-3/1	Double Pole	7°18'36"	51	607	26.676618	92.83256	Paddy Field - Pvt.			
15		Loc-3/2	Single Pole	8°32'23"	42	658	26.675909	92.832152	Paddy Field - Pvt.			
16	AP-4	AP-4	Double Pole	17°9'774"	43	700	26.67573	92.83178	Paddy Field - Pvt.	Under LT Line		
17		Loc-4/1	Double Pole	1°13'42"	84	743	26.67566	92.83135	Paddy Field - Pvt.			
18		Loc-4/2	Double Pole	2°59'55"	51	827	26.67554	92.83052	Paddy Field - Pvt.			
19		Loc-4/3	Single Pole	0°57'59"	51	878	26.675487	92.830007	Paddy Field - Pvt.	Under LT Line		
20		Loc-4/4	Single Pole	2°15'49"	51	929	26.67543	92.8295	Paddy Field - Pvt.			
21	AP-5	AP-5	Double Pole	12°10'43"	45	980	26.67539	92.82899	Paddy Field - Pvt.			
22		Loc-5/1	Single Pole	4°05'08"	46	1025	26.67544	92.82854	Paddy Field - Pvt.			
23		Loc-5/2	Double Pole	6°43'72"	46	1071	26.675462	92.828076	Paddy Field - Pvt.			
24	AP-6	AP-6	Double Pole	14°63'16"	117	1117	26.67553	92.82762	Paddy Field - Pvt.			

POLE SCHEDULE												
33kV S/C Line From Tezpur GSS To Tezpur University												
CLIENT: POWR GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
LOA Ref.No: I.CC-CS/94-NER/REW-30791/G10/CA-I/7026-Supply												
2.CC-CS/94-NER/REW-30791/G10/CA-II/7027-Services												
SL. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Single Pole Length	Num. Single Pole	Co-Ordinates	Description of Land	Crossing Details	Village Name	Remarks	
							Latitude Longitude					
25		Loc-6/1	Single Pole	3°10'61"	49	0	26.67549 92.827124	Paddy Field - Pvt				
26		Loc-6/2	Single Pole	2°58'34"	50	0	26.675474 92.826624	Paddy Field - Pvt				
27		Loc-6/3	Single Pole	3°26'61"	50	0	26.675438 92.826127	Paddy Field - Pvt				
28		Loc-6/4	Single Pole	1°62'39"	50	0	26.675376 92.825627	Paddy Field - Pvt				
29		Loc-6/5	Single Pole	4°68'86"	41	0	26.675336 92.82522	Paddy Field - Pvt				
30	AP-7	AP-7	Double Pole	19°44'30"	39	0	26.675269 92.824833	Paddy Field - Pvt				
31	AP-8	AP-8	Double Pole	13°45'74"	45	0	26.675065 92.824444	Paddy Field - Pvt				
32		Loc-8/1	Single Pole	19°54'83"	50	0	26.674934 92.823963	Paddy Field - Pvt				
33		Loc-8/2	Single Pole	0°51'71"	44	0	26.674952 92.823919	Paddy Field - Pvt				
34		Loc-8/3	Single Pole	1°11'97"	47	0	26.674975 92.823046	Paddy Field - Pvt				
35		Loc-8/4	Single Pole	0°59'03"	51	0	26.674991 92.822532	Paddy Field - Pvt				
36		Loc-8/5	Single Pole	0°32'10"	51	0	26.675015 92.822017	Paddy Field - Pvt				
37		Loc-8/6	Single Pole	0°15'45"	50	0	26.675036 92.821512	Paddy Field - Pvt				
38		Loc-8/7	Double Pole	0°07'87"	49	0	26.675058 92.821012	Paddy Field - Pvt				
39		Loc-8/8	Single Pole	0°03'96"	48	0	26.675079 92.820521	Paddy Field - Pvt				
40		Loc-8/9	Single Pole	0°40'64"	48	0	26.6751 92.820037	Paddy Field - Pvt				
41		Loc-8/10	Single Pole	0°01'97"	48	0	26.675118 92.819551	Paddy Field - Pvt				
42		Loc-8/11	Single Pole	0°31'61"	47	0	26.675136 92.819069	Paddy Field - Pvt				
43		Loc-8/12	Single Pole	0°32'87"	48	0	26.675156 92.818596	Paddy Field - Pvt				
44		Loc-8/13	Single Pole	4°08'32"	55	0	26.675179 92.818111	Paddy Field - Pvt				
45	AP-9	AP-9	Four Pole	67°40'14"	48	0	26.67517 92.817559	Paddy Field - Pvt				
46		Loc-9/1	Single Pole	4°34'93"	49	0	26.675168 92.817364	Paddy Field - Pvt				
47		Loc-9/2	Single Pole	0°06'63"	51	0	26.675198 92.817132	Paddy Field - Pvt				
48		Loc-9/3	Single Pole	1°00'14"	51	0	26.675198 92.816891	Paddy Field - Pvt				

33kV S/C Line From Tezpur GSS To Tezpur University												
POLE SCHEDULE												
CLIENT: POWR GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
LOA Ref.No: I.CC-CS/94-NER/REW-30791/G10/CA-I/7026 - Supply												
2.CC-CS/94-NER/REW-30791/G10/CA-II/7027-Services												
SL. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Single Pole Length	Cumm. Single Pole Length	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
							Latitude	Longitude				
49		Loc-9/4	Single Pole	0°05'94"	50	2326	26.676764	92.816641	Paddy Field - Pvt			
50	AP-10	AP-10	Double Pole	50°07'43"	49	2376	26.677157	92.816396	Along the road - Pvt			
51		Loc-10/1	Single Pole	27°34'24"	47	2425	26.677757	92.816573	Along the road - Pvt			
52		Loc-10/2	Single Pole	12°02'17"	47	2472	26.677993	92.816552	Along the road - Pvt			
53		Loc-10/3	Single Pole	0°11'08"	48	2519	26.678393	92.816371	Along the road - Pvt			
54		Loc-10/4	Single Pole	9°59'89"	55	2567	26.678801	92.816222	Along the road - Pvt			
55	AP-11	AP-11	Four Pole	89°68'13"	45	2622	26.679291	92.81614	Along the road - Pvt			
56		Loc-11/1	Single Pole	0°75'45"	49	2667	26.679235	92.815693	Crop Land - Pvt			
57		Loc-11/2	Single Pole	2°53'74"	51	2716	26.679168	92.815205	Crop Land - Pvt			
58		Loc-11/3	Four Pole	90°00'00"		2767	26.679122	92.814698	Crop Land - Pvt			

POLE SCHEDULE												
33kV S/C DEPOTA TO LGM HOSPITAL LINE												
CLIENT: POWR GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
PACKAGE: ASM-DMS-01												
LOA Ref:No: I.CC-CS/94-NER/REW-30791/G10/CA-I/7026-Supply												
2.CC-CS/94-NER/REW-30791/G10/CA-II/7027-Services												
SL. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates Latitude	Co-Ordinates Longitude	Description of Land	Crossing Details	Village Name	Remarks
1	AP-1	AP-1	New DP (SP-64)		22		26.67001	92.7504	Along the Road - Govt.		Depota	
2		Loc - 3/1	New SP (SP-64)	4°28'42"	31	22	26.66984	92.75048	Along the Road - Govt.		Depota	
3		Loc - 3/2	New DP (SP-64)	1°77'60"	33	53	26.66956	92.75062	Along the Road - Govt.		Depota	
4	AP-2		New DP (SP-64)	39°38'19"	33	86	26.6693	92.75075	Along the Road - Govt.	Over 132kV Line	Depota	
5	AP-3		New DP (SP-64)	42°36'72"	33	119	26.66916	92.75098	Along the Road - Govt.	Road	Depota	
6		Loc - 3/1	New SP (SP-64)	7°08'64"	26	0	26.66894	92.75107	Along the Road - Govt.	Under LT Line	Depota	
7		Loc - 3/2	New SP (SP-64)	0°03'15"	50	0	26.66854	92.7513	Along the Road - Govt.		Depota	
8		Loc - 3/3	New SP (SP-64)	0°14'52"	42	0	26.6682	92.75149	Along the Road - Govt.		Depota	
9		Loc - 3/4	New SP (SP-64)	8°35'01"	50	0	26.66781	92.75171	Along the Road - Govt.		Depota	
10		Loc - 3/5	New SP (SP-64)	5°66'29"	45	0	26.66742	92.7519	Along the Road - Govt.		Depota	
11		Loc - 3/6	New SP (SP-64)	1°10'20"	50	0	26.66701	92.75211	Along the Road - Govt.		Depota	
12		Loc - 3/7	New DP (SP-64)	0°04'03"	48	0	26.66662	92.75232	Along the Road - Govt.		Depota	
13		Loc - 3/8	New SP (SP-64)	0°02'57"	39	0	26.6663	92.75248	Along the Road - Govt.		Depota	
14		Loc - 3/9	New SP (SP-64)	2°51'96"	48	0	26.66591	92.75267	Along the Road - Govt.		Depota	
15		Loc - 3/10	New SP (SP-64)	0°07'91"	56	0	26.66544	92.75289	Along the Road - Govt.		Depota	
16		Loc - 3/11	New SP (SP-64)	1°97'16"	51	0	26.66501	92.75309	Along the Road - Govt.		Depota	
17		Loc - 3/12	New SP (SP-76)	4°79'43"	45	0	26.66465	92.75329	Along the Road - Govt.		Depota	Required SP-76 Pole
18		Loc - 3/13	New SP (SP-76)	5°36'71"	54	0	26.66421	92.75353	Along the Road - Govt.		Depota	Required SP-76 Pole
19		Loc - 3/14	Exst. TP (SP-79)	13°63'10"	45	0	26.66383	92.75369	Along the Road - Govt.		Depota	Composite with 11kV Feeder
20		Loc - 3/15	Exst. SP (SP-79)	11°56'71"	32	0	26.66185	92.75461	Along the Road - Govt.		Depota	Composite with 11kV Feeder
21		Loc - 3/16	Exst. SP (SP-79)	0°77'49"	41	0	26.66185	92.75461	Along the Road - Govt.		Depota	Composite with 11kV Feeder
22		Loc - 3/17	Exst. SP (SP-79)	3°33'93"	53	0	26.66185	92.75461	Along the Road - Govt.		Depota	Composite with 11kV Feeder
23		Loc - 3/18	Exst. DP (SP-79)	1°62'47"	64	0	26.66185	92.75461	Along the Road - Govt.		Depota	Composite with 11kV Feeder
24		Loc - 3/19	Exst. SP (SP-79)	5°63'56"	50	0	26.66185	92.75461	Along the Road - Govt.		Depota	Composite with 11kV Feeder
25		Loc - 3/20	New DP (SP-76)	10°62'55"	50	0	26.66141	92.75472	Along the Road - Govt.	Under 11kV Line	Depota	Required SP-76 Pole
					29	0						

