

Semi-Annual Environment & Social Safeguard Monitoring Report

(Reporting Period: Up to December 2019)

High Capacity Energy Transmission Project



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ABBREVIATIONS

ADB		Asian Development Bank
CFC	–	Chlorofluorocarbons
CTU	–	Central Transmission Utility
EMF	–	Electro Magnetic Fields
EMP	–	Environment Management Plan
ESMD	–	Environment & Social Management Department
ESPP	–	Environmental and Social Policy & Procedures
GoI	–	Government of India
GRC	–	Grievance Redressal Committee
GRM	–	Grievances Redressal Mechanism
GW	–	Giga Watt
Ha.	–	Hectare
HVDC	-	High Voltage Direct Current
ICNIRP		International Commission on Non-Ionizing Radiological Protection
KfW	–	Kreditanstalt für Wiederaufbau
LILO		Loop-In Loop-Out
km	–	Kilometer
MoEFCC	–	Ministry of Environment, Forest and Climate Change
RMoEFCC		Regional Office of Ministry of Environment, Forest and Climate Change
PMU	–	Project Management Unit
PG/ POWERGRID	–	Power Grid Corporation of India Ltd.
PS		Polling Station
PPEs		Personal Protective Equipments
R&R	–	Rehabilitation & Resettlement
RoW	–	Right of Way
S/s/SS	–	Substation
TL/T/L		Transmission Line
TN		Tamil Nadu
VSC		Voltage Source Converter

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SECTION 1: INTRODUCTION

Power Grid Corporation of India Ltd. (POWERGRID), the Central Transmission Utility (CTU) of the country, is engaged in power transmission with the mandate for planning, co-ordination, supervision and control over complete Inter State Transmission System. It has been contributing significantly towards development of Indian power sector by undertaking coordinated development of power transmission network along with effective and transparent operation of regional grids and through continuous innovations in technical & managerial fields. As on December 31, 2019, POWERGRID operates a Grid network consisting of 1,63,222 ckm of transmission line and 248 associated substations having a transformation capacity of 4,02,242 MVA, while ensuring a system availability of more than 99%.

With an aim to further strengthen the transmission network of the country, POWERGRID and KfW signed the loan agreement for Euro 200 Millions on 28th December 2018 to finance various transmission projects being undertaken by POWERGRID.

The measurable benefits of the project include;

- 1) Enhanced transmission capacity of around 6000 MW through the implementation of ± 800 KV HVDC Raigarh- Pugalur link;
- 2) Increased transmission capacity of around 2000 MW through establishment of VSC based ± 320 KV HVDC link between Pugalur and North Trichur;
- 3) Increase of transmission capacity by around 4000 MW in selected areas of North-Eastern region, Northern region, Western region, Southern region, and eastern region through various transmission projects and increased voltage system stability.

1.1 OVERALL PROJECT DESCRIPTION

The components of the High Capacity Energy transmission Project include:

- 1) HVDC Bipole Link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, Tamilnadu) - North Trichur (Kerala) - Scheme 1: Raigarh -Pugalur 6000 MW HVDC System (only HVDC Lines, but including conductor packages);
- 2) HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, TM) - North Trichur (Kerala) - Scheme-III: Pugalur-North Trichur VSC (Except Terminal Poles);
- 3) Transmission System Strengthening in Indian System for Transfer of Power from Mangdechhu Hydroelectric Project in Bhutan;
- 4) System Strengthening Scheme in Northern Region – XXXVII;
- 5) Eastern Region Strengthening Scheme-XVII (Part-B);
- 6) 400KV D/C Baharampur (PG) - Bheramara (B'desh) line (IInd Ckt) - India portion;
- 7) System Strengthening Schemes at Tuticorin-II (erstwhile Tirunelveli GIS) & Bhuj PS;
- 8) Implementation of 500MVA Thyristor Controlled Reactor at Kurukshetra 400kV bus;
- 9) Transmission System for Solar Energy Zones in Rajasthan.

1.2 PROJECT OBJECTIVES

The broader goal of the project is to contribute towards a broad based, technically and economically efficient & socially and ecologically sustainable electricity supply in India. The specific objectives of the project include securing growing power demand of the country, to enhance the stability and reliability of the power transmission system and energy security of India.

1.3 SAFEGUARD PERFORMANCE/COMPLIANCE INDICATORS

The following parameters which are considered as key indicators for this project require regular monitoring to evaluate the safeguard performance;

1. The borrowers shall at all times carry out its business and operations in compliance with all applicable national environmental, occupational health & safety and social laws & regulations.
2. The Borrower shall be responsible for the preparation, implementation and operation of the project in compliance with the Borrower's Environmental and Social Policy & Procedures (ESPP), the ADB Safeguard Policy Statement and Environment Management Plans derived for each of the subprojects, which have also been made part of project specific Initial Environment Assessment reports (IEARs) and contract document.
3. Regarding the environmental and social standards, special attention has been and will be accorded to:
 - a) Identify environmentally and socially sensitive areas such as among others, Right of Ways (RoW) issues, natural reserves, forests, riparian areas, wetlands, mountains, critical wildlife habitats and geologically sensitive areas
 - b) Application of protective measures for birds against collisions (markings of lines), especially in the proximity of river crossings and water bodies
 - c) Keeping of the benchmarks established by the International Commission on Non-Ionizing Radiological Protection (ICNIRP) on electro-magnetic fields in cases where transmission comes closely to settlements.
 - d) Application of enhanced compensation in all states where the state governments have adopted/ratified the Ministry of Power (MoP), Government of India guidelines of Oct' 15 on RoW compensation.

1.4 OVERALL PROJECT PROGRESS, AGREED MILESTONES & COMPLETION SCHEDULE

Name of Project	Project Details	Progress as on Dec., 2019 (in %)	Completion Schedule
HVDC Bipole Link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, Tamilnadu) - North Trichur (Kerala) - Scheme 1: Raigarh-Pugalur 6000 MW HVDC	± 800 kV Raigarh (HVDC Station) – Pugalur (HVDC Station) HVDC Bipole link	Foundation: 99.95 % Erection: 98.86 % Stringing: 89.29 %	May 2020

System (only HVDC Lines, but including conductor packages)			
HVDC Bipole Link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, Tamilnadu) - North Trichur (Kerala) - Scheme-III : Pugalur-North Trichur VSC (Except Terminal Poles)	Establishment of VSC based 2000 MW HVDC link between Pugalur and North Trichur (Kerala)- Overhead 320kV HVDC line.	Foundation: 59.85% Erection: 43.65% Stringing: 0%	April, 2020
	LILO of North- Trichur – Cochin 400 kV (Quad) D/C Line at North Trichur HVDC Station	Foundation: 100% Erection: 0% Stringing: 0%	April, 2020
Transmission System Strengthening in Indian System for transfer of power from Mangdechhu Hydroelectric Project in Bhutan	Jigmeling - Alipurduar 400kV D/C(Quad) TL (Indian portion)	Foundation: 79.34% Erection: 73.69% Stringing: 37.65%	May, 2020
System Strengthening Scheme in Northern Region-XXXVII (NRSS- XXXVII)	LILO of both ckt of 400KV Dhauliganga - Bareilly line at Jauljivi	Foundation: 23.07% Erection: 0% Stringing: 0%	June, 2020
	Diversion of Dhauliganga - Bareilly 400KV D/C line (operated at 220KV) at Bareilly end from Bareilly (UP) to Bareilly (PG) line	Foundation: 100 % Erection: 96.29 % Stringing: 62.5 %	June, 2020
	Disconnection of 220Kv LILO arrangement of Dhauliganga-Bareillyat Pithoragarh& connecting it to Jauljivi SS at 220 kV level	Foundation: 37.33 % Erection: 13.33 % Stringing: 0 %	June, 2020
	400/220KV Jauljivi (GIS) Sub station	Civil works: 80% Equipment Supply: 70% Erection: 34%	June, 2020
	Extn at 765/400KV Bareilly Sub station	Civil works: 90% Equipment Supply: 90% Erection: 85%	June, 2020

Eastern Region Strengthening Scheme- XVII (Part-B)	Extn. at 400/220KV Gaya S/stn.	Civil works: 100% Equipment Supply: 100% Erection: 100%	March, 2020
	Extn. at 400/220KV New Siliguri S/s (3rd ICT)	Civil works: 97% Equipment Supply: 100% Erection: 90%	
	Extn. at 400/220KV Durgapur S/s (3rd ICT)	Civil works: 100% Equipment Supply: 100% Erection: 100%	
	Extn. at 400/220KV Jeypore S/stn.	Civil works: 80% Equipment Supply: 80% Erection: 50%	
	Extn. at 400/220KV Rourkela S/stn.	Civil works: 90% Equipment Supply: 90% Erection: 60%	
	Repl. of 400/220KV Malda S/st. (2x315MVA to 2x500 MVA)	Civil works: 80% Equipment Supply: 90% Erection: 50%	
	Extn. at Maithon (PG) and Maithon (RB)	Civil works: 75% Equipment Supply: 90% Erection: 50%	
	Bypassing arrangement of LILO of 400KV lines at Angul.	Civil works: 100% Equipment Supply: 100% Erection: 98%	
Baharampur (POWERGRID) Bheramara (Bangladesh) 2nd 400kV D/c line (Indian Portion)	400KV D/C Baharampur (PG) - Bheramara (B'desh) line (IInd Ckt) - India portion	Foundation: 99.19% Erection: 98.39% Stringing: 81.60%	March, 2020
	Extn. at 400KV Baharampur S/stn.	Civil works: 95% Equipment Supply: 95% Erection: 85%	
System Strengthening Schemes at Tuticorin-II (erstwhile Tirunelveli GIS) and Bhuj PS	Augmentation at 400/230 KV Tuticorin-II (GIS) S/S	Civil works: 70% Equipment Supply: 60% Erection: 10%	June, 2020
	Augmentation at 765/400/220 KV Bhuj S/S	Civil works: 47% Equipment Supply: 30% Erection: 25%	
Implementation of 500MVAR Thyristor Controlled Reactor at Kurukshetra 400kV bus	500MVAR Thyristor Controlled Reactor (TCR) at 400 kV Kurukshetra -1 No.	Civil works: 15% Equipment Supply: 0% Erection: 0%	July, 2021
Transmission System for Solar Energy Zones in Rajasthan.	LILO of both circuits of Ajmer - Bikaner 765kV D/c line at Bhadla-II PS	Foundation: 33.98% Erection: 4.21% Stringing: 0%	December, 2020
	400kV D/C Bhadla-II PS - Bhadla (PG) (Twin HTLS)	Foundation: 33.98% Erection: 0% Stringing: 0%	

	LILO of both circuits of Fatehgarh (TBCB) - Bhadla (PG) 765 kV D/c line (operated at 400kV) at Fatehgarh-II PS so as to establish Fatehgarh (TBCB) – Fatehgarh-II 765kV D/C line (to be operated at 400kV) and Fatehgarh-II-Bhadla (PG) 765kV D/C line	Foundation: 5.55% Erection: 0% Stringing: 0%	
	Establishment Bhadla-II, Substation	Civil works: 5% Equipment Supply: 0% Erection: 0%	
	Establishment Fatehgarh-II, S/s	Civil works: 3% Equipment Supply: 0% Erection: 0%	
	Extn. of 765/400/220 KV Bhadla (PG) S/S	Civil works: 0% Equipment Supply: 0% Erection: 0%	
	Extn. of 765/400 KV Bhiwani (PG) S/S	Civil works: 0% Equipment Supply: 0% Erection: 0%	

SECTION 2: STATUS OF COMPLIANCE

2.1 ENVIRONMENTAL COMPLIANCE

The compliance status with respect to applicable regulations is presented below in **Table 1**.

Table 1: Compliance status with applicable Environmental Regulations

S N	Legal Requirements	Applicable Attributes	POWERGRID's Compliance Status
1	Forest (Conservation) Act, 1980	This Act is applicable whenever a transmission line traverses through forest area. Prior approval from Ministry of Environment, Forests and Climate Change (MoEFCC), GoI is needed for starting construction of line in forest areas.	Detailed forest clearance status is presented in Table-1.1 .
2	Wildlife (Protection) Act, 1972	After Hon'ble Supreme Court order dated 14.02.2000, transmission lines passing through protected areas like National Parks, Wildlife Sanctuary and other Eco sensitive area require prior permission from National Board for Wildlife (NBWL) for starting of work within protected areas.	In the instant case, four nos. of Transmission Lines i.e. ± 800 kV Raigarh- Pugalur, ± 320 kV HVDC Pugalur-North Trichur TL, 400 kV D/C Jigmeling-Alipurduar TL and LILO of both circuits of Ajmer-Bikaner 765kV D/c line at Bhadla-II PS are passing through Protected Areas. Details of wildlife clearance status is provided in Table-1.1 .
3	Ozone Depleting Substances (Regulation and Control) Rules, 2000	Controls and regulations specified on manufacturing, import, export, and use of CFC compounds.	Necessary provisions have been made in contract document for restricting the use/supply of CFC compounds.
4	Batteries (Management and Handling) Rules, 2001	To avoid/minimize lead pollution, Bulk consumers shall have the responsibility to dispose all used batteries to dealers, manufacturer, registered recycler, reconditioners or at the designated collection centres only. Half-yearly return (Form-8) for the same is to be submitted to the concerned State Pollution Control Board.	Since the subprojects covered under the loan are yet to be commissioned, no used batteries have been replaced so far.
5	Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016	As per the notification, used mineral oil is categorized as hazardous waste and requires proper handling, storage and disposal only to authorized disposal facility (registered recyclers/ re-processors). Annual return (Form -4) for the same is to be submitted to the concerned State Pollution Control Board.	Transformer oil (Used mineral oil) is changed only after 10-15 years of operation. Since the subprojects covered under the loan are yet to be commissioned, oil change/ replacement is not envisaged at present.

Table – 1.1: Details of Forest & Wildlife Clearance Status

Sl	Name of Line	Forest (Ha.) /State	Status
1	HVDC Bipole Link between Western Region (Raigarh, Chhattisgarh) & Southern Region (Pugalur, Tamilnadu) - North Trichur (Kerala) - Scheme 1 : Raigarh - Pugalur 6000 MW HVDC System (only HVDC Lines, but including conductor packages)		
i	800 kV HVDC Raigarh- Pugalur line	Maharashtra: (432.679 ha.) (including 25.149 ha Tiger corridor)	Stage-I issued on 05.09.18. Working permission issued on 31.10.18. Tiger Corridor (25.149 ha.): Proposal recommended in NBWL meeting held on 18.07.19. Minutes of meeting issued on 29.08.19.
		Andhra Pradesh: (64.23 ha.)	Stage-I issued on 10.09.18. Working permissions issued on 27.11.18, 28.11.18, 28.11.18 & 04.12.18 respectively.
		Telangana (20.53 ha.)	Stage-I issued on 05.04.18. Working permission issued on 25.05.18.
		Tamil Nadu (9.12 ha.)	Stage-I issued on 07.06.18. Working permission for Dharmapuri division issued on 18.10.2019 and is awaited for Vellore division.
2	HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, TM) - North Trichur (Kerala) - Scheme-III: Pugalur- North Trichur VSC (Except Terminal Poles)		
i	VSC based 2000 MW HVDC link (320 kV) between Pugalur and North Trichur	Kerala (0.244 ha. Including 0.098 ha WL)	Thrissur Division (0.146 ha) & Peechi Wildlife Sanctuary (0.098 ha): NBWL recommendation on 08.02.18. Stage-I issued on 09.10.18. Stage-II issued on 24.09.2019.
ii	LILO of North Trichur-Cochin 400kV (Quad) D/C line at North Trichur HVDC Station	Nil	No forest area involved.
3	Transmission System Strengthening in Indian System for transfer of power from Mangdechhu Hydroelectric Project in Bhutan		
i	400 kV D/c Jigmeling - Alipurduar	Assam (208.807 ha. WL)	Stage-I issued on 18.10.18. Working permission issued on 30.01.19 and 01.02.19 respectively. NBWL recommended for wildlife obtained on 26.09.18.
		WB (Nil)	No forest area involved.
4	System Strengthening Scheme in Northern Region-XXXVII (NRSS-XXXVII)		
i	LILO of both ckt of 400kV Dhauliganga-Bareilly (PG) line (presently charged at 220 kV) at 400/220kV Jauljivi substation & disconnection of 220kV LILO arrangement of Dhauliganga-Bareilly at Pithoragarh & connecting it to Jauljivi SS at 220 kV level	Uttarakhand (58.449 ha.)	Stage-I issued on 31.10.2019. Working permission issued on 23.12.2019.

ii	Diversion of Dhauliganga-Bareilly 400 KV D/C line (operated at 220 KV) at Bareilly end from Bareilly (UP) to Bareilly (PG)	Uttar Pradesh (0.115 ha.)	Proposal forwarded to State Government on 26.11.2019.
5	Baharampur (POWERGRID) Bheramara (Bangladesh) 2nd 400kV D/c line (Indian Portion)		
i	400 kV D/C Baharampur-Bheramara	Nil	No forest area involved.
6	Transmission System for Solar Energy Zones in Rajasthan.		
i	LILO of both circuits of Ajmer-Bikaner 765kV D/c at Bhadla-II PS	Rajasthan (1.7778 ha.)	Forest Proposal submitted online on 28.01.2020.
ii	400kV D/C Bhadla-II PS - Bhadla (PG)	-	Forest area to be ascertained after completion of detailed survey.
iii	LILO of both circuits of Fatehgarh (TBCB) - Bhadla (PG) 765 kV D/c line (operated at 400kV) at Fatehgarh-II PS so as to establish Fatehgarh (TBCB) – Fatehgarh-II 765kV D/C line (to be operated at 400kV) and Fatehgarh-II-Bhadla (PG) 765kV D/C line	-	Forest area to be ascertained after completion of detailed survey.

The clearance/approval letters are provided at Appendix-I.