POLE SCHEDULE												
33KV S/C DEPOTA TO LGM HOSPITAL LINE												
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
PACKAGE: ASM-DMS-01												
LOA Ref.No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-I/7026 - Supply												
2.CC-CS/94-NER/REW-3079/1/G10/CA-II/7027- Services												
SL. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
							Latitude	Longitude				
26	AP-4	AP-4	New SP (SP-76)	71°75'85"	24	1087	26.66115	92.75473	Along the NH - Govt.		Depota	Required SP-76 Pole
27		Loc - 4/1	New SP (SP-64)	12°95'36"	36	1111	26.66109	92.75496	Along the NH - Govt.		Tarajan Kumargaon	
28		Loc - 4/2	New SP (SP-64)	4°19'47"	46	1147	26.66093	92.75528	Along the NH - Govt.		Tarajan Kumargaon	
29		Loc - 4/3	New DP (SP-64)	8°19'99"	49	1193	26.6607	92.75567	Along the NH - Govt.		Tarajan Kumargaon	
30		Loc - 4/4	New SP (SP-76)	9°90'57"	49	1242	26.66054	92.75614	Along the NH - Govt.		Tarajan Kumargaon	
31		Loc - 4/5	New SP (SP-76)	5°45'44"	49	1291	26.66029	92.75653	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
32		Loc - 4/6	New SP (SP-76)	3°43'46"	50	1341	26.66004	92.75699	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
33		Loc - 4/7	New SP (SP-76)	4°50'61"	47	1388	26.65989	92.7574	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
34		Loc - 4/8	New SP (SP-76)	0°77'27"	48	1436	26.65974	92.75771	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
35		Loc - 4/9	New SP (SP-76)	1°20'53"	48	1485	26.65952	92.75813	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
36		Loc - 4/10	New DP (SP-76)	2°33'55"	48	1533	26.65932	92.75856	Along the NH - Govt.		Tarajan Kumargaon	Required SP-76 Pole
37	AP-5	AP-5	New SP (SP-64)	98°19'96"	27	1560	26.65932	92.75856	Along the NH - Govt.		Tarajan Kumargaon	
38		Loc - 5/1	New SP (SP-64)	4°09'30"	36	1580	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
39		Loc - 5/2	New SP (SP-64)	4°57'32"	37	1616	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
40		Loc - 5/3	New SP (SP-64)	3°96'19"	18	1653	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
41		Loc - 5/4	New SP (SP-64)	1°58'92"	19	1671	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
42	AP-6	AP-6	New SP (SP-64)	82°03'86"	19	1690	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
43		Loc - 6/1	New SP (SP-64)	0°02'73"	36	1709	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
44	AP-7	AP-7	New FP (SP-64)	74°91'65"	36	1745	26.65932	92.75856	Along the road - Pvt.		Tarajan Kumargaon	
45		Loc - 7/1	New SP (SP-64)	1°63'64"	39	1781	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
46		Loc - 7/2	New SP (SP-64)	1°58'72"	35	1820	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
47		Loc - 7/3	New SP (SP-64)	0°68'79"	38	1855	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
48		Loc - 7/4	New SP (SP-64)	5°55'06"	37	1893	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
49	AP-8	AP-8	New DP (SP-64)	37°56'68"	36	1930	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
50		Loc - 8/1	New SP (SP-64)	5°63'76"	1966	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon		

POLE SCHEDULE												
33kV S/C DEPOTA TO LGM HOSPITAL LINE												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
PACKAGE: ASM-DMS-01												
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED												
LOA Ref.No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-1/7026-Supply												
2.CC-CS/94-NER/REW-3079/1/G10/CA-1/7027-Services												
Sl. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
							Latitude	Longitude				
51		Loc - 8/2	New SP (SP-64)	11°09'13"	39	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
52	AP-9	AP-9	New DP (SP-64)	26°43'50"	36	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
53		Loc - 9/1	New SP (SP-64)	0°94'05"	41	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
54		Loc - 9/2	New SP (SP-64)	1°57'11"	38	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
55		Loc - 9/3	New SP (SP-64)	0°59'12"	47	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
56		Loc - 9/4	New SP (SP-64)	0°35'67"	39	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
57	AP-10	AP-10	New DP (SP-64)	22°68'97"	37	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
58		Loc - 10/1	New SP (SP-64)	6°02'87"	34	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
59		Loc - 10/2	New SP (SP-64)	1°79'01"	37	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
60		Loc - 10/3	New SP (SP-64)	2°04'96"	34	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
61		Loc - 10/4	New SP (SP-64)	2°35'95"	36	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
62		Loc - 10/5	New DP (SP-64)	0°16'21"	39	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
63		Loc - 10/6	New SP (SP-64)	8°06'49"	34	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
64		Loc - 10/7	New SP (SP-64)	0°73'80"	38	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
65		Loc - 10/8	New SP (SP-64)	1°94'59"	33	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
66		Loc - 10/9	New SP (SP-64)	0°45'44"	38	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
67		Loc - 10/10	New DP (SP-64)	3°59'83"	37	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
68		Loc - 10/11	New SP (SP-64)	0°50'10"	2640	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
69		Loc - 10/12	New SP (SP-64)	2°75'73"	34	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
70		Loc - 10/13	New SP (SP-64)	2°63'45"	36	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
71		Loc - 10/14	New SP (SP-64)	1°32'04"	36	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
72		Loc - 10/15	New DP (SP-64)	1°83'55"	2781	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
73		Loc - 10/16	New SP (SP-64)	0°05'55"	2818	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
74	AP-11	AP-11	New DP (SP-64)	36°19'11"	37	0	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
					38	0						

POLE SCHEDULE												
33KV S/C DEPOTA TO LGM HOSPITAL LINE												
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
PACKAGE: ASM-DMS-01												
LOA Ref.No: 1.CC-CS/94-NER/REW-3079/I/G10/CA-I/7026-Supply												
2.CC-CS/94-NER/REW-3079/I/G10/CA-II/7027-Services												
SL. No.	Angle Point	Loc. No	Pole Type	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
							Latitude	Longitude				
75		Loc - 11/1	New SP (SP-64)	8°65'24"	36	2893	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
76		Loc - 11/2	New SP (SP-64)	17°64'23"	35	2929	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
77		Loc - 11/3	New SP (SP-64)	5°23'96"	36	2964	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
78		Loc - 11/4	New DP (SP-64)	15°96'49"	36	3000	26.65932	92.75856	Paddy Field - Pvt.		Tarajan Kumargaon	
79		Loc - 11/5	New SP (SP-64)	1°91'95"	24	3036	26.65932	92.75856	Tea Garden - Pvt.		Tarajan Kumargaon	
80		Loc - 11/6	New SP (SP-64)	0°24'03"	21	3060	26.65932	92.75856	Tea Garden - Pvt.		Tarajan Kumargaon	
81	AP-12	AP-12	New SP (SP-64)	75°20'26"	21	3081	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
82		Loc - 12/1	New SP (SP-64)	0°20'76"	30	3102	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
83		Loc - 12/2	New SP (SP-64)	1°15'37"	30	3132	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
84		Loc - 12/3	New SP (SP-64)	1°07'13"	24	3162	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
85	AP-13	AP-13	New SP (SP-64)	85°38'78"	20	3186	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
86		Loc - 13/1	New DP (SP-64)	0°68'44"	33	3206	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
87		Loc - 13/2	New SP (SP-64)	3°50'77"	36	3239	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
88		Loc - 13/3	New SP (SP-64)	0°47'68"	34	3275	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
89		Loc - 13/4	New SP (SP-64)	0°47'49"	39	3309	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
90		Loc - 13/5	New SP (SP-64)	1°96'65"	38	3348	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
91		Loc - 13/6	New SP (SP-64)	0°55'27"	33	3386	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	
92	AP-14	AP-14	New DP (SP-76)	34°50'92"	31	3419	26.65932	92.75856	Along the Road - Govt.		Tarajan Kumargaon	Required SP-76 Pole
93	AP-15	AP-15	New DP (SP-76)	44°22'28"	65	3450	26.65932	92.75856	Along the Road - Govt.	Under 11kV Line	Tarajan Kumargaon	Required SP-76 Pole
94	AP-16	AP-16	New FP (SP-64)	76°25'06"	10	3515	26.65815	92.76091	Paddy Field - Pvt.		Tarajan Kumargaon	
			Gantry			3525			Sub-station		Tarajan Kumargaon	

33KV S/C Line Tezpur New 132/33 kv S/S To Dolabari 33/11kv S/S(Ex.)												
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED												
CONTRACTOR: NECCON POWER & INFRA LIMITED												
PACKAGE: ASM- ASM-DMS-01												
Sl. No.	Angle Point	Loc. No	Pole Type	Exn.	Angle of Deviation	Span Length	Span (m)	Co-Ordinates	Description of Land	Crossing Details	Village Name	Remarks
								Latitude Longitude				
1	0	0	Four Pole			45		26.673520 92.836610	S/S Boundary		Purai Alimur	
2		Loc-01	Single Pole		1°08'09"	44	45	26.673520 92.836160	S/S Boundary		Purai Alimur	
3	AP-1	AP-1	Four Pole		114°00'08"	50	89	26.673510 92.835780	S/S Boundary		Purai Alimur	
4		Loc-1/1	Single Pole		0°02'06"	50	0	26.673120 92.835990	Paddy Field-Pvt.		Purai Alimur	
5		Loc-1/2	Single Pole		1°08'09"	50	189	26.672710 92.836220	Paddy Field-Pvt.		Purai Alimur	
6		Loc-1/3	Single Pole		6°09'01"	50	239	26.672300 92.836470	Paddy Field-Pvt.		Purai Alimur	
7		Loc-1/4	Single Pole		3°07'84"	50	289	26.671890 92.836660	Paddy Field-Pvt.		Purai Alimur	
8		Loc-1/5	Single Pole		3°12'23"	50	339	26.671490 92.836880	Paddy Field-Pvt.		Purai Alimur	
9	AP-2	AP-2	Double Pole		11°27'69"	50	389	26.671070 92.837080	Paddy Field-Pvt.		Purai Alimur	
10		Loc-2/1	Single Pole		1°09'48"	47	439	26.670637 92.837181	Wet Land-Pvt.		Purai Alimur	
11		Loc-2/2	Single Pole		0°00'45"	45	486	26.670220 92.837269	Wet Land-Pvt.		Purai Alimur	
12		Loc-2/3	Single Pole		0°18'28"	50	531	26.669832 92.837358	Wet Land-Pvt.		Purai Alimur	
13	AP-3	AP-3	Double Pole		37°7'481"	58	581	26.669380 92.837460	Paddy Field-Pvt.		Purai Alimur	
14		Loc-3/1	Double Pole	2.50m	10°47'10"	68	639	26.669040 92.837900	Paddy Field-Pvt.	NH & 11KV With LT Line	Purai Alimur	SP-76 Pole Required Guarding Required
15		Loc-3/2	Double Pole	2.50m	10°21'11"	50	707	26.668560 92.838330	Paddy Field-Pvt.		Panchmile	SP-76 Pole Required (Composite Pole With 11KV)
16		Loc-3/3	Single Pole		1°85'88"	49	757	26.668266 92.838707	Paddy Field-Pvt.		Panchmile	
17	AP-4	AP-4	Double Pole		49°53'80"	50	806	26.667963 92.839071	Tea Garden-Pvt.		Panchmile	
18		Loc-4/1	Single Pole		0°00'56"	50	856	26.667514 92.839049	Paddy Field-Pvt.		Panchmile	
19		Loc-4/2	Single Pole		0°32'94"	50	906	26.667066 92.839027	Paddy Field-Pvt.		Panchmile	
20		Loc-4/3	Single Pole		0°11'35"	50	956	26.666616 92.839002	Paddy Field-Pvt.		Panchmile	
21	AP-5	AP-5	Double Pole		41°32'11"	47	1006	26.666166 92.838978	Paddy Field-Pvt.		Panchmile	
22		Loc-5/1	Single Pole	0.894m	0°49'43"	45	1063	26.665863 92.838650	Paddy Field-Pvt.	Over- 11kv & Kachha Road-4m	Panchmile	SP-76 Pole Required
23		Loc-5/2	Single Pole	0.934m	0°46'10"	49	1098	26.665566 92.838334	Paddy Field-Pvt.		Panchmile	Guarding Required
24		Loc-5/3	Single Pole		0°62'88"	50	1147	26.665246 92.837988	Paddy Field-Pvt.		Panchmile	SP-76 Pole Required
25		Loc-5/4	Single Pole		0°09'09"	29	1197	26.664917 92.837640	Paddy Field-Pvt.		Panchmile	
26	AP-6	AP-6	Single Pole		31°60'08"		1226	26.664728 92.837433	Paddy Field-Pvt.		Panchmile	

Kishantgawal

Ahmed

POLE SCHEDULE

33kV S/C Line Tezpur New 132/33 KV S/S To Dolabari 33/11KV S/S(Ex.)

CONTRACTOR: NECCON POWER & INFRA LIMITED

PACKAGE: ASM - ASM-DMS-01

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

LOA Ref.No. U.C.C.-S/94-NER/REW-3079/IG/10/CA-I/7026-Supply
 2.C.C.-S/94-NER/REW-3079/IG/10/CA-I/7027-Services

Sl. No.	Angle Point	Loc. No	Pole Type	Exin.	Angle of Deviation	Span Length	Comm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
27		Loc-6/1	Single Pole		0°30'99"	29	0	26.664472	92.837168	Paddy Field-Pvt		Panchmile	
28		Loc-6/2	Single Pole		0°04'72"	49	0	26.664038	92.837265	Paddy Field-Pvt		Panchmile	
29		Loc-6/3	Single Pole		0°38'55"	49	0	26.663598	92.837161	Paddy Field-Pvt		Panchmile	
30		Loc-6/4	Single Pole		0°77'11"	50	0	26.663164	92.837055	Paddy Field-Pvt		Panchmile	
31		Loc-6/5	Single Pole		0°78'12"	36	0	26.662722	92.836954	Paddy Field-Pvt		Panchmile	
32	AP-7	AP-7	Single Pole		14°02'39"	36	0	26.662407	92.836877	Paddy Field-Pvt		Panchmile	
33		Loc-7/1	Single Pole		0°32'06"	49	0	26.662076	92.836888	Paddy Field-Pvt		Panchmile	
34		Loc-7/2	Single Pole		0°02'03"	45	0	26.661631	92.836900	Paddy Field-Pvt		Panchmile	
35		Loc-7/3	Double Pole		10°72'74"	50	0	26.661229	92.836911	Paddy Field-Pvt	Blacktop Road-4m & Over-LT Line	Dolabari	Guarding Required
36		Loc-7/4	Single Pole		0°08'23"	50	0	26.660788	92.836830	Paddy Field-Pvt		Dolabari	
37		Loc-7/5	Single Pole		0°00'00"	49	0	26.660343	92.836749	Paddy Field-Pvt		Dolabari	
38		Loc-7/6	Single Pole		0°06'16"	49	0	26.659898	92.836668	Paddy Field-Pvt		Dolabari	
39		Loc-7/7	Single Pole		0°11'29"	50	0	26.659456	92.836587	Paddy Field-Pvt		Dolabari	
40		Loc-7/8	Single Pole		0°33'84"	49	0	26.659014	92.836507	Paddy Field-Pvt		Dolabari	
41		Loc-7/9	Single Pole		0°02'11"	50	0	26.658572	92.836424	Paddy Field-Pvt		Dolabari	
42		Loc-7/10	Single Pole		0°45'03"	50	0	26.658129	92.836341	Paddy Field-Pvt		Dolabari	
43		Loc-7/11	Single Pole		0°02'01"	50	0	26.657686	92.836262	Paddy Field-Pvt		Dolabari	
44		Loc-7/12	Single Pole		0°20'55"	45	0	26.657242	92.836183	Paddy Field-Pvt		Dolabari	
45	AP-8	AP-8	Double Pole		40°95'24"	50	0	26.656841	92.836110	Paddy Field-Pvt	Kachha Road-3m & Over- LT Line	Dolabari	Guarding Required
46		Loc-8/1	Single Pole		0°07'33"	50	0	26.656555	92.835726	Paddy Field-Pvt		Dolabari	
47		Loc-8/2	Single Pole		0°09'83"	50	0	26.656269	92.835341	Paddy Field-Pvt		Dolabari	
48		Loc-8/3	Single Pole		0°07'33"	50	0	26.655982	92.834956	Paddy Field-Pvt		Dolabari	
49		Loc-8/4	Single Pole		0°48'86"	50	0	26.655695	92.834572	Paddy Field-Pvt		Dolabari	
50		Loc-8/5	Single Pole		0°48'86"	50	0	26.655410	92.834184	Paddy Field-Pvt		Dolabari	
51		Loc-8/6	Single Pole		0°19'70"	25	0	26.655123	92.833800	Paddy Field-Pvt		Dolabari	
52		AP-9	Single Pole		13°48'10"	37	0	26.654980	92.833610	Paddy Field-Pvt		Dolabari	



Handwritten signature: Kishorjansel

33kV S/C Line Tezpur New 132/33 kv S/S To Dolabari 33/11kv S/S(Ex.)
POLE SCHEDULE
 CLIENT: POWER GRID CORPORATION OF INDIA LIMITED
 LOA RefNo: 1-CC-CS94-NER/REW-3079/1/G10/CA-1/7026-Supply
 2-CC-CS94-NER/REW-3079/1/G10/CA-1/7027-Services
 CONTRACTOR: NECCON POWER & INFRA LIMITED
 PACKAGE:ASM-ASM-DMS-01