2.2 SOCIAL COMPLIANCE

2.2.1 Substation Land:

Details of land required for proposed substations, land status and social compliance are provided in following table;

Table 2: Details of Substation Land

S. N	Name of Substation	Area (acre)	Location	Type of Land	Land Status	Social Compliance
1.	400/220 kV GIS (New) substation at Jauljivi	11.104	The land is located at Bagrihat village in Pithoragarh district. Co-ordinates: 29°44'40"N 80°21'30"E	Private	Private land purchased through willing buyer-willing seller basis on negotiated rate.	As the land for substation is purchased on willing buyer-willing seller basis on negotiated rate, no involuntary acquisition is involved.

Additionally, extensions/augmentations of various substations such as 765/400 kV Bareilly, 400/220 kV Gaya, 400/220 kV New Siliguri, 400/220 kV Durgapur, 400/220 kV Jeypore, 400/220kV Rourkela, 400/220 kV Malda, 400/230 kV Tuticorin, 400/220 kV Baharampur, 765/400/220 kV are proposed under the project, for which sufficient land is available in the campus of existing substations. Hence, there is no need for arranging/acquiring fresh land.

A summary of the environmental & social mitigation measures, their monitoring vis-à-vis compliance by POWRGRID's is given in **Table-5**.

2.2.2 `Compensation for Tree/crop damages:

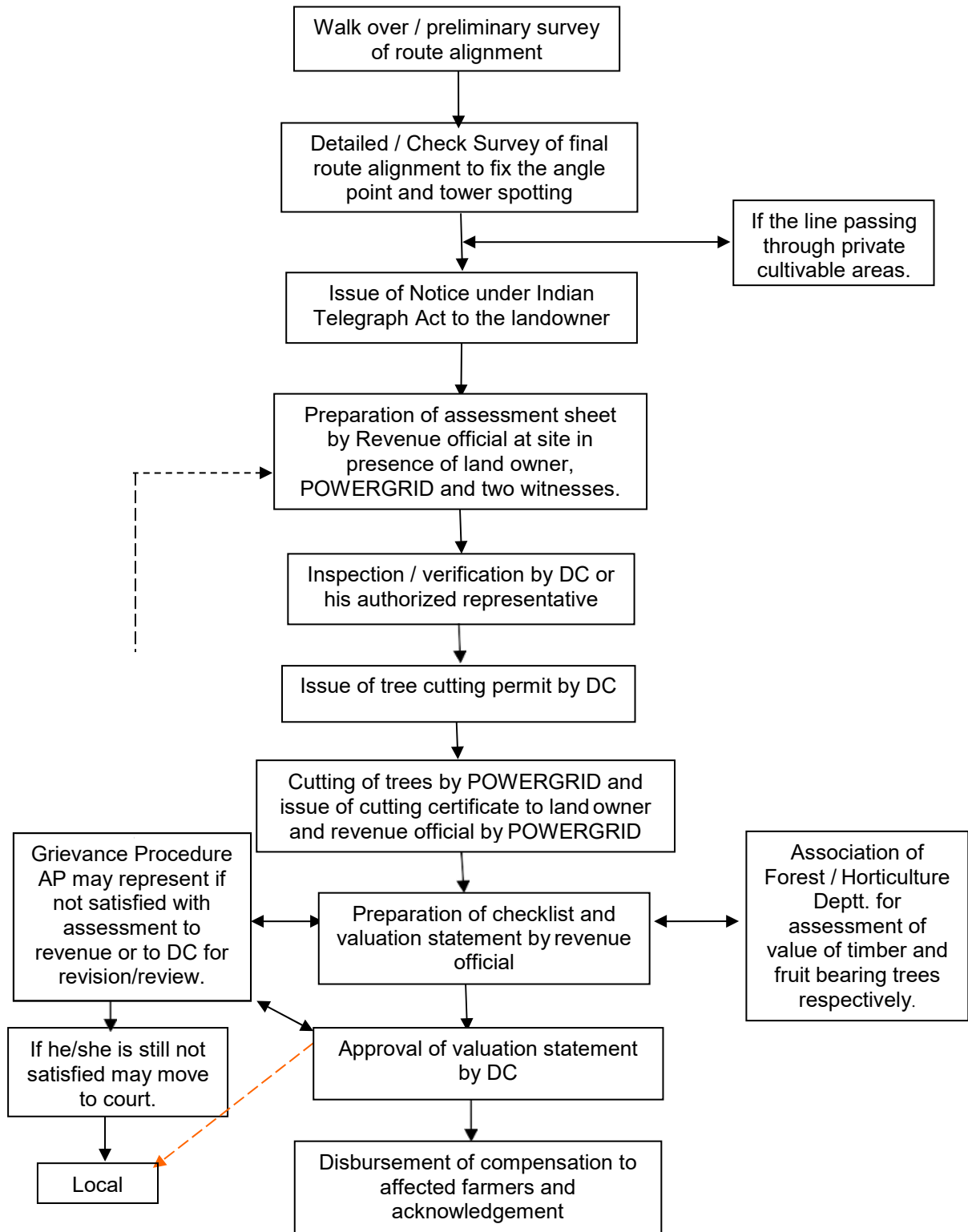
POWERGRID follows the principle of Avoidance, Minimization and Mitigation in construction of Transmission Lines. Due to inherent flexibility in phasing the construction activities, it tries to defer/avoid construction in cropped area/season to facilitate crop harvesting while passing through agricultural fields. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. The process of tree/crop compensation is depicted in **Figure 1**. All efforts are also taken to minimize the crop damage to the extent possible in such cases. In the instant project also POWERGRID is taking all possible measures 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 is allowed after the construction work is completed. However, compensation for the loss of crops/trees/any structure etc. paid to Affected Persons (APs) for the area of damage to mitigate the impacts up to 3 times i.e. during foundation work, tower erection & stringing as per the prevailing situation. Details of line wise compensation paid for Tree & Crop damages is given in **Table- 3**:

Table 3: Details of Crop & Tree compensation

Sl. No.	Name of the Line	No. of Persons issued notice	Affected Land Area (Ha.)	Nos. of Tree affected	Compensation Paid for crop damages (Rs Lakh)			Compensation Paid for Tree damages (Rs lakh)		
					Foundation	Erection	Stringing	Foundation	Erection	Stringing
1	Baharampur (PG) – Bheramara 400 KV D/C line	9173	375	15521	198.53	233.7	298.49	0.3	0.17	135.82
2	LILO of both ckt of 400KV Dhauliganga - Bareilly (PG) line at Jauljivi	NIL	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Diversion of Dhauliganga-Bareilly 400KV D/C line (operated at 220KV) at Bareilly end from Bareilly (UP) to Bareilly (PG) line	42	7.11	Nil	9.71	Nil	Nil	Nil	Nil	Nil
4	Disconnection of 220 KV LILO arrangement of Dhauliganga - Bareilly at Pithoragarh and connecting it to Jauljivi S/Stn. at 220 KV level	3	0.098	Nil	0.26	Nil	Nil	Nil	Nil	Nil
5	Jigmeling – Alipurduar 400 KV D/C (Quad) TL	9643	289.96	57324	682.95	838.43	404.08	4.58	0.33	898.68
6	VSC based 2000 MW HVDC link (320 KV) between Pugulur and North Trichur	244	2.5876	12320	24.91	Nil	NIL	1132.99	Nil	Nil
7	800 KV HVDC Raigarh – Pugalur Bi-pole link	26725	2233.69	213667	2176.9	2480.82	2602.35	1754.09	539.46	17487.48
	Total	45830	2908.44	298832	3093.26	3552.95	3304.92	2891.96	539.96	18521.98

A total sum of **Rs 31905.03 lakhs** has been paid as tree/crop compensation till December'2019. A sample copy of crop compensation notice along with assessment sheet is enclosed at **Annexure-1**.

Figure 1: Tree/Crop Compensation Process



2.2.3 Land Compensation as per MoP Guidelines:

Ministry of Power (MoP), Govt of India vide their guidelines dated 15th October 2015 mandated payment of 85% land cost for the land coming under tower base and payment of maximum 15% of land cost for the land coming under the line corridor. However, these guidelines are subject to adoption by state governments for implementation in respective states. Till date, state governments of Maharashtra, Andhra Pradesh, Tamil Nadu and Assam have adopted these guidelines among the states, where the project is being executed, while states of West Bengal and Telangana are yet to adopt these guidelines¹. Among the other involved states, Kerala has implemented the said guidelines for one particular transmission line Edamon-Kochi 400 kV D/C line, while in case of Uttar Pradesh and Uttarakhand, the guidelines have been adopted only for state sector projects. In order to keep a check on such issues, it is also reflected in the EMP for regular monitoring. The details of land compensation paid as per the provisions of the said guidelines are given in **Table- 4**:

Table -4: Details of Land Compensation as per MoP Guidelines

Sl. No	Name of the Line	Total Compensation paid for area under Tower Base (Rs Lakhs)	Total Compensation paid for area under RoW Corridor (Rs Lakhs)	Rate of Land Compensation (Rs)	Remark, if any
1	Baharampur (PG) – Bheramara 400 KV D/C line	Not Applicable	Not Applicable	Not Applicable	Govt of West Bengal yet to ratify the MoP Guidelines of October 2015 regarding RoW compensation
2	LILO of both ckt of 400kVDhauliganga - Bareilly (PG) line at Jauljivi	Nil	Nil	Nil	In the State of Uttar Pradesh (UP) & Uttarakhand, the guidelines are yet to be adopted for central sector projects.
3	Diversion of Dhauliganga- Bareilly 400kV D/C line (operated at 220KV) at Bareilly end from Bareilly (UP) to Bareilly (PG) line	Nil	Nil	Nil	
4	Disconnection of 220 KV LILO arrangement of Dhauliganga -	6.82	Nil	Ranging from Rs 77- 1195 per sq. m.	

¹ Efforts are being made for the early adoption of the said guidelines in all states.

	Bareilly at Pithoragarh and connecting it to Jauljivi S/Stn. at 220 KV level				
5	Jigmeling – Alipurduar 400 kV D/C (Quad)	1394.27	3783.43	Ranging from Rs. 600 – 900 per sq. m	
6	VSC based 2000 MW HVDC link (320 KV) between Pugulur and North Trichur	Assessment under process	Assessment under process		
7	800 KV HVDC Raigarh-Pugalur Bi-pole link	8613.65	8427.73	Ranging from Rs 360-1300/ per sq m.	
Total		10014.74	12211.16		

SECTION-3: COMPLIANCE STATUS WITH ENVIRONMENT MANAGEMENT PLAN STIPULATED IN ESA REPORT & AS AGRRED WITH KfW

The project is being implemented as per the approved Initial Environment Assessment Reports (IEARs) which are based on provisions of POWERGRID's Environmental and Social Policy & Procedures (ESPP), as agreed with KfW and in accordance with applicable laws. The IEARs include Environmental Management Plan (EMP) that describes detailed site-specific mitigation measures and monitoring plans for impacts anticipated during different stages of the proposed project i.e. pre-construction, construction, and operation & maintenance phase. The monitoring requirements have also been included in EMP which identifies when and where a particular parameter will be monitored, how often and against what aspect. For proper implementation, EMP has been made part of contract document to ensure full proof compliance even by the contractors and costs for such mitigation measures are built in the project cost.

Provisions of safety guidelines and checklists (**Annexure- 2**) which are part of IEARs are monitored on a regular basis, both by the POWERGRID, as well as, the safety officer of the contractor. Duly approved provisions of safety plan are also implemented and are closely monitored by the Engineer-in-charge and by the Safety Officer from RHQ on a random basis. Daily briefing is organized before the start of work, where safety related instructions are issued to workers, in order to, ensure a safe working place as well as to ensure use of Personal Protection Equipment's (PPEs).

Monitoring of implementation of environmental and social mitigation measures is required to ensure that these are undertaken in accordance with the EMP and to enable mitigation to be adapted and refined as required. A summary of the environmental and social mitigation measures and monitoring requirements vis-a- vis compliance status by POWERGRID's is given in **Table 5**.

Table – 5: Compliance Status of Environment Management Plan

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
Pre-construction								
1	Location of line towers and line alignment and design	Exposure to safety related risks	Setback of dwellings to line route desined in accordance with permitted level of power frequency and the regulation of supervision at sites.	Tower location and alignment selection with respect to nearest dwellings	Setback distances to nearest houses – once	POWERGRID	Part of tower sitting survey and detailed alignment survey and Design	Complied/Being Complied during survey. Route alignment criterion is part of survey contract.
2	Equipment specifications and design parameters	Release of chemicals and gases in receptors (air, water, land)	PCBs not used in substation transformers or other project facilities or equipment.	Transformer design	Exclusion of PCBs in transformers stated in tender specification – once	POWERGRID	Part of tender specification s for the equipment	Complied. As per technical specification PCB is not used or is below detection limits (i.e. less than 2 mg/kg) as per IEC 61619 or ASTM D4059
			Processes, equipment and systems not to use chlorofluorocarbons (CFC s), including halon, and their use, if any, in existing processes and systems should be phased out and to be disposed of in a manner consistent with the requirements of the Govt.	Process, equipment and system design	Exclusion of CFCs stated in tender specification – once		Part of tender specifications for the Equipment	Complied
				Phase out schedule to be prepared in case still in use – once	Part of equipment and process design		Complied	
3	Transmission line design	Exposure to electromagnetic interference	Line design to comply with the limits of electromagnetic interference from power lines including those of ICNIRP.	Electromagnetic field strength for proposed line design	Line design compliance with relevant standards – once	POWERGRID	Part of design parameters	Complied. Designated as per guidelines of ICNIRP and ACGIH and checked by CPRI and M/s PTI, USA.

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
4	Substation location and design	Exposure to noise	Design of plant enclosures to comply with National ambient noise standards which are also compatible with the EHS guidelines of the World Bank.	Expected noise emissions based on substation design	Compliance with regulations - once	POWERGRID	Part of detailed siting survey and design	The design of the equipment is in compliance with the applicable regulations.
		Social inequities	Careful selection of site to avoid encroachment of socially, culturally and archaeological sensitive areas (i.e. sacred groves, graveyard, religious worship place monuments etc.)	Selection of substation location (distance to sensitive area).	Consultation with local authorities – once	POWERGRID	Part of detailed siting survey and design	Complied during survey. Route alignment criterion is part of survey contract.
5	Location of line towers & line alignment and design	Impact on water bodies	Avoidance of such water bodies to the extent possible. Avoidance of placement of tower inside water bodies to the extent of possible	Tower location and line alignment selection (distance to water bodies)	Consultation with local authorities – once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	Complied during survey. Route alignment criterion is part of survey contract.
		Social inequities	Careful route selection to avoid existing settlements and sensitive locations	Tower location & line alignment selection (distance to nearest dwellings or social institutions)	Consultation with local authorities and land owners – once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			Minimise impact on agricultural land	Tower location and line alignment selection (distance to agricultural land)	Consultation with local authorities and land owners – once			
			Careful selection of site and route alignment to avoid encroachment of socially, culturally and archaeological sensitive areas (i.g. sacred groves, graveyard, religious worship place, monuments etc.)	Tower location and line alignment selection (distance to sensitive area)	Consultation with local authorities - once			
6	Securing lands for substations.	Loss of land/ income change in social status etc.	In the case of Involuntary Acquisitions, Compensation and R&R measures are extended as per provision of RFCTLARRA, 2013 ²	Compensation and monetary R&R amounts/ facilities extended before possession of land.	As per provisions laid out in the act	POWERGRID	Prior to award/start of substation construction.	Land for proposed substations are either prior existing land under POWERGRID's control or private land purchased through willing buyer – willing seller basis on negotiated rates (for details refer Table-2)

² In the instant case no involuntary acquisition of land (permanent) is involved, hence this clause shall not be applicable.

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
7	Line through protected area/ precious ecological area	Loss of precious ecological values/ damage to precious species	Avoid siting of lines through such areas by careful site and alignment selection (National Parks, Wildlife Sanctuary, Biosphere Reserves/ Biodiversity Hotspots)	Tower location and line alignment selection (distance to nearest designated ecological protected/ sensitive areas)	Consultation with local forest authorities - once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	In spite of best efforts, involvement of 795.95 Ha Forest Area including 234.054 Ha of Wildlife Area couldn't be avoided in various Transmission Lines covered under the loan. However, the required Forest/Wildlife clearances have been/being obtained.
			Minimize the need by using RoW wherever possible	Tower location and line alignment selection	Consultation with local authorities and design engineers - once	POWERGRID	Part of tower siting survey and detailed alignment survey & design	Complied.
8	Line through identified Elephant corridor / Migratory bird	Damage to the Wildlife/ Birds and also to line	Study of earmarked elephant corridors to avoid such corridors, Adequate ground clearance, Fault clearing by Circuit Breaker, Barbed wire wrapping on towers, reduced spans etc., if applicable	Tower location and line alignment selection. Minimum/ maximum ground clearance	Consultation with local forest authorities – once. Monitoring – quarterly basis	POWERGRID	Part of tower sitting and detailed alignment survey & design and Operation	The routes of proposed lines don't form the part of any Elephant Corridor

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation n schedule	Compliance Status
			Avoidance of identified /established migration path (Birds & Bats). Provision of flight diverter/ reflectors, bird guard, elevated perches, insulating jumper loops, obstructive perch deterrents, raptor hoods etc ³ , if applicable	Tower location and line alignment selection	Consultation with local forest authorities - once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	All identified/ established Bird migratory paths have been avoided as a result of careful route selection.
9	Line through forestland	Deforestation and loss of biodiversity edge effect	Avoid locating lines in forest land by careful site and alignment selection. Minimise the need by using existing towers, tall towers and RoW, wherever possible Measures to avoid invasion of alien species Obtain statutory clearances from the Government	Tower location and line alignment selection (distance to nearest protected or reserved forest) Intrusion of invasive species Statutory approvals from Government	Consultation with local authorities – once Consultation with local authorities and design engineers – once Consultation with local forest authorities - once Compliance with regulation- once for each subproject	POWERGRID	Part of tower siting survey and detailed alignment survey and design	Complied/Being complied. Route alignment finalized by taking consideration of minimum impact section also that Wildlife clearances

³ As per International/National best practices and in consultation with concerned forest/wildlife Authority.