Sl. No.	Angle Point	Loc. No	Pole Type	Extn.	Angle of Deviation	Span Length	Cumm. Span (m)	Co-Ordinates Latitude Longitude	Description of Land	Crossing Details	Village Name	Remarks
53		Loc-9/1	Single Pole		1°37'37"	50	2072	26.654705 92.833383	Paddy Field-Pvt		Dolabari	
54		Loc-9/2	Single Pole		3°04'14"	39	2522	26.654338 92.833095	Paddy Field-Pvt	Kachha Road-4m & Over-11kv LT Line	Dolabari	Guarding Required SP-76 Pole Required(Composite Pole)
55		Loc-9/3	Double Pole	2.50m	5°15'80"	2561	2561	26.654070 92.832860	Paddy Field-Pvt		Dolabari	
56		Loc-9/4	Double Pole	0.866m	9°25'27"	50	2611	26.653745 92.832518	Paddy Field-Pvt	Over-11kv	Dolabari	SP-76 Pole Required Guarding Required
57	AP-10	AP-10	Double Pole		17°29'08"	45	2656	26.653407 92.832263	Paddy Field-Pvt		Dolabari	
58		Loc-10/1	Single Pole		0°28'99"	49	2705	26.652981 92.832120	Paddy Field-Pvt		Dolabari	
59		Loc-10/2	Single Pole		0°12'25"	50	2755	26.652551 92.831973	Paddy Field-Pvt		Dolabari	
60	AP-11	AP-11	Double Pole		21°37'98"	44	2805	26.652100 92.831820	Paddy Field-Pvt		Dolabari	
61		Loc-11/1	Single Pole		0°14'08"	45	2849	26.651795 92.831551	Pond Bank-Pvt.		Dolabari	
62		Loc-11/2	Single Pole		0°70'58"	44	2894	26.651486 92.831282	Pond Bank-Pvt.		Dolabari	
63		Loc-11/3	Single Pole		1°79'28"	47	2938	26.651170 92.830990	Pond Bank-Pvt.		Dolabari	
64	AP-12	AP-12	Double Pole		19°02'81"	42	2985	26.650850 92.830680	Pond Bank-Pvt.	Blacktop Road-4m & Over-LT Line	Dolabari	Guarding Required
65	AP-13	AP-13	Double Pole		47°77'66"	48	3027	26.650500 92.830530	Pond Bank-Pvt.		Dolabari	
66	AP-14	AP-14	Four Pole		61°45'93"	47	3075	26.650340 92.830070	Pond Bank-Pvt.		Dolabari	
67		Loc-14/1	Single Pole		1°44'40"	39	3122	26.649920 92.830010	Pond Bank-Pvt.		Dolabari	
68		Loc-14/2	Double Pole		8°18'94"	78	3161	26.649570 92.829970	Pond Bank-Pvt.	Pond Crossing	Dolabari	
69		Loc-14/3	Double Pole		6°47'90"	61	3239	26.648890 92.829780	Pond Bank-Pvt.	Pond Crossing	Dolabari	
70	AP-15	AP-15	Double Pole		26°06'66"	88	3300	26.648350 92.829700	Pond Bank-Pvt.	Pond Crossing	Dolabari	
71	AP-16	AP-16	Double Pole		13°02'32"	29	3388	26.647700 92.829200	Pond Bank-Pvt.		Dolabari	
72	AP-17	AP-17	Four Pole	2.50m	17°98'03"	58	3417	26.647528 92.828983	Pond Bank-Pvt.		Dolabari	SP-76 Pole Required (Composite Pole With 11KV) Guarding Required
73		Loc-17/1	Four Pole	2.50m	8°27'71"	32	3475	26.647320 92.828450	Pond Bank-Pvt.	Over-NH	Dolabari	SP-76 Pole Required (Composite Pole With 11KV) Guarding Required
74		Loc-17/2	Double Pole		4°01'48"	42	3507	26.647170 92.828180	Paddy Field-Pvt.		Dolabari	
75		Loc-17/3	Single Pole		3°48'53"	46	3549	26.647000 92.827820	Paddy Field-Pvt.	Over-LT Cable & Kachha Road-3m	Dolabari	Guarding Required
76	AP-18	AP-18	Four Pole		58°29'48"	50	3595	26.646830 92.827400	Paddy Field-Pvt.		Dolabari	
77		Loc-18/1	Single Pole		0°21'11"	50	3645	26.646386 92.827336	Paddy Field-Pvt.		Dolabari	

3 OF 5
distantgaurav



POLE SCHEDULE
 33kV S/C Line Tezpur New 132/33 kv S/S To Dolabari 33/11kv S/s(Ex.)
 CONTRACTOR: NECCON POWER & INFRA LIMITED

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED
 LOA Ref.No: 1.CC-CS94-NER/REW-3079/1/G10/CA-I/7026-Supply
 2.CC-CS94-NER/REW-3079/1/G10/CA-II/7027-Services
 PACKAGE:ASM- ASM-DMS-01

Sl. No.	Angle Point	Loc. No	Pole Type	Exn.	Angle of Deviation	Span Length	Cum. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
78		Loc-18/2	Single Pole		0°34'43"	50	3695	26.645943	92.827274	Paddy Field-Pvt		Dolabari	
79		Loc-18/3	Single Pole		0°14'49S"	50	3745	26.645507	92.827210	Paddy Field-Pvt		Dolabari	
80		Loc-18/4	Single Pole		0°50'75S"	50	3795	26.645062	92.827146	Paddy Field-Pvt		Dolabari	
81	AP-19	AP-19	Double Pole		23°59'04"	50	3845	26.644617	92.827090	Paddy Field-Pvt		Dolabari	
82		Loc-19/1	Single Pole		0°16'03"	50	3895	26.644227	92.826838	Paddy Field-Pvt		Dolabari	
83		Loc-19/2	Single Pole		0°52'80"	50	3945	26.643839	92.826589	Paddy Field-Pvt		Dolabari	
84		Loc-19/3	Single Pole		0°00'33"	50	3995	26.643450	92.826334	Paddy Field-Pvt		Dolabari	
85		Loc-19/4	Single Pole		0°31'03"	50	4045	26.643064	92.826081	Paddy Field-Pvt		Dolabari	
86		Loc-19/5	Single Pole		0°09'8"	50	4095	26.642675	92.825830	Paddy Field-Pvt		Dolabari	
87		Loc-19/6	Single Pole		0°09'37"	50	4145	26.642286	92.825578	Paddy Field-Pvt		Dolabari	
88		Loc-19/7	Single Pole		0°09'49"	50	4195	26.641900	92.825327	Paddy Field-Pvt		Dolabari	
89		Loc-19/8	Single Pole		0°33'83"	50	4245	26.641517	92.825077	Paddy Field-Pvt		Dolabari	
90	AP-20	AP-20	Four Pole		59°04'83"	50	4295	26.641180	92.824860	Paddy Field-Pvt		Dolabari	
91		Loc-20/1	Single Pole		0°06'72"	50	4345	26.640798	92.825107	Paddy Field-Pvt		Dolabari	
92	AP-21	AP-21	Four Pole		72°36'08"	50	4395	26.640426	92.825357	Paddy Field-Pvt		Dolabari	
93		Loc-21/1	Single Pole		0°24'31"	50	4445	26.640088	92.825024	Paddy Field-Pvt		Dolabari	
94		Loc-21/2	Single Pole		0°58'48"	50	4495	26.639743	92.824687	Paddy Field-Pvt		Dolabari	
95		Loc-21/3	Single Pole		0°57'52"	50	4545	26.639396	92.824341	Paddy Field-Pvt		Dolabari	
96		Loc-21/4	Single Pole		3°51'74"	50	4595	26.639046	92.823999	Paddy Field-Pvt		Dolabari	
97	AP-22	AP-22	Four Pole		65°62'90"	50	4645	26.638690	92.823600	Paddy Field-Pvt	Over-LT Line, 11KV & Kachhia Road-3m	Dolabari	Guarding Required SP-76 Pole Required (Composite Pole With 11KV)
98	AP-23	AP-23	Four Pole	2.50m	82°53'12"	45	4695	26.638240	92.823789	Along the Road-Pvt		Dolabari	Guarding Required SP-76 Pole Required (Composite Pole With 11KV)
99		Loc-23/1	Single Pole		04°02'12"	29	4741	26.638050	92.823390	Along the Road-Pvt		Dolabari	Guarding Required SP-76 Pole Required (Composite Pole With 11KV)
100	AP-24	AP-24	Double Pole		77°60'71"	24	4770	26.637910	92.823140	Along the Road-Pvt		Dolabari	Guarding Required SP-76 Pole Required (Composite Pole With 11KV)
101	AP-25	AP-25	Double Pole		72°21'44"	40	4794	26.637710	92.823220	Along the Road-Pvt		Dolabari	Guarding Required SP-76 Pole Required (Composite Pole With 11KV)

Asst. Engineer
 Kishan Kumar



POLE SCHEDULE													
33kV S/C Line Tezpur New 132/33 kv S/S To Dolabari 33/11kv S/S(Ex)													
CONTRACTOR: NCC CON POWER & INFRA LIMITED													
PACKAGE/ASM-ASM-DMS-01													
CLIENT: POWER GRID CORPORATION OF INDIA LIMITED													
LOA Ref.No: LCC-CS/94-NER/REW-3079/1/G/10/CA-1/7026-Supply													
2.CC-CS/94-NER/REW-3079/1/G/10/CA-1/7027-Services													
SL. No.	Angle Point	Loc. No	Pole Type	Exn.	Angle of Deviation	Span Length	Cumm. Span (m)	Co-Ordinates Latitude	Co-Ordinates Longitude	Description of Land	Crossing Details	Village Name	Remarks
102		Loc-25/1	Single Pole		01°00'00"	42	4834	26.637497	92.822909	Along the Road Pvt		Dolabari	
103		Loc-25/2	Double Pole		AP-28		4876	26.637255	92.822879	Along the Road Pvt		Dolabari	

[Handwritten Signature]



[Handwritten Signature]

25/10/2019

[Handwritten Signature]

(के. अग्रवाल / K. AGARWAL)
अभियंता / Engineer
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

POLE SCHEDULE

33kV S/C Line Tezpur New 132/33 kv S/S To Parowa 33/11kv S/S(Ex.)

CONTRACTOR: NECCON POWER & INFRA LIMITED

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

PACKAGE:ASM- ASM-DMS-01

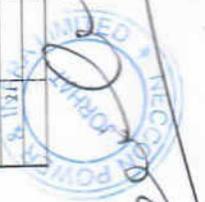
LOA Ref.No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-1/7026-Supply

2.CC-CS/94-NER/REW-3079/1/G10/CA-1/7027-Services

SL. No.	Angle Point	Loc. No	Pole Type	Extn.	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
1	0		Four Pole			38		26.675580	92.836520	132KV SS Boundary		Purai Alimur	
2		Loc-0/1	Single Pole		3°20'26"	40	38	26.675580	92.836140	132KV SS Boundary		Purai Alimur	
3	AP-1	AP-1	Double Pole		24°29'48"	45	78	26.675660	92.835740	132KV SS Boundary	Naha - 10m	Purai Alimur	Guarding Required
4	AP-2	AP-2	Double Pole		10°57'66"	50	123	26.673360	92.835310	Paddy Field-Pvt.		Jahazduba	
5		Loc-2/1	Single Pole		2°73'01"	50	173	26.673080	92.834910	Paddy Field-Pvt.		Jahazduba	
6		Loc-2/2	Single Pole		1°75'02"	50	223	26.672810	92.834560	Paddy Field-Pvt.		Jahazduba	
7		Loc-2/3	Double Pole		2°76'01"	39	273	26.672520	92.834160	Paddy Field-Pvt.	Over-11kv & Kachha Road-4m	Jahazduba	Guarding Required SP-76 Pole Required
8	AP-3	AP-3	Four Pole	0.555m	80°10'09"	36	312	26.672310	92.833840	Along the Road-Pvt.		Jahazduba	
9	AP-4	AP-4	Single Pole		15°04'39"	36	348	26.672534	92.833601	Along the Road-Pvt.		Jahazduba	
10		Loc-4/1	Single Pole		1°21'64"	44	384	26.672700	92.833318	Along the Road-Pvt.		Jahazduba	
11		Loc-4/2	Single Pole		0°21'87"	44	428	26.672920	92.832925	Along the Road-Pvt.		Jahazduba	
12		Loc-4/3	Single Pole		5°99'32"	45	472	26.673143	92.832530	Along the Road-Pvt.		Jahazduba	
13		Loc-4/4	Single Pole		01°26'82"	44	517	26.673324	92.832120	Along the Road-Pvt.		Jahazduba	
14		Loc-4/5	Single Pole		4°72'59"	38	561	26.673518	92.831704	Along the Road-Pvt.		Jahazduba	
15	AP-5	AP-5	Single Pole		12°56'86"	38	599	26.673671	92.831433	Along the Road-Pvt.		Jahazduba	
16		Loc-5/1	Single Pole		4°15'38"	44	637	26.673777	92.831102	Along the Road-Pvt.		Jahazduba	
17		Loc-5/2	Single Pole		3°08'58"	44	681	26.673887	92.830660	Along the Road-Pvt.		Jahazduba	
18		Loc-5/3	Single Pole		0°16'76"	44	725	26.673974	92.830220	Along the Road-Pvt.		Jahazduba	
19		Loc-5/4	Single Pole		2°76'31"	43	768	26.674059	92.829796	Along the Road-Pvt.		Jahazduba	
20		Loc-5/5	Single Pole		0°47'38"	40	810	26.674125	92.829372	Along the Road-Pvt.		Jahazduba	
21		Loc-5/6	Single Pole		0°32'49"	31	850	26.674186	92.828960	Along the Road-Pvt.		Jahazduba	

(एन ग्रीड कॉर्पोरेशन ऑफ इंडिया लिमिटेड)
मुख्य प्रबंधक (Chief Manager)
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

Chandra K. K. Nayan



POLE SCHEDULE

33kv S/C Line Tezpur New 132/33 kv S/S To Parowa 33/11kv S/s(Ex.)

CONTRACTOR: NECCON POWER & INFRA LIMITED

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

PACKAGE: ASM-ASM-DMS-01

LOA Ref.No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-I/7026-Supply
2.CC-CS/94-NER/REW-3079/1/G10/CA-II/7027-Services

SL. No.	Angle Point	Loc. No	Pole Type	Extn.	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
22	AP-6	AP-6	Double Pole		15°68'08"	58	881	26.674230	92.828650	Along the Road-Pvt.	Nala-25m	Jahazduba	Guarding Required
23	AP-7	AP-7	Double Pole		21°33'44"	49	939	26.674170	92.828070	Along the Road-Pvt.		Khonamukh	
24	Loc-7/1	Loc-7/1	Single Pole		3°38'02"	50	988	26.673990	92.827690	Along the Road-Pvt.		Khonamukh	
25	Loc-7/2	Loc-7/2	Single Pole		1°45'23"	50	1038	26.673740	92.827230	Along the Road-Pvt.		Khonamukh	
26	Loc-7/3	Loc-7/3	Single Pole		5°18'49"	50	1088	26.673510	92.826830	Along the Road-Pvt.		Khonamukh	
27	Loc-7/4	Loc-7/4	Single Pole		2°80'30"	50	1138	26.673300	92.826380	Along the Road-Pvt.		Khonamukh	
28	Loc-7/5	Loc-7/5	Single Pole		0°28'48"	50	1188	26.673080	92.825960	Along the Road-Pvt.		Khonamukh	
29	Loc-7/6	Loc-7/6	Single Pole		2°21'82"	50	1238	26.672860	92.825530	Along the Road-Pvt.		Khonamukh	
30	Loc-7/7	Loc-7/7	Single Pole		6°30'41"	50	1288	26.672650	92.825080	Along the Road-Pvt.		Khonamukh	
31	Loc-7/8	Loc-7/8	Single Pole		3°60'00"	50	1338	26.672410	92.824680	Along the Road-Pvt.		Khonamukh	
32	Loc-7/9	Loc-7/9	Single Pole		2°17'23"	50	1388	26.672170	92.824220	Along the Road-Pvt.		Khonamukh	
33	Loc-7/10	Loc-7/10	Single Pole		3°39'42"	50	1438	26.671960	92.823780	Along the Road-Pvt.		Khonamukh	
34	Loc-7/11	Loc-7/11	Single Pole		0°59'74"	50	1488	26.671730	92.823360	Along the Road-Pvt.		Khonamukh	
35	Loc-7/12	Loc-7/12	Double Pole		2°14'54"	45	1538	26.671500	92.822930	Along the Road-Pvt.	Kachha Road-5m	Khonamukh	Guarding Required
36	Loc-7/13	Loc-7/13	Double Pole		1°43'71"	50	1583	26.671250	92.822500	Along the Road-Pvt.		Khonamukh	
37	Loc-7/14	Loc-7/14	Single Pole		4°76'12"	50	1633	26.671030	92.822100	Along the Road-Pvt.		Khonamukh	
38	Loc-7/15	Loc-7/15	Single Pole		6°62'46"	50	1683	26.670840	92.821680	Along the Road-Pvt.		Khonamukh	
39	Loc-7/16	Loc-7/16	Single Pole		1°49'42"	50	1733	26.670580	92.821240	Along the Road-Pvt.		Khonamukh	
40	Loc-7/17	Loc-7/17	Single Pole		5°71'11"	50	1783	26.670330	92.820840	Along the Road-Pvt.		Khonamukh	
41	Loc-7/18	Loc-7/18	Single Pole		4°65'05"	50	1833	26.670120	92.820420	Along the Road-Pvt.		Khonamukh	
42	Loc-7/19	Loc-7/19	Single Pole		3°38'16"	45	1883	26.669880	92.820020	Along the Road-Pvt.	Over-I.T Line & Kachha Road-4m	Khonamukh	Guarding Required
43	Loc-7/20	Loc-7/20	Single Pole		6°38'27"		1938	26.669680	92.819640	Along the Road-Pvt.		Khonamukh	

(স্বাক্ষরিত) **U. BARBHUIYA**
Chief Manager
NERPSIP Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

POLE SCHEDULE

33KV S/C Line Tezpur New 132/33 kv S/S To Parawa 33/11kv S/s(Ex.)

CONTRACTOR: NECCON POWER & INFRA LIMITED

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

LOA Ref:No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-I/7026 -Supply
2.CC-CS/94-NER/REW-3079/1/G10/CA-II/7027-Services

PACKAGE:ASM- ASM-DMS-01

Sl. No.	Angle Point	Loc. No	Pole Type	Extn.	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
44		Loc-7/21	Single Pole		5°8'189"	50	0	26.669500	92.819190	Along the Road-Pvt.		Khonamukh	
45		Loc-7/22	Double Pole	1m	3°0'290"	50	0	26.669370	92.818750	Along the Road-Pvt.	Over-11kv & Kachha Road-4m	Khonamukh	Guarding Required
46		Loc-7/23	Double Pole	1.5m	2°8'097"	45	0	26.669270	92.818340	Along the Road-Pvt.		Khonamukh	
47		Loc-7/24	Single Pole		4°9'529"	50	0	26.669130	92.817860	Along the Road-Pvt.		Khonamukh	
48		Loc-7/25	Single Pole		5°6'846"	50	0	26.669030	92.817380	Along the Road-Pvt.		Khonamukh	
49		Loc-7/26	Single Pole		5°1'350"	50	0	26.668890	92.816920	Along the Road-Pvt.		Khonamukh	
50		Loc-7/27	Single Pole		1°0'786"	50	0	26.668790	92.816460	Along the Road-Pvt.		Khonamukh	
51		Loc-7/28	Single Pole		1°4'710"	50	0	26.668670	92.815950	Along the Road-Pvt.		Khonamukh	
52		Loc-7/29	Single Pole		0°5'929"	50	0	26.668540	92.815450	Along the Road-Pvt.		Khonamukh	
53		Loc-7/30	Single Pole		2°0'009"	50	0	26.668420	92.814970	Along the Road-Pvt.		Khonamukh	
54		Loc-7/31	Single Pole		0°8'271"	50	0	26.668280	92.814480	Along the Road-Pvt.	Over-LT Line & Kachha Road-3m	Khonamukh	Guarding Required
55		Loc-7/32	Double Pole		3°7'421"	45	0	26.668130	92.813980	Along the Road-Pvt.		Porawa	
56		Loc-7/33	Single Pole		1°8'002"	50	0	26.668000	92.813430	Along the Road-Pvt.		Porawa	
57		Loc-7/34	Single Pole		0°9'339"	50	0	26.667880	92.812980	Along the Road-Pvt.		Porawa	
58		Loc-7/35	Single Pole		6°5'566"	50	0	26.667750	92.812520	Along the Road-Pvt.		Porawa	
59		Loc-7/36	Single Pole		7°0'630"	50	0	26.667670	92.812060	Along the Road-Pvt.		Porawa	
60		Loc-7/37	Single Pole		2°7'774"	50	0	26.667530	92.811580	Along the Road-Pvt.		Porawa	
61		Loc-7/38	Single Pole		0°8'189"	50	0	26.667420	92.811130	Along the Road-Pvt.		Porawa	
62		Loc-7/39	Single Pole		0°3'781"	50	0	26.667300	92.810610	Along the Road-Pvt.		Porawa	
63		Loc-7/40	Single Pole		5°1'731"	50	0	26.667176	92.810126	Along the Road-Pvt.	Over-LT Line	Porawa	Guarding Required
64		Loc-7/41	Double Pole		6°1'515"	45	0	26.667040	92.809640	Along the Road-Pvt.		Porawa	



(স্বাক্ষর) N.J. BARBHUIYA
মুখ্য প্রকল্প / Chief Manager
NERPSIP Corporation of Assam Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

POLE SCHEDULE

33kV S/C Line Tezpur New 132/33 kv S/S To Parowa 33/11kv S/S(Ex.)