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
								have either been obtained or are being processed.
10	Lines through farmland	Loss of agricultural production / change in cropping pattern	Use existing tower or footings wherever possible.	Tower location and line alignment selection.	Consultation with local authorities and design engineers – once	POWERGRID	Part of detailed alignment survey & design	Complied during survey which is a part of survey contract. However, as per law of the land, no land is acquired for line tower but all damages are compensated as per provisions of Electricity Act, 2003 and Indian Telegraph Act, 1885.
			Avoid sitting new towers on farmland wherever feasible	Tower location and line alignment selection	Consultation with local authorities and design engineers – once		Part of detailed sitting and alignment survey/design	
11	Noise related	Nuisance to neighbouring properties	Substations sited and designed to ensure noise will not be a nuisance and shall comply with National Ambient Noise Standards, which are also compatible with the EHS guidelines of the World Bank.	Noise levels	Noise levels to be specified in tender documents – once	POWERGRID	Part of detailed equipment design	The equipment installed at substation are mostly static and are so designed that the noise level always remains within permissible limits i.e. 85 dB as per Indian standards. In case of existing substations, the noise levels reported during normal operating conditions are about 60 to 70 dB at 2 m. distance from the equipment and are 20 to 30 dB at perimeters

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
12	Interference with drainage patterns/ irrigation channels	Flooding hazards/ loss of agricultural production	Appropriate siting of towers to avoid channel interference	Tower location and line alignment selection (distance to nearest flood zone)	Consultation with local authorities & design engineers-once	POWERGRID	Part of detailed alignment survey and design	Appropriate siting of towers ensured during alignment survey and Tower spotting to avoid channel interference.
13	Escape of polluting materials	Environmental pollution	Transformers designed with oil spill containment systems, and purpose-built oil, lubricant and fuel storage system, complete with spill cleanup equipment.	Equipment specifications with respect to potential pollutants	Tender document to mention specifications – once	POWERGRID	Part of detailed equipment design /drawings	Complied. Oil sump of sufficient capacity (200% by volume of oil tank in transformer) is provided for every transformer.
			Substations to include drainage and sewage disposal systems to avoid offsite land and water pollution.	Substation sewage design	Tender document to mention detailed specifications – once	POWERGRID	Part of detailed substation layout and design /drawings	Complied. Provision of soak pit is part of design where sewage line is not present.
14	Equipments submerged under flood	Contamination of receptors	Substations constructed above the High Flood Level (HFL) by raising the foundation pad	Substation design to account for HFL (elevation with respect to HFL elevation)	Base height as per flood design- once	POWERGRID	Part of detailed substation layout and design /drawings	Complied. Substation design ensures location of substations above HFL.
15	Explosions /Fire	Hazards to life	Design of substations to include modern fire fighting equipment	Substation design compliance with fire prevention and control codes	Tender document to mention detailed specifications – once	POWERGRID	Part of detailed substation layout and design /drawings	Complied. Fire fighting equipments are integral part of Substation design
			Provision of fire fighting equipment to be located close to transformers					

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
Construction								
16	Equipment layout and installation	Noise and vibrations	Construction techniques and machinery selection seeking to minimize ground disturbance.	Construction techniques and machinery	Construction techniques and machinery creating minimal ground disturbance- once at the start of each construction phase	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied. Low noise producing machineries/ equipments are being used.
17	Physical construction	Disturbed farming activity	Construction activities on cropping land timed to avoid disturbance of field crops (within one month of harvest wherever possible).	Timing of start of construction	Crop disturbance – Post harvest as soon as possible but before next crop – once per site	POWERGRID (Contractor through contract provisions)	Construction period	Construction on farm land undertaken mostly during post-harvest period. Wherever, crop loss occurs, compensation is paid to farm owners and an amount of Rs. 9951.13 lakhs has been paid till December 2019 (for details refer Table -3).
18	Mechanized construction	Noise, vibration and operator safety, efficient operation	Construction equipment to be well maintained.	Construction equipment – estimated noise emissions	Complaints received by local authorities – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	No complaints received so far
		Noise, vibration, equipment wear and tear	Turning off plant not in use.	Construction equipment – estimated noise emissions and operating schedules	Complaints received by local authorities – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
19	Construction of roads for accessibility	Increase in airborne dust particles	Existing roads and tracks used for construction and maintenance access to the line wherever possible.	Access roads, routes (length and width of new access roads to be constructed)	Use of established roads wherever possible-every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Most sites are easily accessible and existing road are used for construction activity
		Increased land requirement for temporary accessibility	New access ways restricted to a single carriageway width within the RoW.	Access width (meters)	Access restricted to single carriage – way width within RoW – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	
20	Construction activities	Safety of local villagers	Coordination with local communities for construction schedules, Barricading the construction area and spreading awareness among locals	Periodic and regular reporting /supervision of safety arrangement	No. of incidents-once every week	POWERGRID (Contractor through contract provisions)	Construction period	All required safety precautions and protocols have been complied with resulting in no accidents during the reporting period.
		Local traffic obstruction	Coordination with local authority, requisite permission for smooth flow of traffic. Imposing speed limits on Project vehicles in project/habitation areas.	Traffic flow (Interruption of traffic)	Frequency (time span)- on daily basis	POWERGRID (Contractor through contract provisions)	Construction period	Most of the tower locations are in farm/barren land in rural setting. Hence, the cases of traffic obstruction are not encountered.
21	Temporary blockage of utilities	Overflows, reduced discharge	Measure in place to avoid dumping of fill materials in sensitive drainage area	Temporary fill placement (m ³)	Absence of fill in sensitive drainage areas – every 4 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied by ensuring proper management of fill.
22	Site clearance	Vegetation	Marking of vegetation to be removed prior to	Vegetation marking and	Clearance strictly limited to target	POWERGRID (Contractor	Construction period	Proper clearance ensured through prior

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			clearance, and strict control on clearing activities to ensure minimal clearance. No use of herbicides and pesticides	clearance control (area in m ²)	vegetation – every 2 weeks	through contract provisions)		permission of concerned authority/owners.
23	Trimming /cutting of trees within RoW	Fire hazards	Trees allowed growing up to a height within the RoW by maintaining adequate clearance between the top of tree and the conductor as per the regulations.	Species-specific tree retention as approved by statutory authorities (average and max. tree height at maturity, in meters)	Presence of target species in RoW following vegetation clearance – once per site	POWERGRID (Contractor through contract provisions)	Construction period	Regulated felling of trees in ROW is carried out with permission of owners and Revenue Authorities, keeping required electrical clearance as per Design
		Loss of vegetation and deforestation	Trees that can survive pruning to comply should be pruned instead of cleared.	Species-specific tree retention as approved by statutory authorities	Presence of target species in RoW following vegetation clearance - once per site	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied
			Felled trees and other cleared or pruned vegetation to be disposed of as authorized by the statutory bodies.	Disposal of cleared vegetation as approved by the statutory authorities (area cleared in m ²)	Use or intended use of vegetation as approved by the statutory authorities – once per site	POWERGRID (Contractor through contract provisions)	Construction period	All felled trees are handed over to concerned authority/owner for disposal. POWERGRID has no role in storage or disposal of felled tree/wood.
24	Wood/vegetation harvesting	Loss of vegetation and deforestation	Construction workers prohibited from harvesting wood in the project area during their employment, (apart from	Illegal wood /vegetation harvesting (area in m ² , number of incidents	Complaints by local people or other evidence of illegal harvesting – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement frequency	Institutional responsibility	Implementation schedule	Compliance Status
			locally employed staff continuing current legal activities)	reported)				
25	Surplus earthwork/soil	Runoff to cause water pollution, solid waste disposal	Soil excavated from tower footings/substation foundation disposed of by placement along roadsides, or at nearby house blocks if requested by landowners	Soil disposal locations and volume (m ³)	Acceptable soil disposal sites – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Complied/Being complied. 90-95% of the excavated soil is used for refilling/resurfacing and rest is being disposed off along with other debris at selected location.
26	Substation construction	Loss of soil	Loss of soil is not a major issue as excavated soil will be mostly reused for leveling and re-filling. However, in case of requirement of excess soil the same will be met from existing quarry or through deep excavation of existing pond or other nearby barren land with agreement of local communities	Borrow area sitting (area of site in m ² and estimated volume in m ³)	Acceptable soil borrow areas that provide a benefit - every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Complied/Being Complied
		Water pollution	Construction activities involving significant ground disturbance (i.e. substation land forming) not undertaken during the monsoon season	Seasonal start and finish of major earthworks(P ^H , BOD /COD, Suspended solids, others)	Timing of major disturbance activities –prior to start of construction activities	POWERGRID (Contractor through contract provisions))	Construction period	Complied/Being Complied

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
27	Site clearance	Vegetation	Tree clearances for easement establishment to only involve cutting trees off at ground level or pruning as appropriate, with tree stumps and roots left in place and ground cover left undisturbed	Ground disturbance during vegetation clearance (area, m ²) Statutory approvals	Amount of ground disturbance – every 2 weeks Statutory approvals for tree clearances – once for each site	POWERGRID (Contractor through contract provisions)	Construction period	Regulated felling of tree in RoW is carried out with permission of owner & revenue authorities keeping required electrical clearance as per design. All felled trees are handed over to owners for disposal.
28	Tower erection Substation foundation- disposal of surplus earthwork/fill	Waste disposal	Excess fill from substation/tower foundation excavation disposed of next to roads or around houses, in agreement with the local community or landowner.	Location and amount (m ³) of fill disposal	Appropriate fill disposal locations – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied
29	Storage of chemicals and materials	Contamination of receptors (land, water, air)	Fuel and other hazardous materials securely stored above high flood level.	Location of hazardous material storage; spill reports (type of material spilled, amount (kg or m ³) and action taken to control and clean up spill)	Fuel storage in appropriate locations and receptacles – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Stored at designated places only.
30	Construction schedules	Noise nuisance to neighbouring properties	Construction activities only undertaken during the day and local communities informed of the construction schedule.	Timing of construction (noise emissions, [dB(A)])	Daytime construction only – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	Construction activity restricted to day time only

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
31	Provision of facilities for construction workers	Contamination of receptors (land, water, air)	Construction workforce facilities to include proper sanitation, water supply and waste disposal facilities.	Amenities for Workforce facilities	Presence of proper sanitation, water supply and waste disposal facilities- once each new facility	POWERGRID (Contractor through contract provisions)	Construction period	No complaints received.
32	Influx of migratory workers	Conflict with local population to share local resources	Using local workers for appropriate tasks	Avoidance/ reduction of conflict through enhancement/ augmentation of resource requirements	Observation & supervision—on weekly basis	POWERGRID (Contractor through contract provisions)	Construction period	No complaints received.
33	Lines through farmland	Loss of agricultural productivity	Use existing access roads wherever possible	Usage of existing utilities	Complaints received by local people /authorities - every 4 weeks	POWERGRID (Contractor through contract provisions)	Construction period	No complaints received so far.
			Ensure existing irrigation facilities are maintained in working condition	Status of existing facilities				
			Protect /preserve topsoil and reinstate after construction completed	Status of facilities (earthwork in m ³)				
			Repair/reinstate damaged bunds etc after construction completed	Status of facilities (earthwork in m ³)				

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
		Loss of income.	Land owners/ farmers compensated for any temporary loss of productive land as per existing regulation.	Process of Crop/tree compensation in consultation with forest dept.(for timber yielding tree) and Horticulture deptt.(for fruit bearing tree)	Consultation with affected land owner prior to implementation and during execution.	POWERGRID	During construction	Construction on farm land undertaken mostly during post-harvest period. Wherever, crop/tree loss occurs, compensation is paid to farm/land owners and an amount of Rs. 31905.03 lakhs has been paid so far towards Crop & Tree Compensation (for details refer Table -3).
34	Uncontrolled erosion/silt runoff	Soil loss, downstream siltation	<p>Need for access tracks minimized, use of existing roads.</p> <p>Limit site clearing to work areas</p> <p>Regeneration of vegetation to stabilize works areas on completion (where applicable)</p> <p>Avoidance of excavation in wet season</p> <p>Water courses protected from siltation through use of bunds and sediment ponds</p>	Design basis and construction procedures (suspended solids in receiving waters; area re-vegetated in m ² ; amount of bunds constructed [length in meter, area in m ² , or volume in m ³])	Incorporating good design and construction management practices – once for each site	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being Complied

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
35	Nuisance to nearby properties	Losses to neighbouring land uses/values	Contract clauses specifying careful construction practices.	Contract clauses	Incorporating good construction management practices – once for each site	POWERGRID (Contractor through contract provisions)	Construction period	Complied/Being complied
			As much as possible existing access ways will be used	Design basis and layout	Incorporating good design engineering practices– once for each site			
			Productive land will be reinstated following completion of construction	Reinstatement of land status (area affected, m ²)	Consultation with affected parties – twice- immediately after completion of construction and after the first harvest			
		Social inequities	Compensation will be paid for loss of production, if any.	Implementation of Tree/Crop compensation (amount paid)	Consultation with affected parties – once in a quarter	POWERGRID	Prior to construction	
36	Flooding hazards due to construction impediments of natural drainage	Flooding and loss of soils, contamination of receptors (land, water)	Avoid natural drainage pattern/ facilities being disturbed/blocked/ diverted by on-going construction activities	Contract clauses (e.g. suspended solids and BOD/COD in receiving water)	Incorporating good construction management practices-once for each site	POWERGRID (Contractor through contract provisions)	Construction period	Good construction management practices are employed at sites to avoid blockage of natural drainage and resultant flooding.

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
37	Equipment submerged under flood	Contamination of receptors (land, water)	Equipment stored at secure place above the high flood level(HFL)	Store room level to be above HFL (elevation difference in meters)	Store room level as per flood design-once	POWERGRID	Construction period	All equipment foundations are designed above HFL.
38	Inadequate siting of borrow areas (quarry areas)	Loss of land values	Existing borrow sites will be used to source aggregates, therefore, no need to develop new sources of aggregates	Contract clauses	Incorporating good construction management practices – once for each site	POWERGRID (Contractor through contract provisions))	Construction period	No extra aggregates required till date. If needed in future, the same will be sourced through approved/ registered borrow/ quarry area.
39	Health and safety	Injury and sickness of workers and members of the public	Safety equipment's (PPEs) for construction workers	Contract clauses	Contract clauses compliance – once every quarter	POWERGRID (Contractor through contract provisions)	Construction period	Complied with project specific safety plan and general conditions of contract, which covers all applicable regulations.
			Contract provisions specifying minimum requirements for construction workers camps					
			Contractor to prepare and implement a health and safety plan.					
			Contractor to arrange for health and safety training sessions					
40	Inadequate construction stage monitoring	Likely to maximise damages	Training of environmental monitoring personnel	Training schedules	No. of programs attended by each person – once a year	POWERGRID	Routinely throughout construction period	Provides proper training and have very good environmental monitoring process.

CI. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			Implementation of effective environmental monitoring and reporting system using checklist of all contractual environmental requirements	Respective contract checklists and remedial actions taken thereof.	Submission of duly completed checklists of all contracts for each site - once			Appropriate clause incorporated in contract provision for EMP implementation. Site managers review the implementation on daily basis.
			Appropriate contact clauses to ensure satisfactory implementation of contractual environmental mitigation measures.	Compliance report related to environmental aspects for the contract	Submission of duly completed compliance report for each contract – once			
Operation and Maintenance								
41	Location of line towers and line alignment & design	Exposure to safety related risks	Setback of dwellings to overhead line route designed in accordance with permitted level of power frequency and the regulation of supervision at sites.	Compliance with setback distances (“as-built” diagrams)	Setback distances to nearest houses – once in quarter	POWERGRID	During operations	Not Applicable
42	Line through identified bird flyways, migratory path	Injury/mortality to birds, bats etc due to collision and electrocution	Avoidance of established/ identified migration path (Birds & Bats). Provision of flight diverter/reflectors, elevated perches, insulating jumper loops, obstructive perch deterrents, raptor hoods etc., if applicable	Regular monitoring for any incident of injury/mortality	No. of incidents- once every month	POWERGRID	Part of detailed siting and alignment survey /design and Operation	Not Applicable

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
43	Equipment submerged under flood	Contamination of receptors (land, water)	Equipment installed above the high flood level (HFL) by raising the foundation pad.	Substation design to account for HFL ("as-built" diagrams)	Base height as per flood design – once	POWERGRID	During operations	Not Applicable
44	Oil spillage	Contamination of land/nearby water bodies	Substation transformers located within secure and impervious sump areas with a storage capacity of at least 100% of the capacity of oil in transformers and associated reserve tanks, which acts as a Secondary Containment, in case of a leakage.	Substation bunding (Oil sump) ("as-built" diagrams)	Bunding (Oil sump) capacity and permeability - once	POWERGRID	During operations	Not Applicable
45	SF ₆ management	Emission of most potent GHG causing climate change	Reduction of SF ₆ emission through awareness, replacement of old seals, proper handling & storage by controlled inventory and use, enhance recovery and applying new technologies to reduce leakage	Leakage and gas density/level	Continuous monitoring	POWERGRID	During Operations	Not Applicable
46	Inadequate provision of staff/workers health and safety during operations	Injury and sickness of staff /workers	Careful design using appropriate technologies to minimise hazards	Usage of appropriate technologies (lost work days due to illness and injuries)	Preparedness level for using these technologies in crisis – once each year	POWERGRID	Design and operation	Not Applicable
			Safety awareness raising for staff.	Training/awareness programs	Number of programs and			

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			Preparation of fire emergency action plan and training given to staff on implementing emergency action plan	and mock drills	percent of staff /workers covered – once each year			
			Provide adequate sanitation and water supply facilities	Provision of facilities	Complaints received from staff /workers every 2 weeks			
47	Electric Shock Hazards	Injury/ mortality to staff and public	Careful design using appropriate technologies to minimise hazards	Usage of appropriate technologies (no. of injury incidents, lost work days)	Preparedness level for using these technology in crisis- once a month	POWERGRID	Design and Operation	Not Applicable
			Security fences around substations	Maintenance of fences	Report on maintenance – every 2 weeks			
			Barriers to prevent climbing on/ dismantling of towers	Maintenance of barriers				
			Appropriate warning signs on facilities	Maintenance of warning signs				
			Electricity safety awareness raising in project areas	Training /awareness programs and mock drills for all concerned parties	Number of programs and percent of total persons covered – once each year			

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
48	Operations and maintenance staff skills less than acceptable	Unnecessary environmental losses of various types	Adequate training in O&M to all relevant staff of substations & line maintenance crews. Preparation and training in the use of O&M manuals and standard operating practices	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	POWERGRID	Operation	Not Applicable
49	Inadequate periodic environmental monitoring.	Diminished ecological and social values.	Staff to receive training in environmental monitoring of project operations and maintenance activities.	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	POWERGRID	Operation	Not Applicable
50	Equipment specifications and design parameters	Release of chemicals and gases in receptors (air, water, land)	Processes, equipment and systems using chlorofluorocarbons (CFCs), including halon, should be phased out and to be disposed of in a manner consistent with the requirements of the Govt.	Process, equipment and system design	Phase out schedule to be prepared in case still in use – once in a quarter	POWERGRID	Operation	Not Applicable
51	Transmission line maintenance	Exposure to electromagnetic interference	Transmission line design to comply with the limits of electromagnetic interference from overhead power lines	Required ground clearance (meters)	Ground clearance - once	POWERGRID	Operation	Not Applicable
52	Uncontrolled growth of vegetation	Fire hazard due to growth of	Periodic pruning of vegetation to maintain requisite electrical clearance.	Requisite clearance (meters)	Assessment in consultation with forest authorities - once a year(pre-	POWERGRID	Operation	Not Applicable

Cl. No.	Project activity/stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement frequency &	Institutional responsibility	Implementation schedule	Compliance Status
		tree/shrub /bamboo along RoW	No use of herbicides/ pesticides		monsoon/ post-monsoon			
53	Noise related	Nuisance to neighbouring properties	Substations sited and designed to ensure noise will not be a nuisance.	Noise levels {dB(A)}	Noise levels at boundary nearest to properties and consultation with affected parties if any - once	POWERGRID	Operation	Not Applicable

SECTION-4: APPROACH AND METHODOLOGY APPLIED FOR ENVIRONMENT & SOCIAL MONITORING OF THE PROJECT

Monitoring is a continuous process throughout the Project life cycle starting from site selection to construction and maintenance stage. A Project Management Unit (PMU) has been set up headed by Executive Director (Corporate Planning) at headquarters to coordinate and implement all environment and social issues with the assistance of functional department like Environment & Social Management Department (ESMD), Engineering etc. Apart from this, site managers review the progress on daily basis and regular project review meetings held at least on monthly basis, chaired by the Executive Director of the region wherein the environmental aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings will be submitted to the Directors and Chairman & Managing Director (CMD).

POWERGRID has a separate monitoring department which carries out real time monitoring of all parameters of project implementation including the environment and social issues. Such issues are discussed in detail during every quarter in the Project Review Meeting (PRM) Chaired by Director (Projects). CMD also takes periodic review of project implementation

A summarized environmental and social monitoring plan with implementation schedule at different stage of subprojects implementation is presented in the table below

Monitoring Tasks	Implementation Responsibility	Implementation Schedule
Pre-Construction Phase		
Monitor contractor's detailed alignment survey to ensure relevant environmental and social mitigation measures in EMP have been included.	POWERGRID with the assistance of project implementation unit	Prior to POWERGRID approval of contractor's detailed alignment survey.
Construction Phase		
Regular monitoring and reporting of contractor's compliance with contractual environmental and social mitigation measures.	POWERGRID with the assistance of project implementation unit	Continuous as per ESA and EMP throughout construction period.
Operation and Maintenance Phase		
Observations during routine maintenance inspections of substations and transmission lines RoWs. Inspections will include monitoring implementation status of mitigation measures specified in EMP.	POWERGRID	As per POWERGRID inspection schedules and EMP provisions.

SECTION- 5: MONITORING OF ENVIRONMENTAL RECEPTORS/ ATTRIBUTES

It is evident that environmental impacts associated with power transmission projects are not far reaching as these developmental activities are non-polluting in nature and do not involve any disposal of solid waste, effluents and hazardous substances on land, air and water. Although, there are some localized impacts on natural resources like forest whenever transmission line passes through forest area, however, it can be avoided or

minimized through careful route and site selection.

By adopting careful route selection through modern technique like GPS, GIS, remote sensing etc., the total forest involvement for proposed projects was restricted to 135.65 km which is only 5.90 % of total line length of 2298.10 km of all transmission lines under the project. This includes a 49.52 km line length through protected areas, which couldn't be avoided in spite of best efforts due to geographical constraint and lack of viable alternatives. However, by ensuring compliance with the conditions as specified in the Wildlife/forest clearances/permissions, the possible adverse impacts will be mitigated to large extent.

The proposed project doesn't have much anticipated impact on environmental attributes like air, water, soil etc. and are mostly concentrated to construction stage. Air quality impact is restricted to the construction phase only as no emissions to air takes place during ordinary operations of transmission lines. Impacts on air quality due to airborne dust in the vicinity of the work sites (at points along the route of the transmission line where towers are located) mainly result from excavation and construction activities and tail gases from construction equipments and vehicles. Since all the proposed alignments are accessible, no construction of access roads is envisaged thereby avoiding any airborne dust pollution in the vicinity. The construction activities are small scale and of a temporary nature. Moreover, the activities are not localized to any residential area and are widely dispersed that provide adequate buffering to air environment. Therefore, impacts on air quality from construction activities are considered insignificant. No liquid effluent is generated due to project activity. However, small quantities of domestic sewage from staff quarters and construction camp is generated which is discharged in local soak pits. Construction of transmission tower foundation, stringing and other activities are mostly manual in nature and use of heavy equipment or blasting is not envisaged. The main noise sources during the construction phase are from equipments and transportation vehicles. However, no significant noise level variation from construction related activities is anticipated.

SECTION: 6 ANY OTHER ENVIRONMENTAL ASPECTS, IMPACTS (ACCIDENTS) OBSERVED DURING IMPLEMENTATION

Except the predicted impacts as mentioned in EMP, no other unanticipated impacts were observed during the implementation of projects. As regard Safety, all required measures are in place including due precautions/awareness programs as well as ensuring use of PPEs, which is evident from the fact that **no accidents (fatal or non-fatal) including major/minor injuries** were reported during the reporting period from any of the sites.

SECTION: 7 DETAILS OF GRIEVANCE REDRESSAL COMMITTEE, COMPLAINT RECEIVED AND ACTION TAKEN

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 concerns⁴ of peoples are addressed during public consultation process initiated at the beginning of the project. For handling grievance, Grievance Redress Committee (GRC) has been established both at the project/scheme level and at Corporate/HQ level. The corporate level GRC functions under the chairmanship of Director (Projects) and includes one representative from corporate ESMD who is conversant with the environment & social issues. Many minor issues related to assessment of compensation amount were brought to the notice of Project officials, which were resolved instantly and amicably through discussion & deliberation in the presence of Revenue/district officials. Details of Verbal/Written complaints and Court Cases are presented below in **Table-6** and **Table 6a** respectively:

⁴ *The difference between minor concern and major concern is largely with respect to intensity of possible impacts. Concerns related to expected benefits of project, compensation procedure etc. are considered as minor, while those related to safety, human rights violation and violation of law are considered as major.*

Table 6: Details of Verbal/Written Complaints

S N	Name of the line and section/part	Location	No. of complaint/ Grievance received	Type of complaints (Verbal/Written) & Name of complainants	Main Issue of complaints (such as compensation etc.)	Status of complaint
1	800KV HVDC Raigarh-Pugalur TL	41/2	1	Gandla Sadanandam	Demand for high compensation	Matter resolved through discussion in consultation with Revenue officials.
2	800KV HVDC Raigarh-Pugalur TL	31/4	1	Srinivas Reddy	Demand for high compensation	Matter resolved through discussion in consultation with Revenue officials.
3	800KV HVDC Raigarh-Pugalur TL	34/0 to 34/2	3	J Sammiah Mr J Jampaiah & Mr J Rajaiah	Demand for high compensation	Matter referred to concerned Revenue officials through District Collector for early resolution.
4	800KV HVDC Raigarh-Pugalur TL	9/3	1	D Sattiah	Pre payment of compensation	Matter resolved amicably in consultation with by District Collector and political representatives.
5	800KV HVDC Raigarh-Pugalur TL	64B/1	1	Veera Reddy	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
6	800KV HVDC Raigarh-Pugalur TL	75/0	1	Manda Kanka Lakshmi	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
7	800KV HVDC Raigarh-Pugalur TL	93/9	1	Written V Ranadheer Reddy S/o Indrasena Reddy	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
8	800KV HVDC Raigarh-Pugalur TL	100A/6	1	Verbal/ Written Jatta Anjaiah, S/o Ramnarsaiah	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
9	800KV HVDC Raigarh-Pugalur TL	101/0	1	Verbal/ Written Odapalli Dilto Purnachandran, s/o Pandurangam	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.

10	800KV HVDC Raigarh-Pugalur TL	101A/5	1	Written P Venkatnarsimha Reddy, S/o Hanma Reddy	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
11	800KV HVDC Raigarh-Pugalur TL	101A/8	1	Written Alimineti Indra Reddy, S/o Krishna Reddy	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
12	800KV HVDC Raigarh-Pugalur TL	103/3	1	Verbal/Written Gosukonda Sridhar Reddy, S/o Raghava Reddy	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
13	800KV HVDC Raigarh-Pugalur TL	116/1	1	Verbal/Written Pabbu Raghupathi goud, S/o Mallaiah	Route Diversion	Matter resolved through discussion. Compensation framework explained to complainant.
14	800KV HVDC Raigarh-Pugalur TL	117/0	1	Verbal /Written Dolphin Foods India pvt. Ltd.	Route Diversion	Matter resolved through discussion.
15	800KV HVDC Raigarh-Pugalur TL	118A/0	1	Verbal Siddipeta Laxmi, w/o Ranga Reddy	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
16	800KV HVDC Raigarh-Pugalur TL	119/0	1	Verbal /Written Kolanu Anji Reddy, s/o Narsi Reddy	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to Complainant.
17	800KV HVDC Raigarh-Pugalur TL	120A/0	1	Written Girkiti Laxminarayana, s/o Balraju	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
18	800KV HVDC Raigarh-Pugalur TL	121/0	1	Written Ramaswamy Latchi Reddy, s/o Devi Reddy	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.

19	800KV HVDC Raigarh-Pugalur TL	122/0	1	Verbal Siga Ponnamma, w/o Yellaiah	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
20	800KV HVDC Raigarh-Pugalur TL	122A/0 & 122B/0	1	Verbal Sukka Ramulu s/o Narsimha	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
21	800KV HVDC Raigarh-Pugalur TL	122C/0 & 122D/0	1	Verbal Meesala Jangaiah s/o Narsaiah	Route Diversion/ Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
22	800KV HVDC Raigarh-Pugalur TL	160/3	1	Written Mrs. P.Saritha W/o Raja Goud	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
23	800KV HVDC Raigarh-Pugalur TL	152A/6	1	Verbal Mr. Shankar	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
24	800KV HVDC Raigarh-Pugalur TL	147-150	1	Verbal /Written Butterfly City	Demand to line diversion	Matter resolved through discussion.
25	800KV HVDC Raigarh-Pugalur TL	143A/1	1	Written/Verbal Mr.J. Panthay Naik	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
26	800KV HVDC Raigarh-Pugalur TL	140/0	1	Verbal Mr. Gopi Reddy Chandrasekhar Reddy	Demand to line diversion	Matter resolved through discussion.
27	800KV HVDC Raigarh-Pugalur TL	135/4	1	Verbal Mr. Mallesh	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
28	800KV HVDC Raigarh-Pugalur TL	132-133	1	Verbal JB infra	Objection to line construction	Matter resolved through discussion.
29	800KV HVDC Raigarh-Pugalur TL	129/0	1	Verbal Mr. Mohan Reddy	Compensation	Matter resolved through discussion.
30	800KV HVDC Raigarh-Pugalur TL	127/4 & 127/5	01	Verbal Mr. Koteswara Rao	Compensation	Matter resolved through discussion.

31	800KV HVDC Raigarh-Pugalur TL	126A/0	1	Verbal, Mr.Raguveera Reddy	Damage to Gate, Water pipe, Fencing and Granite stone	Instructions issued to the Contractor (M/s KPTL agency) to do the repair work as soon as possible. Issue resolved.
32	800KV HVDC Raigarh-Pugalur TL	126B/0	1	Written	Land Dispute	Pending with MRO office, Ibrahimpatnam.
33	800KV HVDC Raigarh-Pugalur TL	169/0	1	Legal Notice	Land Dispute	Matter resolved through discussions.
34	800KV HVDC Raigarh-Pugalur TL	171/5	1	Request letter	Diversion of line	Matter resolved through discussions.
35	800KV HVDC Raigarh-Pugalur TL	206/0	2	Written K. Anasuyamma	Land dispute	Matter referred to MRO office, Orvakal. Work completed.
36	800KV HVDC Raigarh-Pugalur TL	207A/2	1	Written G.P.Venkateswarul	Higher compensation for land	Issue resolved through discussion and work completed.
37	800KV HVDC Raigarh-Pugalur TL	207A/6	1	Written Chinna Musalanna	Higher compensation for land	Issue resolved through discussion and work completed.
38	800KV HVDC Raigarh-Pugalur TL	208/0	1	Written Patannasimakhathu	Higher compensation for land	Issue resolved through discussion and work completed
39	800KV HVDC Raigarh-Pugalur TL	208/1	1	Written Seelam Rama Krishnamma	Higher compensation for land	Issue resolved through discussion and work completed.
40	800KV HVDC Raigarh-Pugalur TL	211/1	1	Written Mallela Jyothi	Higher compensation for land and crop	Issue resolved through discussion and work completed.
41	800KV HVDC Raigarh-Pugalur TL	322/2	1	Written M.Madhu Sudhan Reddy	Route Diversion	Issue resolved through discussion and work completed.
42	800KV HVDC Raigarh-Pugalur TL	292/0	1	Written T Anjanamma	Dispute area	Issue resolved by intervention of MRO Office.
43	800KV HVDC Raigarh-Pugalur TL	283/0	1	Written Gangadhar	Crop Compensation	Matter resolved amicably through discussions.
44	800KV HVDC Raigarh-Pugalur TL	313/2	1	Written P Ammani	Compensation for Bore well	Digging of Bore well completed and The issue was resolved.

45	800KV HVDC Raigarh-Pugalur TL	328/1	1	Written Siva Reddy	Land Compensation	Issue resolved through discussion and work completed.
46	800KV HVDC Raigarh-Pugalur TL	304/7	1	Written Erica Reddy Sanka Reddy	Land Compensation	Matter referred to MRO Office for early resolution.
47	800KV HVDC Raigarh-Pugalur TL	335A/2	1	Written Iqbal Ahmed, Siraz Ahmed, Ahmed Bazeer	Compensation	Issue resolved through discussion and work completed.
48	800KV HVDC Raigarh-Pugalur TL	345A/2	1	Written O.Ramana	Land compensation dispute between 2 owners	Matter referred to MRO Office for early resolution.
49	800KV HVDC Raigarh-Pugalur TL	351/1	1	Written P. Bhaskar Reddy	Land compensation	Issue resolved through discussion and work completed.
50	800KV HVDC Raigarh-Pugalur TL	352/1	1	Written Y.Mal Reddy	Land compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
51	800KV HVDC Raigarh-Pugalur TL	375/0 – 375/1	1	Written A. Sumathi	Tree compensation	Issue resolved through discussion and work completed.
52	800KV HVDC Raigarh-Pugalur TL	376/0	1	Written G.Dileep Kumar	Land compensation dispute between 2 owners	Issue resolved through discussion and work completed.
53	800KV HVDC Raigarh-Pugalur TL	376/0 – 376/1	1	Written S. Krishnamoorthy	Tree compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
54	800KV HVDC Raigarh-Pugalur TL	382/5,6, 7	1	Written Mohan Reddy	Land compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
55	800KV HVDC Raigarh-Pugalur TL	389/0	1	Written A Kumari	Land compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
56	800KV HVDC Raigarh-Pugalur TL	392/0	1	Written Muthu Krishna Reddy	Crop compensation	Matter resolved through discussions.