CONTRACTOR: NECCON POWER & INFRA LIMITED

PACKAGE:ASM- ASM-DMS-01

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

LOA Ref.No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-I/7026 -Supply
2.CC-CS/94-NER/REW-3079/1/G10/CA-II/7027-Services

SL. No.	Angle Point	Loc. No	Pole Type	Extn.	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
65		Loc-7/42	Single Pole		5°31'16"	50	3013	26.666940	92.809160	Along the Road-Pvt.		Porowa	
66		Loc-7/43	Single Pole		4°05'14"	50	3063	26.666800	92.808690	Along the Road-Pvt.		Porowa	
67		Loc-7/44	Single Pole		4°05'14"	50	3113	26.666690	92.808210	Along the Road-Pvt.		Porowa	
68		Loc-7/45	Single Pole		4°7'621"	50	3163	26.666550	92.807740	Along the Road-Pvt.		Porowa	
69		Loc-7/46	Single Pole		2°54'96"	50	3213	26.666450	92.807280	Along the Road-Pvt.		Porowa	
70		Loc-7/47	Double Pole		4°37'24"	45	3263	26.666320	92.806780	Along the Road-Pvt.	Kachha Road-4m	Porowa	Guarding Required
71		Loc-7/48	Double Pole		4°37'14"	50	3308	26.666209	92.806306	Along the Road-Pvt.		Porowa	
72		Loc-7/49	Single Pole		3°09'92"	50	3358	26.666100	92.805800	Along the Road-Pvt.		Porowa	
73		Loc-7/50	Single Pole		4°42'64"	50	3408	26.665981	92.805328	Along the Road-Pvt.		Porowa	
74		Loc-7/51	Single Pole		1°45'00"	50	3458	26.665870	92.804860	Along the Road-Pvt.		Porowa	
75		Loc-7/52	Single Pole		3°05'43"	50	3508	26.665750	92.804470	Along the Road-Pvt.		Porowa	
76		Loc-7/53	Single Pole		4°9'322"	50	3558	26.665630	92.804000	Along the Road-Pvt.		Porowa	
77		Loc-7/54	Single Pole		7°06'29"	50	3608	26.665532	92.803545	Along the Road-Pvt.		Porowa	
78		Loc-7/55	Single Pole		1°80'22"	50	3658	26.665410	92.803060	Along the Road-Pvt.		Porowa	
79		Loc-7/56	Single Pole		0°32'85"	50	3708	26.665290	92.802600	Along the Road-Pvt.		Porowa	
80		Loc-7/57	Single Pole		1°26'90"	50	3758	26.665170	92.802130	Along the Road-Pvt.		Porowa	
81		Loc-7/58	Double Pole		2°52'21"	45	3808	26.665060	92.801660	Along the Road-Pvt.	Kachha Road-3m & Over LT Line	Porowa	Guarding Required
82		Loc-7/59	Single Pole		4°58'30"	45	3853	26.664930	92.801190	Along the Road-Pvt.	Over-L T Line	Porowa	Guarding Required
83		Loc-7/60	Single Pole		4°24'52"	50	3898	26.664830	92.800690	Along the Road-Pvt.		Porowa	
84		Loc-7/61	Single Pole		0°24'42"	50	3948	26.664700	92.800210	Along the Road-Pvt.		Porowa	
85		Loc-7/62	Single Pole		6°92'54"	46	3998	26.664590	92.799810	Along the Road-Pvt.		Porowa	
86	AP-8	AP-8	Four Pole		75°49'58"		4044	26.664488	92.799554	Along the Road-Pvt.		Porowa	

(Handwritten signature)

(एन यु बरभुइया) U. BARBHUIYA
मुख्य प्रबंधक / Chief Manager
Powergrid Corporation (India) Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

(Handwritten signature)

(Handwritten signature)

POLE SCHEDULE

CONTRACTOR: NECCON POWER & INFRA LIMITED

33kV S/C Line Tezpur New 132/33 kv S/S To Parowa 33/11kv S/S(Ex.)

PACKAGE:ASM-ASM-DMS-01

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED

LOA Ref:No: 1.CC-CS/94-NER/REW-3079/1/G10/CA-I/7026-Supply
2.CC-CS/94-NER/REW-3079/1/G10/CA-II/7027-Services

SL. No.	Angle Point	Loc. No	Pole Type	Extm.	Angle of Deviation	Span Length (m)	Cumm. Span (m)	Co-Ordinates		Description of Land	Crossing Details	Village Name	Remarks
								Latitude	Longitude				
87		Loc-8/1	Single Pole		3°6'20.5"	50	4094	26.664030	92.799640	Paddy Field-Pvt.		Porawa	
88		Loc-8/2	Single Pole		1°30'54"	50	4144	26.663598	92.799690	Paddy Field-Pvt.		Porawa	
89		Loc-8/3	Single Pole		0°24'2"	50	4194	26.663153	92.799753	Paddy Field-Pvt.		Porawa	
90		Loc-8/4	Single Pole		0°85'12"	50	4244	26.662707	92.799814	Paddy Field-Pvt.		Porawa	
91		Loc-8/5	Double Pole		9°30'86"	50	4294	26.662258	92.799883	Paddy Field-Pvt.	Nala-10m	Porawa	Guarding Required
92	AP-9	AP-9	Double Pole		42°93'55"	50	4344	26.661811	92.799870	Paddy Field-Pvt.		Porawa	
93		Loc-9/1	Single Pole		0°64'74"	50	4394	26.661493	92.799921	Paddy Field-Pvt.		Porawa	
94		Loc-9/2	Single Pole		0°11'79"	50	4444	26.661164	92.799968	Paddy Field-Pvt.		Porawa	
95		Loc-9/3	Single Pole		0°96'77"	50	4494	26.660843	92.799825	Paddy Field-Pvt.		Porawa	
96		Loc-9/4	Single Pole		0°77'49"	50	4544	26.660520	92.799848	Paddy Field-Pvt.		Porawa	
97	AP-10	AP-10	Double Pole		17°67'58"	45	4594	26.660190	92.798113	Paddy Field-Pvt.	Nala-10m	Porawa	Guarding Required
98	AP-11	AP-11	Double Pole		33°63'60"	45	4639	26.659990	92.797700	Paddy Field-Pvt.		Porawa	
99		Loc-11/1	Single Pole		3°72'73"	46	4684	26.660020	92.797330	Paddy Field-Pvt.		Porawa	
100	AP-12	AP-12	Four Pole		86°62'24"	45	4730	26.660030	92.796890	Paddy Field-Pvt.		Porawa	
101		Loc-12/1	Single Pole		0°42'98"	46	4775	26.659639	92.796822	Paddy Field-Pvt.		Porawa	
102		Loc-12/2	Single Pole		1°50'34"	46	4821	26.659250	92.796751	Paddy Field-Pvt.		Porawa	
103	AP-13	AP-13	Four Pole		90°00'00"	24	4867	26.658850	92.796690	Paddy Field-Pvt.	Parowa Main Road	Porawa	Guarding Required
			Gantry Location				4891						



Signature

(एन गु बरमुइया/ N.U. BARBHUIYA)
मुख्य प्रबंधक / Chief Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

Signature

(एस.के.इच/ S.K. DUTTA)
उप महा प्रबंधक/ Dy. Gen. Manager
Powergrid Corporation of India Ltd.
NERPSIP, Tezpur, Sonitpur, Assam

POWER GRID CORPORATION OF INDIA LTD.
L1LO 132 KV S/C GOLAGHAT -BOKAJAN AT SARUPATHAR T/L
M/S SIMPLEX INFRASTRUCTURES LIMITED
DETAILS SURVEY TOWER SCHEDULE FOR THE SECTION - AP-1 (ONLINE TOWER) TO GANTRY(0.270KM)

Sl.No.	AP NO.	LOCATION NO.	TOWER TYPE	EXT	Angle of Deviation	Span Length (m)	Section Length (m)	Reduced Level (m)	ADJ. SPAN (m)	Wind Span (m)		Hor. Weight Span (m)		Uthm COORDINATE		VILLAGE NAME	REMARKS
										Left	Right	Left	Right	Latitude	Longitude		
1	AP-1/0	AP-1/0	DD+03	3	00°00'00"	65.00		117.59	65.00		117.00	194.00	194.00	26°11'41.84"N	93°54'4.94"E	IKARANI	ONLINE AUX-BOX CROSS ARM TOWER
2	AP-2/0(D/E)	2/0	DD+00	0	83°34'22"LT	160.00	65.00	117.59	225.00	112.50	81.00	-129.00	84.00	26°11'41.70"N	93°54'7.46"E	IKARANI	U/C 33 KV LINE AUX-BOX CROSS ARM TOWER
3	AP-3/0(D/E)	3/0	DD+00	0	2°6'13"(LT)	45.00	160.00	117.324	205.00	102.50	75.00	72.00	44.00	26°11'46.53"N	93°54'8.65"E	IKARANI	
4	GANTRY	GANTRY		0	00°00'00"		45.00	117.61	40.00		11.00	1.00	-	26°11'47.83"N	93°54'8.84"E	IKARANI	
										TOTAL LENGTH= 0.270KM							

TOWER TYPE	TOWER ABSTRACT					TOTAL
	-1.0m	+5.0m	+15m	+18m	+22.5m	
DA	0	0	0	0	0	0
DB	0	0	0	0	0	0
DC	0	0	0	0	0	0
DD	2	1	0	0	0	3
TOTAL						3

SIMPLEX INFRASTRUCTURES LIMITED	
SURVEYED BY  S. B. Das	CHECKED BY  S. B. Das
SUBMITTED BY Mohan Kr. Pandit Project Manager	
POWER GRID CORPORATION OF INDIA LTD.	
CHECKED BY	APPROVED BY
RECOMMENDED BY	APPROVED BY

Simplex Infrastructures Ltd.
 TW07, FGCIL, Guwahati- 781007



Checked and found in order. Recommend for approval.