57	800KV HVDC Raigarh-Pugalur TL	394/0	1	Written Varalashmi	Land compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
58	800KV HVDC Raigarh-Pugalur TL	400/1- 400/2	1	Written A Arumugam	Tree compensation dispute between 2 owners	Matter referred to MRO Office but work is completed.
59	800KV HVDC Raigarh-Pugalur TL	Modakur chi Village	1	Written A. Dakshinamurthy, Modakurchi Village	Request for compensation for drip irrigation pipe line	The complainant is informed that due compensation as assessed by the concerned department shall be paid.
60	800KV HVDC Raigarh-Pugalur TL	Modakur chi, Taluk, Erode	1	Written Ms. Pravina, Modakurchi Taluk, Erode	Request for laying underground cable in place of overhead line	The complainant is informed that underground cabling is not feasible and unviable due to techno economic reasons.
61	800KV HVDC Raigarh-Pugalur TL	Nallamp alli , Taluk- Dharmap Uri	1	Written Mr.Marimuthu Gounder, Nallampalli Taluk, Dharmapuri	Request to provide house compensation	The complainant is informed about the availability of sufficient clearance for the existing house as per CEA norms.
62	800KV HVDC Raigarh-Pugalur TL	MD 68/0	1	Muniyammal	Structures under the line	Closed
63	800KV HVDC Raigarh-Pugalur TL	MD 80/0	1	Muniyan	Structures under the line	Closed
64	800KV HVDC Raigarh-Pugalur TL	MD 74/0	1	Planisamy	Structures under the line	Closed
65	800KV HVDC Raigarh-Pugalur TL	MD 48/0- 48/1	1	Murugesan	Structures under the line	Closed
66	800KV HVDC Raigarh-Pugalur TL	MD 88/0	1	Arumugam	Structures under the line	Closed
67	800KV HVDC Raigarh-Pugalur TL	MD 27/0- 27/1	1	Govindaraj	Structures under the line	Closed
68	800KV HVDC Raigarh-Pugalur TL	MD 83/0	1	Deivani	Structures under the line	Closed

69	800KV HVDC Raigarh-Pugalur TL	MD 27/3-28/0	1	Madesh	Structures under the line	Closed
70	800KV HVDC Raigarh-Pugalur TL	MD 38/0	1	Sarasu	Structures under the line	Closed
71	800KV HVDC Raigarh-Pugalur TL	MD 82/0	1	Maatukaran	Structures under the line	Closed
72	800KV HVDC Raigarh-Pugalur TL	131/0	1	Written Sh Khemraj Raghunath Pawade	Compensation	Efforts are being made for the early resolution in consultation with Revenue Authorities. Work Completed.
73	800KV HVDC Raigarh-Pugalur TL	131/3	1	Written Mr. Shashikant Krishna Dhumne	Compensation	Efforts are being made for the early resolution in consultation with Revenue Authorities. Work Completed.
74	800KV HVDC Raigarh-Pugalur TL	43/1,44/0, 44/1,44/2, 45/0, 45/1	3	Written Various villagers of village Yedapur, Sonpur and Andhadhi of Kurkheda Tehsil	Claim for loss of livelihood due to tree cutting in forest area.	Valuation towards loss of livelihood due to tree cutting is completed as per the directions of the Collector, Gadchiroli. Matter is being followed up for early resolution.
75	800KV HVDC Raigarh-Pugalur TL	3/0-3/1	3	Written Uttam Singh S/o Gasikram, Padman Patel S/o Lalkumar Lochana Patel w/o Lalkumar	Construction of House in Corridor beneath Conductor for Higher Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
76	800KV HVDC Raigarh-Pugalur TL	2A/2	3	Verbal Dekumar S/o Dhaniram	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
77	800KV HVDC Raigarh-Pugalur TL	3/0	2	Verbal Geeta Kumar S/o ShaukiLal Rajesh, Kamlesh S/o Sanatkumar Patel,	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed

78	800KV HVDC Raigarh-Pugalur TL	3/1	3	Verbal Hiradhar,Kamal, Nirmala S/o Balmukund Ashok Kumar, KrishnaKumar S/o Ajambar	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
79	800KV HVDC Raigarh-Pugalur TL	3/2	2	Verbal Jayram S/o Girdhari Dolnarayan, Satyanarayan S/o Haricharan	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
80	800KV HVDC Raigarh-Pugalur TL	5/0	2	Verbal Brijmohan S/o Mahadev	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
81	800KV HVDC Raigarh-Pugalur TL	6/0	2	Verbal Lakhanlal S/o Pyarelal,Purushottam S/o Bhojram, Rohit Kumar S/o Bhojram	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
82	800KV HVDC Raigarh-Pugalur TL	6/1	1	Verbal J. Chaudhari S/o Alekhram	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
83	800KV HVDC Raigarh-Pugalur TL	7/0	2	Verbal Sadhuram S/o Balram	For Higher Amount of Compensation	With intervention of Revenue Dept. matter resolved. Work Completed.
84	800KV HVDC Raigarh-Pugalur TL	7A/0	2	Verbal Sahebram S/o Jagatram	For Higher Amount of Compensation	
85	800KV HVDC Raigarh-Pugalur TL	5/1	2	Verbal Muralidhar Govinda Gurnule	For Higher Amount of Compensation of Crop and Land	With intervention of Revenue Dept. matter resolved. Work Completed.
86	800KV HVDC Raigarh-Pugalur TL	4/1	1	Verbal Asaram Rangaji Darwade	For Higher Amount of Compensation of Crop and Tree	With intervention of Revenue Dept. matter resolved. Work Completed.

87	Disconnection of LILO arrangement of Dhauliganga – Bareilly at Pithoragarh and	AP-01/0	1	Verbal Jagdish Ram	Compensation	Matter resolved through discussion. Compensation framework explained to complainant.
88	connecting it to Jauljivi 400/220 KV S/s at 220 KV level	AP-20/0	1	Verbal Mahesh Chandra Tiwari	Delay in Compensation	Procedure of compensation explained to the complainant and compensation paid. Matter resolved.
89	LILO of both Ckt of 400kV Dhauliganga-bareilly (PG) at Baram Jauljivi S/s.	AP-02/0 Loop Out	1	Written Yogendra Pal	Asking for four times of circle rate for Land Compensation	Matter resolved through discussion.
90	400 KV D/C (Quad) Jigmelling-Alipurduar	80/0 – 83/0	1	Written Sangsar Narzary	Demand for change in Line route	As per the request of villagers and as instructed by concerned Revenue Official, the line has been shifted with a few meters increase in line length. Matter resolved.
91	400 KV D/C (Quad) Jigmelling-Alipurduar	128 nos. of locations in forest area	1	Verbal	Compensation towards crops, trees and land	Payment towards damages (crops, tree and land) is being made as per the instructions and rate list issued by the Local Administrative authority (BTC).
92	400 KV D/C (Quad) Jigmelling-Alipurduar	73/0	1	Written Mrs. Chandana Narzary	Shifting of Tower location	Matter resolved amicably through discussion.
93	400 KV D/C (Quad) Jigmelling-Alipurduar	87/0	1	Verbal Paramanada Brahma	Demand for high compensation	Matter resolved with discussion
94	400 KV D/C (Quad) Jigmelling-Alipurduar	89/2	1	Verbal Bini Narzary and Narad Mushahary	Land dispute	Matter referred to Revenue Authority for verification of land records. Matter resolved.
95	400 KV D/C (Quad) Jigmelling-Alipurduar	91/0	1	Verbal Preetam Brahma Choudhury	Demand for high compensation	Matter referred to Revenue Authority for early resolution.

96	400 KV D/C (Quad) Jigmelling-Alipurduar	16/2	2	Written Mr Babul Ball Mr. Pintu Ball	Compensation	Compensation framework explained and paid as per standard practice of POWERGRID. Issue resolved.
97	400 KV D/C (Quad) Jigmelling-Alipurduar	16/0	1	Written Mrs Shiksha Rani Ball	Compensation	Compensation framework explained and paid as per standard practice of POWERGRID. Issue resolved.
98	400 KV D/C (Quad) Jigmelling-Alipurduar	74/0- 74/1	1	Written Jiban Krishna Saha	Compensation	Compensation framework explained and paid as per standard practice of POWERGRID. Issue resolved.
99	400 KV D/C (Quad) Jigmelling-Alipurduar	NA	1	Written Utpal Kumar Roy	Compensation	After visiting the site it was observed that no tower of POWERGRID is passing through the complaint's land. I
100	400 KV D/C (Quad) Jigmelling-Alipurduar	53/0-53/1	2	Written Mr. Someswar Mr. Khgen Dakua	Compensation	In spite of best efforts, matter couldn't be resolved due to unreasonable demand of excessive and unlawful compensation. The matter has been discussed with SDO, Tufanganj and is under process to resolve the issue.
101	400kV D/C Behrampore – Bheramera Phase II	1/0-1/1- 1/2	3	Written Dharmaraj Ghosh Natraj Ghosh Satya Prakash Ghosh	Compensation	Severe RoW, demanding high compensation. The issue has been sorted out by I/C BHP and as per the standard practice of POWERGRID. Stringing work has been completed.
102	400kV D/C Behrampore – Bheramera Phase II	13/0	1	Verbal Kabir hossain	Compensation	Demanding high compensation. Now the matter has been closed by Sagardighi BDO. All work completed.
103	400kV D/C Behrampore – Bheramera Phase II	64/2, 65/0, 65A/0 & corridor	6	Written Nur Hussain Anarul Islam Mondal Sariful Mondal Musaraf H Mondal Azad Khan Ruban Ali Biswas	Compensation	Asking to change the route for constructing Banglar Bare Project. Matter has been sorted out by SDO Domkal. All work completed.

104	400kV D/C Behrampore – Bheramera Phase II	73/1	1	Verbal Seraj Mondal	Compensation	Demanding high compensation for land. Negotiated as per standard practice of POWERGRID. Matter has been closed.
105	400kV D/C Behrampore – Bheramera Phase II	74/0	1	Verbal Rashid Mondal	Compensation	Demanding high compensation. Matter has been sorted out in coordination with SDO Domkal. Matter has been closed.

Table 6a: Details of Court Cases

S N	Name of the Line and section/Part	Location	Name of Complainant/s	Main Issue of Case (such as compensation etc)	Name of the Court	Status of complaint
1	800KV HVDC Raigarh- Pugalur TL	12/0	Mrs. Renuka	Compensation	High Court Hyderabad	In response to the petition filed by the owner, POWERGRID filed the Caveat. However, out of court settlement reached with the complainant and work executed.
2	800KV HVDC Raigarh- Pugalur TL	12/2	Mrs Roshi Reddy	Demanding high value compensation	High Court Hyderabad	In response to the petition filed by the owner, POWERGRID filed the Caveat. However, out of court settlement reached with the complainant and work executed.
3	800KV HVDC Raigarh- Pugalur TL	118/0	NCL Industries	Route Diversion	Session Court, Yadadri Bhongir	Petitioner's plea rejected by the Session Court and Foundation work completed. However, the complainant still has objection for tower erection. Efforts are on to resolve the issue through discussions.
4	800KV HVDC Raigarh- Pugalur TL	123A/0-124A/0	Y. Kiran Kumar	Route Diversion	High Court, Hyderabad	Land owner filed the case in High Court. No in term relief given to land owner in the verdict. Work completed.
5	800KV HVDC Raigarh- Pugalur TL	158/0	Harsha Verdan Reddy	Route Diversion	High Court, Hyderabad	Land owner filed the case in High Court. No in term relief given to land owner in the verdict. Work completed.
6	800KV HVDC Raigarh- Pugalur TL	130/0 to 132/0	Mr. Murali	Route Diversion	High Court, Hyderabad	Land owner filled case in High Court. However, Matter has been solved through discussion. Work completed.
7	800KV HVDC Raigarh- Pugalur TL	322/2	M. Madhu Sudhan Reddy	Route Diversion	Hon'ble High Court Hyderabad and Guntur	Cleared with DC/Kadapa Order. work completed.

8	800KV HVDC Raigarh-Pugalur TL	383/4 Corridor	R Ratnamma, Reddy Sunil, K.Subramanyam Setty	Corridor Objection	Hon'ble High Court Hyderabad and Amaravathi	Case is pending. However, efforts are on to resolve the issue through discussions. Work completed.
9	800KV HVDC Raigarh-Pugalur TL	387/1	Sarath Babu	Land compensation	Chittoor Court	Case is pending. However, efforts are on to resolve the issue through discussions. Work completed.
10	800KV HVDC Raigarh-Pugalur TL	9/0, 9/1	1	WP No. 28892/2018 High Court of Judicature at Madras	Seeking enhanced compensation	Disposed and referred back to the DC, Dharmapuri. As per direction of court, enquiry conducted by DC/Dharmapuri. Orders awaited
11	800KV HVDC Raigarh-Pugalur TL	222/2 - 222/3 (Corridor)	1	CRP No: 3388/2018. High Court Judicature at Madras	Rerouting of the line.	Plaintiff for rejection Pending with Hon'ble High Court at Madras
12	800KV HVDC Raigarh-Pugalur TL	8/2 - 9/0 (corridor)	10	28532 to 28542 / 2018 to 28554 to 28559/2018. High Court of Judicature at Madras	Rerouting of the line.	Disposed and referred to the DC, Dharmapuri. Enquiry completed; DC Orders awaited.
13	800KV HVDC Raigarh-Pugalur TL	8/2-9/0	1	28554/2018. High Court of Judicature at Madras	Rerouting of the line.	Disposed of and referred to the DC, Dharmapuri, enquiry completed. DC Orders awaited.
14	800KV HVDC Raigarh-Pugalur TL	8/2-9/0	1	CRL O P No: 29812/2018. High Court of Judicature at Madras	Seek removal of police protection to transmission line construction work in progress.	Counter filed by Inspector of police, Kumarapalaym. Pending with Hon'ble High Court at Madras

15	800KV HVDC Raigarh-Pugalur TL	116/2	Bhaskar Keshav Urkude	Demand for high compensation	District Court, Chandrapur	The matter is currently under the consideration of the court. However, efforts are on to settle the matter through discussion.
16	800KV HVDC Raigarh-Pugalur TL	116/2	Ramesh Warghantiwar, Nihal Warghantiwar	Demand for high compensation	District Court, Chandrapur	The matter is currently under the consideration of the court. However, efforts are on to settle the matter through discussion.
17	800KV HVDC Raigarh-Pugalur TL	121/0-123/0	V. Maganathan, T S Govindhan Janaki, Ravi Murugan, Krishnan Mahalingam Krishnan Veerasamy Kalaselvi		Structures under the line	Closed
18	800KV HVDC Raigarh-Pugalur TL	43/0, 44/0, 55/0 & 56/0	R Raja, P Munusamy, M Ammasi, K Kannammal		RoW	Closed
19	400 KV D/C Jigmeling – Alipurduar TL	5/0	Harimohan Oraon	Higher Compensation	High Court Kolkata	Case disposed off by Hon'ble court. Compensation has been paid as per the direction of court.
20	400 KV D/C Jigmeling – Alipurduar TL	84/0-85/0	Manoranjan Brahma	Route Diversion, Land owner going to set up a stone crusher plant in the corridor area.	Civil Judge, Kokrajhar district, Assam	Hearing and submission of counter documentation going on.

22	400kV D/C Behrampore – Bheramera Phase II	73/1-74/0 (Corridor)	Sajahan Biswas Sourav Biswas Mirajul Islam Saiuddin Bisaws Giyasuddin Biswas Numuddin Biswas	Demanding very high compensation	High Court Kolkata	The court hearing is yet to come.
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SECTION: 8 CONCLUSIONS

It may be noted from above that the project activities are non-polluting in nature and don't have significant adverse impacts on environment except the involvement of 795.952 ha. (5.90 %) of forest area, including 234.054 Ha of protected areas. However, with the condition of raising the compensatory afforestation on double the area and measures like extended tower to reduce tree felling will go a long way in mitigating the likely loss of vegetation. Similarly, with the implementation of measures suggested in in the Wildlife/forest clearances/permissions for the Wildlife Area involved, the possible adverse impacts will be negligible. Though, some environmental impacts are anticipated mostly during construction period, these are being mitigated successfully by implementing the EMP. POWERGRID approach of project implementation involving selection of optimum route before design stage, regular consultation with local population, proper implementation of EMP and monitoring mechanism throughout project life cycle supported by strong institutional arrangement has considerably nullified the adverse impacts arising out of project activities. Moreover, by implementing high Capacity Corridor, there will be optimization of RoW resulting in reduction in land requirement.

As far as social impacts are concerned, it is vivid that all efforts have been made to minimize the social impacts associated with the project. The endeavor to minimize the social impacts started right from the selection of land for the proposed substations. In the instant project, out of total 9 nos. of new/ extension of substations, land for 8 substations was managed in the premises of existing substations only through meticulous planning and required due diligence, which reduced the associated social impacts to a large extent. Only in case of 400/220 KV Jauljivi (GIS) substation fresh private land to the extent of 11.104 acre was secured through willing buyer- willing seller basis on negotiated rate without the involvement of applicable land acquisition regulations. Hence, there are no Project Affected Persons and resultant R & R issues envisaged under the project on account of substation land.

Similarly during construction of transmission lines, efforts were made to avoid damage to standing crops and trees. However, in unavoidable cases, compensation was paid at market rate for damage to standing crops. Compensation process starts with a notice under Indian Telegraph Act, which is served to the landowners informing them 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 inevitability likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owner. A copy of said notice is further marked to the Revenue Officer, who has been authorized by the State Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties, if any objection raised by land owners, the same is sorted out by site in charge of POWERGRID. On approval of compensation, the revenue officer shall further intimate the amount payable to the different land owners and POWERGRID arranges the payment directly to the affected persons through online transfer after due verification of the documents in presence of other witnesses.

Accordingly, in the instant project till December' 2019, a total of 45830 persons were issued notices for 2908.44 ha. of crop area damaged and a total of Rs. 3093.26 lakhs (Rs.309.32 Millions), Rs. 3552.95 lakhs (Rs. 355.29 Millions) and Rs 3304.92 lakhs (Rs 330.49 Millions) were paid during foundation, erection and stringing respectively.

Similarly, a compensation amount of Rs. 2891.96 lakhs (Rs. 289.19 Millions), Rs.539.96 lakhs (Rs. 53.99 Millions) and Rs. 18521.98 lakhs (Rs. 1852.04 Millions) were also paid against 2,98,832 nos. of Trees damaged during foundation, erection and stringing respectively. (Refer **Table-3**).

In compliance with the requirements of guidelines dated 15th October, 2015 issued by Ministry of power, Govt of India regarding land compensation, a total amount of Rs 22225.90 lakhs (Rs. 2222.59 Millions) has been paid till December' 2019 (**Table-4**) in the States which have already adopted the said guidelines (**Annexure-4**).

In view of aforesaid, it may be noted that all possible measures have already been taken not only towards mitigation of adverse environmental impacts leftover after exhausting the options of avoidance and minimization but also to safeguard the interest of PAPs. Moreover, the state governments are also persuaded for enhancing the compensation as per MoP guidelines on RoW compensation. Besides, direct or indirect benefits of the subprojects like the employment opportunity, improved & uninterrupted power supply, improvement in infrastructure facilities, improved commercial activities will outweigh the negative impacts of the project.

Dr. S.S. Singh
Chief General Manager, ESMD

Plate 1: Safety Awareness & Training



Plate 2: Use of PPEs & Safe Working Practices



Plate 3: No disturbance to Utilities at Construction Sites



NOTICE TO LAND OWNER – TREE

POWER GRID CORPORATION OF INDIA LIMITED
 (A Government of India Enterprise)
 SOUTHERN REGION-II
 185-TNHB Ph-II, Dharmapuri Main Road, Tirupattur, 635601.)

पावरग्रिड POWERGRID

NOTICE UNDER THE ELECTRICITY ACT/ 2003 READ WITH THE INDIAN TELEGRAPH ACT, 1885

Book No: TPR- 20 Notice No T 981
 Date 17/01/19

Name of the Line/Section: **+800KV HVDC RAIGARH-PUGALUR TRANSMISSION LINE (PKG-09)**
 Sec-68 Approval Ref : 52/11(PGCIL)/2015-PSPA/11/134 dt. 18-02-2016

To
 Name: **Jaya Prakash P.** Father/Husbands Name: **Purushottaman**
 Village: **Krishnam Palli** Block/Tehsil: **Krishnam Palli**
 Dist.: **Vellore** Pin: Mobie No: **9787089576**

In accordance to section-164 of The Electricity Act, 2003, Ministry of Power, Govt. of India has conferred the powers of Telegraph Authority under Part-III of The Indian Telegraph Act, 1885 to Power Grid Corporation of India Ltd. (POWERGRID) vide Notification No. S.O.1463 (E) published in the Extraordinary Official Gazette of India on 24.12.2003. In exercise of such powers, notice is hereby given that the above mentioned line shall pass through your property/properties as detailed below. While all possible care will be taken to minimize the damage to standing crop and trees in the Right of Way (RoW), certain minimum unavoidable damages/ felling of trees in RoW may take place during construction of said line. All crop damages/ tree felling shall be compensated as per the assessment of Revenue authority or any other competent authority as may be declared or decided by State Government/District administration.

Property Details :
 Name of the Beneficiary: **Jaya Prakash P.** Name of the Village/ Mandal/Tehsil/Circle: **Krishnam Palli**
 (Owner/Tenant/Sharecropper) Name of the District: **Vellore**
 Father's/Husband's Name: **Purushottaman**

Survey/ Plot/ Khasra No: **371/1A, 1B, 2, 371/2A** Aadhaar No. of Beneficiary: **5604 2672 9572**

Crop Details :
372 Patta - 565

Sl. No	Location / Section	Name of the Crop	Affected Crop Area (sq.m)	Activity Fdn./Erec./Strg./Other	Remarks
1					
2					

Tree Details :

Sl. No	Location/ Section	Name of the Tree Species	Approx. Age(Yr.)	Girth (1 m above ground level)	Height (In meter)	Nos.	Activity / Fdn./Erec./ Strg./Other	Remarks
1	56/0-57/0	Patm	30 yrs			30	Shrmm	
2	57/0-58/0	Tamarind	6 yrs			21	"	
3		Almond	8 yrs			9	"	
4		Jamun	9 yrs			47	"	
5								
6								

Acknowledgement

(Signature with Name) _____
 Owner/Beneficiary/Representatives

Copy to: Local/Concerned Revenue Official

*Based on preliminary assessment, However, compensation shall be paid as per actual crop damaged/ no. of tree felled.

For Power Grid Corporation of India Ltd.
 (Signature of Issuing Official) _____
 Name/Seal

(Countersigned by Executive)

 Name/Seal

Book No.: Notice No.:

This is to certify that the damaged crops / feled trees as per enclosed list have been handed over by Powergrid to you / your authorized representative.

For Power Grid Corporation of India Ltd.
 (Signature with Name) _____
 Owner/Beneficiary/Representatives

(Signature of Issuing Official)

 Name/Seal


(Countersigned by Executive)

 Name/Seal

CM 56/0-57/0-58/0 S/W
POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Southern Region Transmission System - II

No. 185, Tamilnadu Housing Board Phase-II, Dharmapuri Main Road, Tirupattur-635 601.  पावरग्रिड

**CERTIFICATE OF COMPENSATION FOR TREE CLEARANCE ISSUED
UNDER INDIAN TELEGRAPH ACT 1885**

CCTC No. **6843**

93/ 97 87089576

Date: 17/01/19

This is to certify that as per the orders of the Engineer, crop / trees mentioned below, were damaged / felled between location No. CM 56/0-57/0 and 58/0 for construction of Power Grid " ± 800kV HVDC Ralgagh - Pugalur Transmission Line Part - IX" and handed over to the land owners.

Particulars of Trees - felled / Crops - damaged: Stringing

- 1. Palm Tree 23 Nos 30x20
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

The above mentioned Trees / Crops were in Survey No. 371/1.B1.102 Patta No. 374.565


Village Taluk Dist and

belongs to Sri / Smt. Jayaprakash P S/O/W/o. Purushothaman

(Address.....)

The Compensation for the trees cut / crops damaged as mentioned above will be paid by **POWERGRID, Tirupattur TLC** as assessed by the Revenue / Forest / Horticulture / Agriculture Departments, Government of Tamil Nadu.

Conditions accepted.


Signature of the landowner


For POWERGRID

Date :

Signature

Place :

ASSESSMENT BY AGRICULTURE AUTHORITIES

DEPARTMENT OF AGRICULTURE

From
Tmt.R.R.Suseela, B.Sc(Agri)
Joint Director of Agriculture
Dharmapuri

To
Assistant General Manager,
Power Grid Corporation of India
185, TNHB Phase-II,
Dharmapuri Main Road,
Tirupattur - 635 601

Lr.No.C2/1269/2018 Date: 04/02/2018

Sir,

Sub : Agriculture - Dharmapuri District - Power Grid corporation of India Ltd - Construction of 800 KV HVDC Raigarh to Pugalur Transmission Line - Unit Rate of Coconut and Palm trees for payment of crop compensation Value Fixed - Reg.

Ref : The Assistant General Manager, Power Grid Corporation of India Ltd., Lr.No. SRTS-II/TPR/TLC/800KV HVDC/ 2018 Dated: 14.02.2018.

As per the reference cited above, the compensation unit value for Coconut and Palm Trees for Crop Damages Value Fixed is given below.

Sl. NO	Name of the tree	Age	Rate/Tree Rs.
1	Coconut Saplings	3 months - 1 Year	3000
2	Coconut Trees	1-5 Years	5500
3	Coconut Trees	6-10 Years	14233
4	Coconut Trees	11-15 Years	21047
5	Coconut Trees	16-25 Years	26946
6	Coconut Trees	> 25 Years	24375
7	Palm Saplings	3 months - 1 Year	969
8	Palm Trees	1-5 Years	2510
9	Palm Trees	5-15 Years	5970
10	Palm Trees	15-30 Years	7845

R.R.Suseela
Joint Director of Agriculture
Dharmapuri

Copy to All Assistant Directors of Agriculture, Dharmapuri District.

Handwritten notes:
Suseela
18/2/18
5/4/2018

Department of Agriculture

Date: 02/07/2019

From
Assistant Director of Agriculture,
Perambur
Vellore Dist.

To
The Chief Manager,
Power Grid Corporation of India Limited,
185, TNHB Phase-II,
Dharmapuri main road,
Tirupattur-635 601

Sir,

Sub: - Agricultural tree valuation-Report submission of Power Grid Corporation of India Ltd, 800KV HVDC Raigarh-Pugalur Transmission Line Part-IX-reg

Ref: SR-I/TPR/800KV/HVDC/F-128/2017/ Dated:


Here with I have attached the farmers tree compensation valuation report as per the reference cited above.

Attachment:
1 Farmers List Report.

Assistant Director of Agriculture
Perambur
Vellore Dist.

ASSESSMENT BY REVENUE AUTHORITIES


Sl. No.	Loc. No.	Notice No.	CCTC No.	Name & Address of Land Owner	Survey/Patta No.	Type of work	Name of Tree	No. of Trees to	Age	Rate Per Tree	Amount
6	CM 58/1-59/0	TPR 64 T 3182	11256 11257	thiruganasamthi S/o kuppasamy Chokkarishikuppam Pernambut Vellore	88/4a patta 953	Stringing	Palm	3	38yrs		
7	CM 56/0-57/0- cor	TPR 20 T981	6843	Jayaprakash.P S/O Purushothoman Krishnampalli Pernambut Vellore	/1 B1,82,371/2A, patta 565	Stringing	Palm	23	30yrs		
8	CM 58/0-58/1	TPR 20 T987	6848	Krishnamoorthy S/O Muthuvel M.V.kuppam Pernambut Vellore	90/13 patta 556	Stringing	Coconut	6	35yrs		
9	CM 59/0-60/0	TPR 20 T 983	6845	Selvasekar.V S/O vadivelu Chokkarishikuppam Pernambut Vellore	114/1D,169/1 patta 990	Stringing	palm	16	35yrs		
10	CM 59/0-60/0	TPR 64 T 3182	11256	Sumathi w/o Baskar Chokkarishikuppam Pernambut Vellore	88/4a patta 953	Stringing	Palm	4	30yrs		


 Assistant Director of Agriculture
 Pernambut

OWNERSHIP VERIFICATION CERTIFICATE BY REVENUE AUTHORITY

684/844 982 cm 56/0-58/0 SW
கிராம நிர்வாக அலுவலர் சான்று

No: 2183 **VAO CERTIFICATE**



பேரணாம்பட்டி தாலூக்கா உமையாபுரம் பிரதான அலுவலகம் கிராமத்தை சேர்ந்த
 P. அம்பையாநாதன் தல H. சேனாநாதன் கையேடு
 9787089576

என்பவருக்கு கொடுக்கப்படும் சான்று.

மேற்படி நபருக்கு 37/191, 182, 212, 372 லு எண்ணில் 2.62.50 விசைநீரணை
 உள்ள நிலம், புட்டா எண் 565 லு உள்ளது தற்சமயம் கீழ்க்கண்ட பெயரில்
 சாதாரண செய்துள்ளார். ஹரி, சூரன் 24, நாகன், சீதாரம் மற்றும்
 சேனாநாதன்

இந்நிலத்தின் வழியாக தற்சமயம் பவர்கிட்ட நிறுவனத்தினரால் அமைக்கப்பட்டு வரும் உயர் மின் அழுத்த
 கேபுலர்கள் / மின் கம்பி அமைக்கும் பணி நடைபெற்று வருகிறது.


மேலும் மேற்படி நபர் திரு. P. அம்பையாநாதன் என்பவரின்
 வங்கி கணக்கு விபரம் Bank Details of the above mentioned person Sn / Smt.....

வங்கியின் பெயர் / Name of Bank..... **INDIAN OVERSEAS BANK,**
 வங்கியின் முகவரி / Address of Bank..... **B/3, Ambur main Road, Mailpatti**
 சேமிப்பு கணக்கு எண் / SB Account No. **134101000001501**
 RTGS / IFSC Code..... **IOBA0001341**
 இணைப்பு / Encl
 வங்கி கணக்கு புத்தக முதல் பக்கம் நகல் / Bank Pass Book 1st Page Xerox

திரு உ. ரிமையாள் கையொப்பம்

கிராம நிர்வாக அலுவலர்
 கிராம நிர்வாக அலுவலர்,
 34, செண்டத்தூர்,
 பேரணாம்பட்டி வட்டம்

LAND OWNER PATTA / CHITTA



தமிழக அரசு
வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : வேலூர் வட்டம் : பேரணாமபட்டு


வருவாய் கிராமம் : செண்டத்தூர் பட்டா எண் : 565

உரிமையாளர்கள் பெயர்

1. புருஷோத்தமன் மகன் ஜெயபிரகாஷ்

		நன்செய்		புன்செய்		மற்றவை	
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை
புல எண்	உட்பிரிவு	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை
351	3A2N	--	--	0 - 2.50	0.15	--	--
371	1B1	--	--	0 - 79.50	3.92	--	--
371	1B2	--	--	0 - 30.00	1.48	--	--
371	2A	--	--	0 - 79.00	3.90	--	--
372	-	--	--	0 - 71.00	3.50	--	--
				2 - 62.00	12.95		


குறிப்பு2 :



1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 04/13/047/00565/90786 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

2. இத் தகவல்கள் 26-10-2018 அன்று 11:31:20 AM நேரத்தில் அச்சடிக்கப்பட்டது.

3. கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

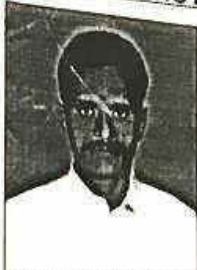


26 OCT 2018

ONLINE PAYMENT MADE TO THE BANK ACCOUNT OF LAND OWNER

SPACE FOR PHOTO

Account No :134101000001501




INDIAN OVERSEAS BANK

MINIMUM BALANCE TO BE MAINTAINED IN SAVINGS BANK ACCOUNT		Charges will be Levied for non maintenance of minimum balance as per circulars in force
With cheque facility	Without cheque facility	
Rural & Semi-Urban branches	Rs. 500/- Rs. 1000/- Rs. 250/-	
Other branches Pensioner's S.B. Account	Rs. 100/- Rs. 500/- Rs. 5/-	

Branch: [1341] MAILPATTI - 1341 Phone: 04171242250
 S NO 200 B/3, AMBUR MAIN ROAD, MAILPATTI
 VELLORE-635805 TAMIL NADU, INDIA
 MICR: 632020306 IFSC: IOBA0001341 E-Mail: IOB1341@iob.in
 Account No: 134101000001501 Cust Id: 5390255
 Scheme Code: SBPUB Opened On: 09-01-2003 MOP: SELF OPERATED
 MR..JAYAPRAKASH P

S/O PURUSHOTHAMAN
 7/14, PILLAIYAR KOIL STREET, KRISHNAMPALLI
 CHENDATHUR, PERNAMBUT
 VELLORE, TAMIL NADU, INDIA, PIN-635805
 Nomination: NOT REGISTERED



Sample Safety Checklists: Foundation

Document No: Safety Checklist TL Const: 02

POWER GRID CORPORATION OF INDIA LIMITED
CORPORATE OPERATION SERVICES
Safety Inspection Report Foundation work

Region: **SR-II** TL Construction Office: **Tirupattur TLC** Date of Inspection: **11-01-2018**

Name of the TL: **800KV HVDC Raigarh-Pugalur TL Part-IX being executed by JV of UNITECH and SKIPPER LTD.**

Loc. No. **MDP 2/0** Classification of Foundation and Type of tower: **C+0 DFR**

Main Contractor: **Uttarakh Power Transmission Ltd.** Sub contractor: **AK Hyash Const**

SLNo	Description	Observations	Remark
1	Check whether Supervisor / Gang leader had issued instructions to workers before start of work on that day.		
2	a) All workers are using PPEs at site i.e. Safety Helmets, Rubber Gum Boots, Hand Gloves. b) POWERGRID Officials are using PPEs at site.	Safety helmet - No. in use / total worker = Rubber Gum Boot - No. in use / total worker = Hand Gloves - No. in use / total worker = ✓ Yes / No.	
3	Distance of Dumped excavated soil of all four sides from the edge of the pit.	Yes	
4	Slope of cutting edge of all four sides.	Yes	
5	a) De watering arrangement, if required. b) If yes, Distance of disposal of water.	N/A	
6	Installation of Shoring & Shuttering, if required.		
7	Adequate warning & Barricading of the pit for protection have been made.	Yes	
8	The Blaster is valid license holder. Yes / No. Adequate arrangement made to inform public by caution marking (Red flag) / Public Notice) and signal man posted.	Yes	
9	Strong ladder provided in the pit.	Yes	
10	Jacks for supporting the template is placed at safe distance.	Yes	
11	Distance of construction materials, Concrete Mixer / Compressor placed from edge of pit.	Yes	
12	Whether arrangements for electrical loose joints and barricading of electrical panels have been made.	N/A	
13	Whether all Safety aspects taken care of for concreting.		
14	First Aid box with required items are available at site and (Name & No.) of First Aid trained persons	Yes	
15	Action taken for violation for safety norms, if any.		
16	Any other points specific to location.		

REP. OF CONSTRUCTION AGENCY			REP. OF POWERGRID		
Name	Designation	Signature	Name	Designation	Signature
P. Sambasubharanyam	Sr. Supervisor	[Signature]	A. Nagaraj	JE	[Signature]

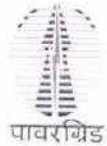
OTHERS:

1.			1.	P. Anand	Sr. Engr	[Signature]
2.			2.			

Copy : 1. Project Manager Const. Agency M/s 2. GM of Const. Agency M/s
3. Site In-charge PGCIL 4. GM Projects PGCIL
5. Head of the Region 6. GM CMG / CC, Gurgaon.

Sample Safety Checklist Erection:

POWER GRID CORPORATION OF INDIA LIMITED
(A Govt. of India Enterprise)



TOWER ERECTION

1. CHECK FORMAT

NAME OF LINE: 800 KV HVDC Raigarh - Pugalur T/L

NAME OF CONTRACTOR: M/s Unitech Power Transmission Limited

LOCATION NO.: 53/a. TYPE OF TOWER: D+3.