Approved

02/04/19

डि. दि. मिश्र / D. D. Misra
 ब. उप महाप्रबंधक/Sr. Dy. Gen. Manager
 एन.इ.आर.पि.एस.आइ.पि./NERPSIP
 पावरग्रिड/POWERGRID
 सरूपथार / Sarupathar

S. B. Das
 रि. दास / D. Das
 अभियंता / Engineer
 एन.इ.आर.पि.एस.आइ.पि./NERPSIP
 पावरग्रिड/POWERGRID

ANNEXURE - 4

DETAILS OF PUBLIC CONSULTATION

PUBLIC AWARENESS MEETING

Date:- 05/11/2017

A public consultation/awareness meeting has been organized at Kumargaon, Tezpur, Prabhata G.P. in presence of following participants/villagers to discuss about construction of 33kV new line connecting 132/33kV Tezpur new 9/3 to 33/11kV LGM Hospital new substation under NERDISP, Assam funded by world bank and GOI

<u>Signature of Villagers</u>	<u>Signature of APDEL</u>	<u>Signature of M/S NEECON.</u>
01. Shri Tejendra Neog.	01- Arun Kr. Das, LM-II	01. Mahesh Kr. Choudhury
02. Bishit Swar Neog.	02- Ganga Dhar Barua	02. Megha Kr. Keel
03. Manku Da Barua.	03. Manku Da Barua	03. Brijendra Kumar
04. Jintu Baruah	04. S. Sarma, ^{Asst. Engr.} DM, Tezpur	<u>Praveen</u>
05. Lakshmi Baruah	05. Pradeep (DM, Tezpur ESD)	
06. श्री २२ श्री २२		
07. Ganga Dhar Barua		
08. Arun Kr. Das.		
09. Monir Uddin Ahmed		
10. Sri Ananta Barua		
11. Hobji		
12. श्री १० श्री १०		
13. Lakshmi Barua		
14. श्री १० श्री १०		
15. श्री १० श्री १०		

Signature of POWERGRID

- U. Hognu - ³⁵⁵ Sr. Engr. 05/11/17.
- N. U. Barbhuiya - Dy. Engr. 05/11/17
- Hanjay Kr. Naik DE 05/11/17

MOM

A public consultation has been organised at Anganwari Kendra, Puraniali Mur, Panchmile GP in presence of following participants to discuss / aware about the construction of 33 KV new line connecting 132/33 KV Tezpur New SS to 33/11 KV existing Dolabari SS on 26-04-17. under NERPSIP, funded by World Bank.

POWERGRID

1. U. Hoque 3EE
Sv. Engr
2. M. K. Nain
DET
3. M. Rahman (FSE/et)

M/s. NECON

1. Bijit Saini
2. Randej Sharma
3. Amit Purohit

Representative of GP & Villagers.

1. Abdul Momin
- 2) লক্ষ্মী কুমার
- 3) গাফেল গান্ধী
- 4) কৈলাস গোস্বামী
- 5) সুদে/শিবানন্দ (স)
- 6) Modu Nirala
- 7) জগমুখ
- 8) Shakeel Ahmed
- 9) আলী হুদা
- 10) সত্যজি গান্ধী
- 11) নবজয়ন গোস্বামী
- 12) প্রদীপ কুমার
- 13) লক্ষী কুমার গান্ধী
- 14) ই. কৌজালী
- 15) জগীষ গান্ধী

APDCL

- 1) Nityamanda Doley
SM, TESO
- 2) Alloz Hussain

M O M

A public consultation has been organised at Anganwari Kendra, Jahajduba in presence of the following participants to discuss / aware about the construction of 33 kv new line connecting 132/33 kv Tezpur new ss to 33/11 kv existing Porowa ss under NERPSIP, funded by World Bank. on 26.04.2017.

<u>POWERGRID</u>	<u>APDCL</u>	<u>MP. NECCON</u>	<u>Villagers</u>
1. G. Hogue Sr. Engg.	1. N. N. de roby / PM, TESO	1) Bijil - Jamba	1) नुसख हुरगुन
2. N. N. K. Wade	2. D. D. Hassan	2) Randeir Sharma	2) बाबुबाई किलोठ
3. M. Rahman.			3) 2 बाबुबाई किलोठ
			4) प्रबुबाई किलोठ
			5) Ab: W. D. Kish
			6) Jahidul
			7) मुठ जमीनी
			8) इबमवर्ष
			9) नुसख हुरगुन देवगठ
			10) फुलेहा झापुल
			11) बखन देवगठ
			12) बुबुल दास
			13) जाद्विद जामिनी



Public Consultation Meeting on 05/11/2017 for construction of 33kV line from Tezpur 132kV New SS to LGM 33kV New SS



Public Consultation Meeting on 05/11/2017 for construction of 33kV line from Tezpur 132kV New SS to LGM 33kV New SS



Public Consultation Meeting on 05/11/2017 for construction of 33kV line from Tezpur 132kV New SS to LGM 33kV New SS



Public Consultation Meeting on 05/11/2017 for construction of 33kV line from Tezpur 132kV New SS to LGM 33kV New SS

PUBLIC AWARENESS MEETING

Subject : Construction of 33kV Lines from 132/33 kV TANGLA(new) S/S to 33/11 kV TANGLA(Existing)S/S, 33/11 kV PANERI(Existing) S/S, 33/11 kV HARISINGA(new)S/S under North Eastern Region Power System Improvement Project(NERPSIP), a World Bank funded scheme.

Venue : Tangla College Stadium,Vill-Uttar Jangalpara, P.O.-Tangla, Dist.-Udalguri ,Assam

Date & Time : 23/08/2017, 2:00 pm onwards.

A public meeting was held at Tangla College Stadium, Vill-Uttar Jangalpara,P.O.-Tangla, Dist.-Udalguri ,Assam on 23rd August 2:00 pm onwards to apprise the public about Construction of new 33kV Lines from 132/33 kV TANGLA(new) S/S to 33/11 kV TANGLA(Existing)S/S, 33/11 kV PANERI(Existing) S/S,33/11 kV HARISINGA(new)S/S under North Eastern Region Power System Improvement Project(NERPSIP), a World Bank funded scheme and also to discuss the various issues associated with the proposed 33kV lines. The meeting held in the presence of representative from Assam Power Distribution Company Limited along with officers of Power Grid Corporation of India Limited and public of the nearby areas.

The meeting started with a introduction of the conducting officers and detailed overview by Power Grid Officials on the necessity of the NERPSIP Project, benefits of the project for the general public, various environment and socio-economic issues, various compensation related issues etc. A leaflet termed "PROJECT SUMMARY" was also handed over to all the attendees of the meeting. Subsequently, after the brief from Power Grid and APDCL officials, it was requested to raise project related issues from the attendees so that appropriate clarification can be provided from the project proponent.

In this regard, various issues were raised by the public for proper execution of the project in their locality. The various issues raised were:

- Proper intimation to respective Land owner(s) prior to constructional activities on his/her land.
- Proper and uniform payment of compensation to all the land owners where damage is incurred during construction of the line.
- To engage the local people in constructional activities wherever possible.

Officials from Power Grid Corporation Of India Ltd and Assam Power Distribution Company Limited (APDCL) assured that all the genuine issues raised by the public will be taken care of during execution of the project and also suitable compensation will be paid for any damages caused during implementation of the project. Subsequently, all the attendees unanimously accepted the need for implementation of the project which will benefit the common public.

The meeting concluded with a request to all for providing full support while implementation of the project and a vote of thanks to the public and other officials for attending the meeting.

A Public consultation meeting has been organised at Jangla College field (Stadium), Jangla in presence of following participants to discuss/aware about the construction of 35 KV new line connecting 132/33 KV Jangla New SIS to 33/11 KV existing Paneri, Jangla and 33/11KV Harisingha (New) SIS on 23.08.17 under NERPSIP, funded by World Bank.

POWER GRID

1. Santanu Dasgupta
2. Abhishek Ghosh
3. Debajit Chakrabarti
4. Sanku Chakrabarti
5. Sanku Chakrabarti

M/S STERLING & WILLSON

1. Subankar Saha
2. Arjit Khan

APDCL

1. Ratan Mondal Kumar

VILLAGE REPRESENTATIVE SIADPURHA

1. Pradyumn Narayan Rabha
2. Nilali Baro
3. Bipul Barua Rabha
4. Ranuj Kumar Singh
5. Karuna K. Baro
6. Habas Kuroomi, Anandhusa para, 23.8.17
7. Bhadrachar Baro
8. Bibanta Sankar
9. श्री रामचंद्र शर्मा
10. श्री विजय शर्मा
11. श्री अमित शर्मा
12. श्री विजय शर्मा
13. श्री अमित शर्मा

Village Representative & Grass Bank

14. Bikash Borahar.
15. गुरुदेव झा
16. Kulm Borahar
17. श्री नरेश्वर झा.
18. Subhash Deimari
19. Bipul - Baro
20. Anil Baro
21. Anu Deimari
22. GSA Baro
23. Ramnarayan Baro
24. Soumyajit Baro



PUBLIC AWARENESS MEETING

Subject: Construction of 33 KV lines from 132/33 KV TANGLA (new) S/S to 33/11 KV KALAIGAON (Existing) S/S and 33/11 KV KHOIRABARI (Existing) S/S Under North Eastern Region Power System Improvement Project (NERPSIP), a World Bank Funded Scheme.

Venue : Tokankata, Kalaigaon, P.O. Kalaigaon, Dist.Udalguri, Assam

Date & Time : 27/11/2017, 2.00PM Onwards

A public meeting was held at Tokankata, Kalaigaon, P.O. Kalaigaon, Dist.-Udalguri , Assam on 27th November, 2017, 2:00 pm onwards to apprise the public about Construction of new 33kV Lines from 132/33 kV TANGLA(new) S/S to 33/11 kV KALAIGAON (Existing)S/S and 33/11 KV KHOIRABARI (Existing) S/S under North Eastern Region Power System Improvement Project (NERPSIP), a World Bank funded scheme and also to discuss the various issues associated with the proposed 33kV lines. The meeting held in the presence of representative from Assam Power Distribution Company Limited along with officers of Power Grid Corporation of India Limited and public of the nearby areas.