ITEM CHECKED	RESULT	OBSERVATION IF ANY
1) Setting Period of Foundation is allowed for atleast 14 days as per specn. Backfilling is O.K.	✓ YES / NO	
2) All Tested Tools & Plants & Safety Equipments in working Conditions are available at Site	✓ YES / NO	
3) All Tower Members, Nuts/Bolts are available at Site without any damage. Bent or Rusting	✓ YES / NO	
4) Benching/Revetment, if any, completed. If not, then programme of Completion	YES / NO ✓	
5) Shutdown of Power Line, if required, is arranged	YES / NO ✓	
6) Required no. of Safety Helmets, Belts & Shoes are being used	✓ YES / NO	
7) First Section is completely braced and all plane diagonals are placed in proper position.	✓ YES / NO	
8) Guying of Tower provided as per approved drawings and norms. Guying to be terminated on firm ground	✓ YES / NO	
9) All Nuts/Bolts, Flat or Spring Washers are provided as per approved drawings.	✓ YES / NO	To be checked
10) All Horizontal Bolt heads are facing inside & Vertical Bolt heads facing upwards	✓ YES / NO	u
11) Subsequent Section are erected only after complete Erection & Bracing of previous Section	✓ YES / NO	u
12) Any undue Stress, Bending/Damage of member during Erection noticed	✓ YES / NO ✓	u
13) Any filling of holes/cutting of members during Erection observed	YES / NO ✓	u
14) Any Heavy hammering of Bolt causing damage of threads noticed	YES / NO ✓	To be checked
15) Any Substitute of Tower member Erected, if Yes member nos.	YES / NO ✓	u
16) Tighting is done progressively from Top to Bottom	✓ YES / NO	To be checked

- 17) All Bolts at the same level are tightened simultaneously YES/ NO To be checked
- 18) Slipping or Running over Nuts/Bolts are replaced by new ones YES / NO u
- 19) Threaded portion of Bolts projected outside of Nuts is not less than 3mm YES/ NO u
- 20) Punching of threads project outside is done at 3 positions on diameter YES / NO u
- 21) All left over holes are filled with correct size of Bolts/Nuts YES/ NO To be checked
- 22) Vertically of Tower is checked with help of Theodolite for both Longitudinal & Transverse direction. This is within the specified limits YES / NO u
- 23) Details of missing member, Nuts, Bolts etc. YES / NO To be checked

24) TOWER ACCESSORIES:

All the following Tower Accessories are fixed as per specn. or approved drawing

- a) Number Plate YES / NO
 - b) Danger Plate YES / NO
 - c) Phase Plate YES / NO
 - d) Anti-Climbing Devices/barbed wires YES / NO
 - e) Aviation Signal/Paints as per requirement/Specifications YES / NO
- } Yet to be Installed
- 25) Tack Welding is done as per specn. Using standard Quality of Welding rods YES / NO
 - 26) Zinc rich (90%) cold galvanising paint applied over Tack Welding YES / NO
- } Yet to be done.

Certificate: Tower Erection is Complete in all respects and Footing Resistance within permissible limit.

FOR CONTRACTOR:

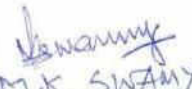
SIGNATURE 

NAME **V. NAVEEN KUMAR**

DESIGNATION **ENGINEER**

DATE **Unitech Power Transmission Ltd**

FOR POWER GRID:

SIGNATURE 

NAME **M.K SWAMY**

DESIGNATION **Jr Eng**

DATE



K. MARIRASU,
Engineer,
Moody International (I) Pvt. Ltd.,

VERIFIED & APPROVED:

SIGNATURE

NAME

DESIGNATION

DATE

APPENDIX-1



भारतसरकार
GOVERNMENT OF INDIA
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE
Regional Office (WCZ)
Ground Floor, East Wing
New Secretariat Building
Civil Lines, Nagpur - 440001
E-mail: apccfcentral-ngp-mef@gov.in

F.No. FC-III/MH-30/2018-NGP/4198

Date: 5.09.2018

To,

The Secretary,
Revenue and Forest Department,
Hutatma Rajguru Chowk
Madam Cama Marg
Mantralaya, Mumbai - 400032.

Sub: Diversion of 432.6791 ha of Forest Land in favour of Powergrid, Bramhapuri for Construction of 800 KV D/C Raigarh - Pugalur Transmission Line passing through the Forest area in total 76 Villages of Four Forest Division in Chandrapur District in the State of Maharashtra - Regarding.

Sir,

I am directed to refer to State Government of Maharashtra letter no. FLD-2018/C.R.185/F-10 dated 07.06.2018 and APCCF & Nodal Officer (FCA), Maharashtra letter no. Desk-17/NC/II.D- /428/18-19 dated 23.05.2018 on the above subject seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 and APCCF & Nodal Officer (FCA), Maharashtra letter no. Desk-17/NC/II.D-12610/1028/18-19 dated 13.08.2018 forwarding additional information as sought by this Office vide letter of even number dated 29.06.2018 and to say that the said proposal has been examined and recommended by the Regional Empowered Committee constituted under Section - 4 of the Forest (Conservation) Act, 1980.

After careful examination of the proposal of the State Government and on the basis of the approval of the proposal by the Regional Empowered Committee, the Central Government hereby accords 'in-principle' under Section - 2 of the Forest (Conservation) Act, 1980 for diversion of 432.6791 ha of Forest Land in favour of Powergrid, Bramhapuri for Construction of 800 KV D/C Raigarh - Pugalur Transmission Line passing through the Forest area in total 76 Villages of Four Forest Division in Chandrapur District in the State of Maharashtra subject to the fulfilment of the following conditions:

- (i) Legal status of the diverted forest land shall remain unchanged;
- (ii) Compensatory afforestation will be carried out in 866.00 ha double degraded forest land twice in extent to the forest land being diverted, shall be raised and maintained by the State Forest Department at the cost of the User Agency;
- (iii) As the proposed project comes under the corridor of Indravati- Tadoba Andhari Tiger Reserve and Chaprala Wildlife Sanctuary, the User Agency shall increase the height of towers in the forest area from 18.0 meters to 24.0 meters, in accordance with the recommendations made by the Wildlife Institute of India, Dehradun.

abuse

- (iv) The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation, at the current wage rate, to the State Forest Department. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years;
- (v) The State Government shall charge the Net Present Value (NPV) of the forest land being diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No. 202/1995 and the guidelines issued by this Ministry vide its letter No. 5-3/2007-FC dated 05.02.2009 in this regard;
- (vi) At the time of payment of the Net Present Value (NPV) at the then prevailing rate, the User Agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India;
- (vii) All the funds received from the user agency under the project, except the funds realized for regeneration/ demarcation of safety zone, shall be transferred to Ad-hoc CAMPA, through e-challan, in the Saving Bank Account pertaining to the State concerned;
- (viii) The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
- (ix) No labour camp shall be established on the forest land;
- (x) The User Agency shall provide firewood preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;
- (xi) The boundary of the diverted forest land shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar;
- (xii) No approach road shall be constructed in the forest area for transportation of steel and other material required for the transmission line. As far as possible the User Agency shall use the existing road and the proposed RoW for the transportation of the material and in the event of non-availability of such facilities, the User Agency shall transport material manually without construction of any path.
- (xiii) The forest land shall not be used for any purpose other than that specified in the proposal;
- (xiv) The User Agency shall ensure that because of this project, no damage is caused to the wildlife available in the area;
- (xv) Comments of the PCCF (Wildlife) on special protection measures, if any required to be taken for the conservation and protection of the Wildlife specially Schedule-I species should be obtained and suggestions/recommendations made by the PCCF (Wildlife) should be implemented by the User Agency during the construction of the transmission line. A report on such measures should be submitted to the Regional Office along with the compliance report of Stage-I approval.
- (xvi) Width of right of way for the transmission line shall be limited to 69 meters;
- (xvii) The layout plan of the proposal shall not be changed without the prior approval of the Central Government;

sbjgc

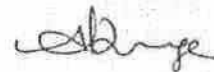
- (xviii) The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;
- (xix) The user agency shall install circuit breakers at suitable places besides maintain necessary ground clearance to prevent electrocution of wild animals;
- (xx) The user agency shall install 'bird reflectors' at appropriate places, in consultation with the PCCF (Wildlife), Maharashtra and detail of the same shall be submitted to the Regional Office, along with the Stage- I compliance report;
- (xxi) The recommendations to be made by the NTCA, New Delhi, shall be a binding on the User Agency. The User Agency shall ensure compliance of additional conditions, if any recommended by the NTCA, New Delhi and a report on the same shall be submitted along with the compliance of Stage- I approval;
- (xxii) Felling of trees shall be restricted to 47061 trees. Any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;
- (xxiii) To minimize the felling for construction of transmission line, user agency shall comply with the following guidelines:
- (a) Below each conductor, width clearance of 10 mts. would be permitted for carrying the tension stringing equipment. The trees on such strips may be felled but after stringing work is completed, the natural regeneration will be allowed to come up.
 - (b) One outer strip may be left clear to permit maintenance of the transmission line;
 - (c) In the remaining width the right of way felling/pollarding/pruning of trees will be done with the permission of the local forest officer whenever necessary to maintain the electrical clearance, trees shall be allowed to be felled or lopped to the extent required, for preventing electrical hazards by maintaining the minimum 9.0 meter clearance between conductors and trees. The sag and swing of the conductors are to be kept in view while working out the minimum clearance mentioned as above;
 - (d) User agency in consultation with the State Forest Department prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) in right of way under the transmission line, and provide funds for execution of the said scheme to the State Forest Department and a scheme to this effect will be submitted along with Stage- I compliance.
 - (e) In case a portion of the transmission lines to be constructed is located in hilly areas, where adequate clearance is already available, trees shall not be cut;
- (xxiv) The user agency in consultation with the State Government shall create and maintain alternate habitat/home for the avifauna, whose nesting trees are to be cleared in this project. Bird's nests artificially made out of eco-friendly material shall be used in the area, including forest area and human settlements, adjoining the forest area being diverted for the project and a scheme to this effect will be submitted along with Stage- I compliance.
- (xxv) The State Government shall ensure that settlement of rights, in terms of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, has been completed in accordance with the Guidelines issued by the MoEF&CC in this regard;



- (xxvi) Provision of Chain link fencing to protect the CA Land from being encroached has to be incorporated in CA scheme of all the Divisions and the revised CA scheme may be submitted along with the compliance report.
- (xxvii) The User Agency shall submit six monthly self-compliance reports as on 1st January and 1st July of every year to this office as well as to the Nodal Officer of the State;
- (xxviii) The State Government shall monitor compliance of conditions of Forest Clearance and shall submit in this regard yearly report as on 31st December of every year;
- (xxix) Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;
- (xxx) The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project; and
- (xxxi) Grant of working permission to the extant proposal may be considered by the State Government in accordance with the provisions as contained in the MoEF&CC's Guidelines dated 28.08.2015.

After receipt of a report on the compliance of conditions no (iv), (v), (vii), (xv), (xx), (xxi), (xxiii)(d), (xxiv), (xxvi) and undertakings, duly authenticated by the competent authority in the State Government, in respect of all other conditions, from the State Government, formal approval will be considered in this regard under Section-2 of the Forest (Conservation) Act, 1980.

Yours faithfully,



(Dr. E Arockia Lenin)
Scientist 'C'

Copy to:

- i. The PCCF, Government of Maharashtra, Nagpur.
- ii. The Addl. PCCF & Nodal Officer (FCA), Government of Maharashtra, Nagpur.
- iii. Director (RoHQ), Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi.
- iv. User agency.
- v. Guard file.



(Dr. E Arockia Lenin)
Scientist 'C'



Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

6th Floor, Vayu Wing
Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi 110 003
Date: 29.08.2019

F.No.6-104/2019 WL

To

All Members
Standing Committee of NBWL

Sub: Minutes of 54th Meeting of the Standing Committee of National Board for Wild Life- reg.

Sir / Madam,

Kindly find enclosed copy of the Minutes of 54th Meeting of the Standing Committee of National Board for Wild Life held on 18th July 2019 through Video Conference under the chairmanship of Hon'ble Union Minister of Environment, Forest and Climate Change.

Yours faithfully,

(Dr Pasupala Ravi)
Scientist C

Encl: As above

Distribution

- (1) Secretary, MoEF&CC
- (2) DGF&SS, MoEF&CC
- (3) Member Secretary, NTCA
- (4) ADGF(FC), MoEF&CC
- (5) ADGF(WL), MoEF&CC
- (6) Director, WII, Dehradun
- (7) Director, GEER Foundation, Gandhinagar, Gujarat
- (8) Prof. R. Sukumar, Member, NBWL
- (9) Dr. H.S. Singh, Member, NBWL
- (10) Pr. Secretary (Dept. of Envi., Forest, Science & Tech.), Govt. of Andhra Pradesh
- (11) Shri Noyal Thomas, IGF & Director (PE)

Copy to

- (1) PS to Hon'ble MoEF&CC
- (2) PPS to DGF&SS, MoEF&CC
- (3) PPS to Addl.DGF(WL), PPS to IGF(WL)
- (4) CWLW, Bihar / CWLW, Gujarat / CWLW, Jammu & Kashmir / CWLW, Jharkhand / CWLW, Odisha / CWLW, Rajasthan / CWLW, Madhya Pradesh / CWLW, Maharashtra CWLW, Uttarakhand / CWLW, Tamil Nadu

The State Board for Wildlife in its meeting dated 04/07/2014 and the state government has clarified that no Great Indian Bustard is visible in this sanctuary. Wildlife institute of India in its survey report of 2011 did not record the presence of the bird in the sanctuary but it recommended for habitat restoration in open and less disturb areas having potential for Great Indian Bustard. The state board has recommended the proposal for de-notification in its above mentioned meeting.

After discussions, the Standing Committee agreed in principle to the State Government's proposal for rationalization of the boundary of the Son Chiriaya Sanctuary subject to the condition that the State Government will prepare and implement a GIB conservation Management and Habitat Restoration Plan in the less disturbed area of the sanctuary. The State Government shall submit the draft notification for rationalization of the boundary of the Son Chiriaya Hokan Bird (Great Indian Bustard) Sanctuary to the Ministry of Environment Forest and Climate Change along with the proposal for re-notification of ESZ.

54.4.10 Proposal for use of 25.149 ha of forestland in corridor of Tadoba - Andheri Tiger Reserve for construction of 800 kV, D/C Raigarh – Pugalur Transmission line by Power Grid Corporation of India Limited in Chandrapur District, Maharashtra State

The IGF(WL) briefed the Standing Committee and stated that use of 432.679 ha of forest land is required for construction of 800 kV, D/C Raigarh – Pugalur Transmission line by Power Grid Corporation of India Limited in Chandrapur District, Maharashtra out of which 25.149 ha of forestland is required in the corridor of Tadoba – Andhari Tiger Reserve for which proposal has been submitted by the user agency. He stated that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Increase the height of the lowest conductor from 18 m to 24 m.
- (2) Install Bird reflectors at appropriate places.
- (3) As decided in the 8th meeting of State Board for Wildlife held on 20th February 2014, that the project proponent shall deposit 2% cost of the proposed project which passes through the deemed ESZ should be deposited with the CCF & FD, Tadoba – Andhari TR Chandrapur for the habitat improvement of Tadoba – Andhari Tiger Reserve and adjoining forests.

Further the IGF(WL) stated that the NTCA has also recommended the project subject to the strict adherence to the following mitigation measures:

- (i) **Insulated cables / underground cables** should be used in the stretch of proposed transmission line passing through the forest and important wildlife area across its entire length.
- (ii) All power lines within 2 km of forest land scrub patches and important wildlife areas across its entire length will be marked with bird diverters as shown in Annexure-I (with solar powered right flashers) spaced at 10 m intervals. In areas without insulated cable, Power Grid shall maintain > 1.5m spacing (larger than the wrist-to-

wrist or head-to-foot distance of a bird) between energize components and grounded hardware.

- (iii) In compliance with MoEFCC's guidelines, no clearance of vegetation shall be allowed for open areas with sparse vegetation (such as scrublands, grasslands, wetlands etc.) A 5.8 m vertical clearance from the vegetation and 1.2 m horizontal clearance from the vegetation could be permitted in other areas of the transmission line. These dimensions are based on clearance requirements for power lines under Rules 77, 79, and 80 read with Rule 82, 93) in the India electricity Rules 1956 (as amended up to 20 November 2000) and local forest officials should monitor strict implementation of this on ground.
- (iv) The alignment of the Power line should be made such that minimum numbers of trees are felled. Any felling/pollarding / pruning to trees for allowing electrical clearance / maintenance will be done with the permission of the local DFO. Only those trees that are of sufficient height to compromise the requirements of minimal vertical and horizontal clearance from the conductor wires at maximum sag point should be lopped.
- (v) As far as possible vegetation clearing along the stretches of transmission corridor passing through forested areas may be minimized or avoided by increasing the right of tower structures to maintain safe vertical clearance over natural vegetation to prevent disruption of vegetation or forest continuity.
- (vi) The user agency should adhere to the guidelines issued by Hon'ble National Green tribunal in its judgment in Janajagarithi Samiti versus Union of India and Others (Appeal No.10 of 2012) related to transmission line passing through the forest in Western Ghats.
- (vii) Forest Clearance Division, MoEF&CC in consultation with Central Electricity Authority had also issued guidelines pertaining to transmission lines passing through the forests. The user agency should follow these guidelines while constructing the Power line.
- (viii) Periodic clearing of vegetation along the power line may bring up invasive species. The plantation shall be carried out with the Forest Department below the power line.

Mandatory safeguards during construction phase

- (a) No construction / maintenance work shall be permitted between 6.0 PM to 7.0 AM. Labour camps should be at least 1 km away from the boundaries of the forestland along the entire length of the proposed transmission line.
- (b) In compliance with MoEFCC's guidelines, construction of new approach / across route will require prior approval under the Forest (Conservation) Act, 1980.

Post-construction mandatory safe guards

- (i) The user agency shall deposit 5% of the total cost to the Tadoba - Andhari and Indravati Tiger Reserve Management (2.5% each) which should utilize this money for eco-restoration, prey augmentation, reducing public dependence on forests and promoting local livelihoods in the landscape.
- (ii) The Chief Wildlife Warden, Maharashtra should constitute a monitoring committee comprising of members from the local forest officials, MoEF&CC and NTCA Regional

Office and user agency to oversee the implementation of the project in adherence to the mitigation measures suggested herein and / or by the State Forest Department.

Further the IGF(WL) stated that the State Board for Wild Life has also recommended the proposal in its meeting held on 05.12.2018.

After discussions, the Standing Committee decided to recommend the proposal subject to the conditions that

- (a) The user agency shall deposit 4% of the total cost to the Tadoba - Andhari and Indravati Tiger Reserve Management (2 % each) which should utilize this money for eco-restoration, prey augmentation, reducing public dependence on forests and promoting local livelihoods in the landscape.
- (b) The project proponent will comply with all the conditions imposed by the State Chief Wildlife Warden and the NTCA except the condition No.(3) of the State CWLW and NTCA's condition No.(i) under post construction mandatory safe guards related to deposit of the certain percentage of project cost for habitat improvement which shall be read as condition (a) above. **The use of insulated transmission line cables over the ground / or underground transmission line cables passing through the protected areas should be the first priority of the user agencies.**
- (c) The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State Chief Wildlife Warden to Govt. of India.