The meeting started with a Introduction of the conducting officers and detailed overview by Power Grid Officials on the necessity of the NERPSIP Project, benefits of the project for the general public, various environment and socio-economic issues, various compensation related issues etc. A leaflet termed "PROJECT SUMMARY" was also handed over to all the attendees of the meeting. Subsequently, after the brief from Power Grid and APDCL officials, it was requested to raise project related issues from the attendees so that appropriate clarification can be provided from the project proponent.

In this regard, various issues were raised by the public for proper execution of the project in their locality. The various issues raised were:

- Proper intimation to respective Land owner(s) prior to constructional activities on his/her land.
- Proper and uniform payment of compensation to all the land owners where damage is incurred during construction of the line.
- To engage the local people in constructional activities wherever possible.

Officials from Power Grid Corporation Of India Ltd and Assam Power Distribution Company Limited (APDCL) assured that all the genuine Issues raised by the public will be taken care of during execution of the project and also suitable compensation will be paid for any damages caused during implementation of the project. Subsequently, all the attendees unanimously accepted the need for implementation of the project which will benefit the common public.

The meeting concluded with a request to all for providing full support while Implementation of the project and a vote of thanks to the public and other officials for attending the meeting.

A public consultation meeting has been organised at Tokankata, Kalaigaon in presence of following participants to discuss/aware about the construction of 33KV new line connecting 132/33 KV Tangra New SIS to 33/11 KV existing Kheirakali and 33/11 KV existing Kalaigaon SIS on 27.11.17 under NERPSIP, funded by World Bank.

POWER GRID



APDCL

LSO (A.K. BORA) / SDE, KLR ESD

VILLAGE REPRESENTATIVE & GAON BURHA

- 1) Simbarbar (A/B)
- 2) Sai Karand: Saka (A/B)
- 3) ...
- 4) ...
- 5) ...
- 6) ...
- 7) ...
- 8) ...
- 9) ...
- 10) ...
- 11) ...
- 12) ...
- 13) ...

Village representative & Gaon Burha

- 1) ...
- 2) ...
- 3) ...
- 4) ...
- 5) ...
- 6) ...
- 7) ...
- 8) ...
- 9) ...
- 10) ...
- 11) ...
- 12) ...
- 13) ...
- 14) ...
- 15) ...
- 16) ...
- 17) ...
- 18) ...
- 19) ...
- 20) ...
- 21) ...
- 22) ...
- 23) ...
- 24) ...
- 25) ...
- 26) ...
- 27) ...
- 28) ...

Public awareness meeting for 33kv lines of ASM-DMS-03 package under NERPSIP,Mangaldoi held at Tokankata, Kalaigaon



PUBLIC AWARENESS MEETING

Subject: Construction of 33kV line from 132kV Hajo(Kulhati) S/S to 33/11kv New Sesa S/S under North Eastern Region Power System Improvement Project (NERPSIP), a World Bank funded Scheme.

Venue: 3 No Kulhati Primary School field.

Date: 18/11/2017, Time: 3.00pm.

A public awareness meeting was held at 3 No Kulhati primary school field, Dist: Kamrup, Assam on 18th Nov 2017 from 3.00 pm onwards to apprise the public about construction of New 33kv line from 132kV Hajo (Kulhati) S/S to 33/11kV new Sesa S/S under North Eastern Region power system improvement project (NERPSIP) a World Bank funded Scheme and also to discuss the various issues associated with the proposed 33kv line. The meeting is chaired by Sh. Kamal Baruah, CO (Circle officer), Hajo in the presence of representative from Assam power Distribution Company Limited along with officers of power Grid Corporation of India Ltd and public of the nearby areas.

The meeting started with an introduction of chief guest Sh. K. Baruah, CO, Hajo Circle who explain very nicely the purpose of the meeting and importance of the projects in his address. He assured public that adequate compensation will be paid for Zirat damage during construction of 33kV lines. He also seek co-operation from the public for smooth construction of the project. Sh. KC Barman, DGM, POWERGRID & Sh. J. Baishya, AGM, APDCL also address the public on the necessity of the NERPSIP project, benefits of the project for the general public, various environmental and socio-economic issues, safety aspect, compensation related issue etc. A leaflet termed "PROJECT SUMMARY" was also handed over to all the participants of the meeting.

In this regard following issues have been raised by the public for execution of the project in their locality.

- Proper payment of compensation to all the land owners where damage will occur during construction of the line.
- Proper safety of public/house and sufficient height to be maintained during construction. LT/HT Transformer location to be barricaded for safety of Public.
- To engage the local people in the construction activities wherever possible.

Officials from Power Grid Corporation of India Ltd and Assam Power Distribution Company Limited (APDCL) assured that all the genuine issues raised by the public will be taken care during execution of the project and suitable compensation will be paid for any damage caused during construction of the project. Subsequently, all the participants unanimously and accepted the need for implementation of the projects which will benefit the common public.

The meeting concluded with a request to all for providing full support during impletion of the project and a vote of thanks to the chief guest, public and other officials for attending the meeting.

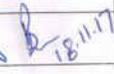
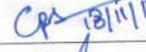
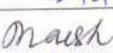
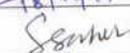
Encls: List of Participants-3 page

LIST OF PARTICIPANT

PUBLIC CONSULTATION MEETING FOR CONSTRUCTION OF 33 KV TRANSMISSION LINE FROM 132/33KV HAJO S/S (KULHATI) TO 33KV SESA S/S UNDER NERPSIP FUNDED BY WORLD BANK.

Date:-18/11/2017

VENUE:-3NO KULHATI PRIMARY SCHOOL.

Sl.No	Name	Signature	Remarks
1	Sh. Kamal Baruah, SDC(C), Hajo	 18/11/17	SDC(C), Hajo (Chief Gmt)
2	Sh. K. C. Barman,		DGM/Potwar Gmt
3	Sh. J. Beishya	 18/11/17	Asst GM (APDCL)
4	Sh. C.P. Sarma	 18/11/17	SDE, APDCL, Hajo
5	Sh. A R Das	 18/11/17	Mgr. PGCL, Aungam
6	Sh. Deepdyoti Baruah	—	Dy Mgr (ESMD), Ghy
7	Sh. Potash Kharzaniata		DM (PGCL), Aung
8	Sh. Kamala Das	 18/11/17	JE (APDCL), Aungam
9	Sh. Manish Gogoi		FE (PGCL), Aung
10	Sh. B. Jha	 18/11/17	FS, PGCL, Aungam
11	Sh. S. Sabaria		Villager
12	Sh. Abhijit Khan.		P.E (S&W)
13	Sh. Nikul Kalita		
14	Dipjyoti Baruah		Dy Manager. PGCL
15	Nikul Kalita.		
16	Subemenda Das		
16	Rhagen Das.		
17	Subhankar Saha		St. Engineer (S&W)
18	Uchal Kr. Datta		Plt. Engineer (NR)
19	Sandeep Chowdhury		Civil Engineer (S&W)
20	Rajesh Mondal		Safety officer (S&W)

LIST OF PARTICIPANT

PUBLIC CONSULTATION MEETING FOR CONSTRUCTION OF 33 KV TRANSMISSION LINE FROM 132/33KV HAJI S/S (KULHATI) TO 33KV SESA S/S UNDER NERPSIP FUNDED BY WORLD BANK,

Date:-18/11/2017

VENUE:-3NO KULHATI PRIMARY SCHOOL.

Sl.No	Name	Signature	Remarks
21	Sri Sabita Das	Sri Sabita Das	
22	श्री उमा माझ	श्री उमा माझ	
23	श्री सुमती दास	श्री सुमती दास	
24	श्री निमाति दास	Sri Binimati Kalita Das	
25	Sri Sanisha Purna Das	J.Pan	
26	Sri Banamita Das	B. Das	
27	श्री उमा माझ	श्री उमा माझ	
28	Sri Binimati Kalita Das.	श्री निमाति दास	
29	Sri Barasha Das	Sri Barasha Das	
30	Sri Kalpna Das.	Sri Kalpna Das.	
31	श्री उमा माझ	श्री उमा माझ	
32	श्री निमाति दास	श्री निमाति दास	
33	श्री निमाति दास	श्री निमाति दास	
34	श्री निमाति दास	श्री निमाति दास	
35	श्री निमाति दास	श्री निमाति दास	
36	Sruvaba Das	Sruvaba Das	
37	Sh. Ranesh Deka	Sh. Ranesh Deka	
38	Uchhal Deha	Uchhal Deha	
39			
40			

LIST OF PARTICIPANT

PUBLIC CONSULTATION MEETING FOR CONSTRUCTION OF 33 KV TRANSMISSION LINE FROM 132/33KV HAJI S/S (KULHATI) TO 33KV SESA S/S UNDER NERPSIP FUNDED BY WORLD BANK,

Date:-18/11/2017

VENUE:-3NO KULHATI PRIMARY SCHOOL.

Sl.No	Name	Signature	Remarks
39	Sri Binish Ch. Das	Sri Binish Ch. Das	
40	श्री उमा माझ	श्री उमा माझ	
41	Sri Anil Das.	Sri Anil Das.	
42	Hemen Lahkar	Hemen Lahkar	
43	Tilak Ch. Das.	Tilak Ch. Das.	
44	श्री उमा माझ	श्री उमा माझ	
45	Tanujwar Das	Tanujwar Das	
46	Sadomanda Deka	Sadomanda Deka	
47	Mumukha Das.	Mumukha Das.	
48	श्री उमा माझ	श्री उमा माझ	
49	श्री उमा माझ	श्री उमा माझ	
50	श्री उमा माझ	श्री उमा माझ	
51	श्री उमा माझ	श्री उमा माझ	
52	श्री उमा माझ	श्री उमा माझ	
53	Khagan Das.	Khagan Das.	
54	Nikul Kalita	Nikul Kalita	
55	Gurrajit Das.	Gurrajit Das.	
56	Ucal Das.	Ucal Das.	
57	Sushanta Saha	Sushanta Saha	
58	Sandip Chowdhury	Sandip Chowdhury	
59	Rajesh Kumar	Rajesh Kumar	
60	Syowin Koch	Syowin Koch	