54.4.11 Proposal for renovation of Chaurakund – Khopan – Kholmar road passing through Melghat Tiger Reserve, Maharashtra State

The IGF(WL) briefed the Standing Committee and stated that the proposal is for up-gradation of existing road of 17.5 km (14.0 km metal road and 3.5 km murum road) into cement road in the existing width of 6.0 m passing through the core (10.0 km) and buffer area (7.5 km) of Melghat Tiger Reserve. He stated that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Speed breakers at certain intervals should be created where there is more movement of wild animals to and fro. Also speed of vehicles should be kept as low as possible and sounding of horns are not allowed in the portion and signages at proper places should be fixed.
- (2) The project proponent to ensure the movement of wild animals and proper drainages and free flow of all natural streams, rivulets, etc, crossing the road.
- (3) As decided in the 8th meeting of State board for Wildlife held on 20th February 2014 the project proponent shall deposit 2% of the cost of the proposed project (12.71 crore) which passes through Melghat Tiger Reserve and it notified ESZ should be deposited with the foundation of Melghat Tiger Reserve for habitat development, protection and conservation of Melghat Tiger reserve and adjoining forests. Sanctuary and adjoining forests.



भारत सरकार

GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

Regional Office (South Eastern Zone),

1st & 2nd floor, HEPC Building, No.34, Cathedral Garden Road,

Nungambakkam, Chennai - 600034, Tel. 044-28222041,

e-mail: ro.moefccc@gov.in / roefccc@gmail.com



F.No.4-APB065/2018-CHN/1448

Date 10th September, 2018

To,

The Principal Secretary to the Government of Andhra Pradesh,
Environment, Forests, Science & Technology Department,
Government of Andhra Pradesh, Room No.268, 1st Floor, 4th Block,
Andhra Pradesh Secretariat, Velagapudi, Amaravati Guntur District-522503

Subject: Diversion of 64.23 ha of forest land for construction of 800 KV HVDC Raigarh-Puglur Transmission Line in Kurnool, Proddatur, Kadapa and Chittoor (West) Forest Divisions in favour of the Additional General Manager, Power Grid Corporation of India Limited, Secunderabad -reg.

Sir,

Please refer to the State Government's letter No. EFS01-12021/78/Section-II/2018 dated 25.07.2018 and online proposal No. FP/AP/TRANS/31686/2018 seeking prior approval of the Central Government for diversion of forest land in accordance with Section '2' of Forest (Conservation) Act, 1980 for the above mentioned project.

After careful consideration of the proposal of the State Government and as recommended by the Regional Empowered Committee (REC), I am directed to convey the Central Government's in principle approval (Stage-I) under Section '2' of Forest (Conservation) Act, 1980 for diversion of 64.23 ha of forest land for construction of 800 KV HVDC Raigarh-Puglur Transmission Line in Kurnool, Proddatur, Kadapa and Chittoor (West) Forest Divisions in favour of the Additional General Manager, Power Grid Corporation of India Limited, Secunderabad, subject to the following conditions:-

1. The legal status of forest land shall remain unchanged;
2. Demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered, at an interval of 20 meters, **by** the user agency in consultation with the DFO concerned, at the project cost before the Stage II approval;
3. The State Forest Department shall carryout Compensatory Afforestation (CA) and its maintenance over 128.50 ha out of 140 ha of degraded forest land identified in Compt No 1, Dobbudupalli RF, Dhodium Beat, Muddanur Range in Proddatur Forest Division at the cost of the user agency. A minimum of 1000 plants / ha of diverted area shall be planted in the identified CA land. In case,

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Date: 10/09/18 RSL

the required numbers could not be planted therein, the balance shall be planted in the nearby RF/PF by the State Forest Department at the cost of the user agency and a map along with DGPS co-ordinates of such forest area shall be furnished along with the compliance report;

4. The degraded forest land identified for CA and the approved CA scheme shall not be changed without the prior approval of the Central Government and the State Forest Department shall ensure that the amount realized from the user agency towards CA should not be left unspent as recommended by the REC;
5. The State Government shall charge the Net Present Value of the diverted forest land measuring **64.23 ha** from the user agency as per the orders of the Hon'ble Supreme Court dated 28.03.2008 and 09.05.2008 in IA Nos. 826 in 566 with related IA's in Writ Petition (Civil) No.202/1995;
6. Additional amount of Net Present Value (NPV) of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charged by the State Government from the user agency. The user agency shall furnish an undertaking to this effect;
7. The funds received from the user agency towards Compensatory Afforestation and Net Present Value, etc under this project shall be deposited in the Corporation bank account of the Andhra Pradesh State CAMPA. **The user agency shall compulsorily deposit the CA and other levies only by generating challan through the Ministry's website;**
8. The user agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (*preferably medicinal plants*) under the transmission line, and provide funds for execution of the said scheme to the State Forest Department;
9. The maximum width of right of way for the proposed transmission line on the forest land shall not be more than 69 mtrs;
10. The forest land proposed for diversion shall under no circumstances be transferred / sublet to any other agency, department or person without prior approval of the Central Government;
11. The layout plan of the proposal shall not be changed without the prior approval of the Central Government. The user agency shall furnish an undertaking to this effect;
12. The user agency shall provide fire wood, preferably alternate fuel to labourers working at the site to avoid damage/tree felling;

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13. Disturbance shall be kept minimal by creating labour camps outside the forest area as far as possible and it will be the responsibility of the user agency to ensure that the labourers & staff engaged in execution of work do not destruct nearby forest flora & fauna;
14. The enumerated trees on the 69 meter width strip (right of way) would have to be felled but after stringing work is completed, natural regeneration shall be allowed to come up. Felling / pollarding / pruning of trees shall be done with the permission of the local forest officer wherever necessary for the maintenance of transmission lines;
15. In case the portion of transmission line to be constructed is located in hilly areas, where adequate clearance is already available, trees shall not be cut;
16. The State Forest Department shall ensure to plant adequate number of red sanders trees at the project cost to compensate for the felling of the species involved in this project;
17. During construction of transmission line, pollarding / pruning of trees located outside the above width of the strip, whose branches / parts infringe with conductor stringing , shall be carried out to the extent necessary, as may be decided by the local forest officer;
18. The user agency at the project cost shall provide bird deflectors, which are to be fixed on the upper conductor of the transmission line at suitable intervals to avoid bird hits;
19. All efforts shall be taken to minimize felling of trees and the State Forest Department shall carry out translocation of trees wherever feasible instead of resorting to felling, at the cost of the user agency;
20. The user agency and the State Government shall ensure compliance to Ministry's guidelines F.No 7-25/2012-FC dated 5th May, 2014 and 19.11.2014 and provisions of all Acts, Rules, Regulation and Guidelines of the Ministry, for the time being in force, as applicable to the transmission line projects;
21. The total forest area utilized for the project shall not exceed **64.23 ha** and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal. The user agency shall furnish an undertaking to this effect;
22. The progress of the Compensatory Afforestation under the jurisdiction of Chittoor (West), Kadapa, Kurnool and Proddatur (WL) Divisions shall be

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monitored by the respective Circle Head and a copy of such monitoring report shall be forwarded to the Regional Office;

23. Any other conditions that the Central Government or Addl. PCCF(Central) of the Regional Office, Chennai may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied by the user agency;

24. In the event of failure to comply with any of the above conditions the user agency is liable for penal action as decided by the Additional PCCF (Central), Regional Office, Chennai.

After receipt of the compliance report on above mentioned conditions, the proposal will be considered for final approval. This in-principle approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non-compliance of the above conditions, this in-principle approval shall automatically stand revoked after 5 years.

Yours faithfully,


(D.Sathiyam)

Conservator of Forests (Central)

Copy to:-

1. The Director General of Forests & Special Secretary to Govt. of India, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
2. The Principal Chief Conservator of Forests, Forests Department, Govt. of Andhra Pradesh, Aranya Bhavan, K.M. Munshi Road, Nagarampalem Guntur-522004.
3. The Additional Principal Chief Conservator of Forests/Nodal Officer (FCA), Office of the Principal Chief Conservator of Forests, Forests Department, Govt. of Andhra Pradesh, Aranya Bhavan, K.M. Munshi Road, Nagarampalem, Guntur-522004.
4. The Director, RO(HQ) Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
5. The Additional General Manager, Power Grid Corporation of India Limited, 765 KV Substation, Orvakal Mandal, Kurnool District, Andhra Pradesh-518010.
6. Guard file.


(D.Sathiyam)

Conservator of Forests (Central)

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भारत सरकार

GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

Regional Office (South Eastern Zone),

1st & 2nd floor, HEPC Building, No.34, Cathedral Garden Road,

Nungambakkam, Chennai - 600034, Tel. 044-28222041,

e-mail: ro.moefccc@gov.in / roefccc@gmail.com



F.No. 4-TSC117/2018-CHN /0504
Date 05th April, 2018

To

The Principal Secretary to the Government,
Environment, Forests, Science & Technology Department,
Telangana State Secretariat, Hyderabad

Subject: Diversion of 20.5282 ha of forest land in Bellampally and Karimnagar East (Presently Peddampally) Divisions for construction of 800 KV HVDC Raigarh-Pugular Transmission line in Adilabad and Karimnagar District in favour of Power Grid Corporation of India Limited-reg

Sir,

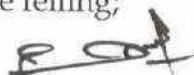
Please refer to the State Government's letter No.813/For.I(1)/2018 dated 23.03.2018 and online application No. FP/TG/TRANS/20850/2016 seeking prior approval of the Central Government for diversion of forest land in accordance with Section '2' of Forest (Conservation) Act, 1980 for the above mentioned project.

As recommended by the Regional Empowered Committee (REC), I am directed to convey the Central Government's in-principle approval (*Stage-I*) under Section '2' of Forest (Conservation) Act, 1980 for diversion of 20.5282 ha of forest land in Bellampally and Karimnagar East (Presently Peddampally) Divisions for construction of 800 KV HVDC Raigarh-Pugular Transmission line in Adilabad and Karimnagar District in favour of Power Grid Corporation of India Limited, subject to the following conditions:-

1. The legal status of forest land shall remain unchanged;
2. The demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered at an interval of 20 meters by the User Agency in consultation with the DFO concerned at the project cost before the Stage II approval;
3. The State Forest Department shall carryout the Compensatory Afforestation (CA) over 42.1288 ha. of degraded forest land identified in Compt No 15 & 16 of Rayadandi RF, Peddapet Beat, Ramagundem Section, Peddapalli Range at the cost of user agency. Minimum of 1000/ plants / ha of diverted area (minimum 21420 plants in total) shall be planted in the identified CA land. In case the required numbers could not be planted therein, the balance shall be planted in

the nearby RF/PF by the State Forest Department at the cost of the user agency and map along DGPS co-ordinates of such forest area shall be furnished along with the compliance report ;

4. The degraded forest land identified for CA and approved CA scheme shall not be changed without prior approval of the Central Government;
5. The State Government shall charge the Net Present Value of the diverted forest land measuring 20.5282 ha from User Agency as per the orders of the Hon'ble Supreme Court dated 28.03.2008 and 09.05.2008 in IA Nos. 826 in 566 with related IA's in Writ Petition (Civil) No.202/1995;
6. Additional amount of Net Present Value (NPV) of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charged by the State Government from the User Agency. User Agency shall furnish an undertaking to this effect;
7. The funds received from the User Agency towards Compensatory Afforestation and Net Present Value under this project etc shall be deposited in the Corporation bank account of the Telangana State CAMPA. **The User Agency shall compulsorily deposit the CA and other levies only by generating challan through the Ministry's website;**
8. The User Agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) under the transmission line, and provide funds for execution of the said scheme to the State Forest Department;
9. The maximum width of right of way for the proposed transmission line on the forest land shall not be more than 69 mtrs;
10. The forest land proposed for diversion shall under no circumstances be transferred / sub let to any other agency, department or person without prior approval of the Central Government;
11. The layout plan of the proposal shall not be changed without the prior approval of the Central Government. User Agency shall furnish an undertaking to this effect;
12. The user agency shall provide fire wood preferably alternate fuel to labourers working at the site to avoid damage/tree felling;



13. Disturbance shall be kept minimal by creating labour camps outside the forest area as far as possible and it will be the responsibility of the user agency to ensure that the labourers & staff engaged in execution of work do not destruct nearby forest flora & fauna;
14. All efforts shall be taken to minimize the felling of trees from the proposed forest area and the State Forest Department shall carry out translocation of the trees wherever feasible at the cost of User Agency;
15. In case the portion of the transmission line to be constructed is located in hilly areas, where adequate clearance is already available, trees shall not be cut;
16. The User Agency and the State Government shall ensure compliance to Ministry's guidelines F.No 7-25/2012-FC dated 5th May, 2014 and provisions of the all Acts, Rules, Regulation and Guidelines of the Ministry, for the time being in force, as applicable to the transmission line projects;
17. The total forest area utilized for the project shall not exceed **20.5282 ha** and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal. User Agency shall furnish an undertaking to this effect;
18. The State Government shall comply with the instructions issued by the REC and conveyed vide this office letters dated 02.02.2018 & 09.03.2018 with regard to implementation of compensatory afforestation and uploading of proposal details including general approval in the Ministry's web portal;
19. The Progress of the Compensatory Afforestation as mentioned by the DFO, Bellampally Division in Sl No 12 (v) (a) & (b) of part II i.e 9.3 ha of forest land and 150.946 ha of non forest land and DFO, Peddamplaly Division in Sl No 12 (v) (a) of part II i.e 95.44 ha of forest land shall be monitored by the Circle Head and a copy of such monitoring report shall be forwarded to the Regional Office;
20. Any other conditions that the Central Government or Addl. PCCF(Central) of Regional Office, Chennai may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied by the user agency;
21. The user agency shall submit the annual self compliance report in respect of the above conditions to the State Govt. and to the Regional Office, regularly;
22. In the event of failure to comply with any of the above conditions the user agency is liable for penal action as decided by the Additional PCCF (Central), Regional Office, Chennai.



After receipt of the compliance report on above mentioned conditions, the proposal will be considered for final approval. This in-principle approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non compliance of the above conditions, this in-principle approval shall automatically stand revoked after 5 years.

Yours faithfully,

(Dr. K. Ganesh Kumar)

Deputy Conservator of Forests (Central)

Copy to:-

1. The Director General of Forests & Special Secretary to Govt. of India, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003
2. The Principal Chief Conservator of Forests, Forests Department, Govt. of Telangana Aranya Bhavan, Saifabad, Hyderabad, PIN- 500 004.
3. The Additional Principal Chief Conservator of Forests/Nodal Officer (FCA), Office of the Principal Chief Conservator of Forests, Forests Department, Govt. of Telangana, Aranya Bhavan, Saifabad, Hyderabad, PIN- 500 004.
4. The Director, RO(HQ) Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
5. Power grid Corporation of India Ltd, 6-6-8/32/E, 4th Floor, Kavadiguda Main Road, Hyderabad, Telangana-500080.
6. Guard file.


(Dr.K.Ganesh Kumar)

Deputy Conservator of Forests (Central)



सत्यमेव जयते

भारत सरकार

GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

Regional Office (South Eastern Zone),

1st & 2nd floor, HEPC Building, No.34, Cathedral Garden Road,

Nungambakkam, Chennai - 600034, Tel. 044-28222041,

e-mail: ro.moefccc@gov.in / roefccc@gmail.com



F.No. 4-TNB022/2018-CHN/0865
Date 07th June, 2018

To

The Principal Secretary to the Government of Tamil Nadu,
Environment & Forests Department,
Secretariat, Fort St. George, Chennai - 600 009.

Subject: Diversion of 9.12 ha of forest land in Dharmapuri (6.36 ha) and Vellore (2.76 ha) Forest Divisions for construction of 800 KV HVDC transmission line from Raigarh to Pugalur in favour of Power Grid Corporation of India Ltd, Bengaluru-reg

Sir,

Please refer to the State Government's letter No.9774/FR.10/2018-1 dated 21.05.2018 and online application No. FP/TN/TRANS/25759/2017 seeking prior approval of the Central Government for diversion of forest land in accordance with Section '2' of Forest (Conservation) Act, 1980 for the above mentioned project.

As recommended by the Regional Empowered Committee (REC), I am directed to convey the Central Government's in-principle approval (*Stage-I*) under Section '2' of Forest (Conservation) Act, 1980 for diversion of 9.12 ha of forest land in Dharmapuri (6.36 ha) and Vellore (2.76 ha) Forest Divisions for construction of 800 KV HVDC transmission line from Raigarh to Pugalur in favour of Power Grid Corporation of India Ltd, Bengaluru for a period of 35 years, subject to the following conditions:-

1. The legal status of forest land shall remain unchanged;
2. The demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered at an interval of 20 meters by the User Agency in consultation with the DFO concerned at the project cost before the Stage II approval;
3. The State Forest Department shall carryout Compensatory Afforestation (CA) over 18.24 ha of degraded forest area i.e. **12.75 ha** in Kalappambadi RF in Dharmapuri District and **5.52 ha** in Veerichettipalli Beat & RF in Gudiyathem Range of Vellore Forest Division at the cost of the User Agency. Minimum of 1000 plants / ha of diverted area shall be planted in the identified CA land. In case, the required numbers could not be planted therein, the balance shall be

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Date: 07/06/18 Pst

planted in the nearby RF/PF by the State Forest Department at the cost of the user agency and map along with DGPS co-ordinates of such forest area shall be furnished along with the compliance report;

4. The degraded forest land identified for CA and the approved CA scheme shall not be changed without prior approval of the Central Government and the State Forest Department shall ensure that the amount realized from the user agency towards CA should not be left unspent as recommended by the REC;
5. The State Government shall charge the Net Present Value of the diverted forest land measuring **9.12 ha** from User Agency as per the orders of the Hon'ble Supreme Court dated 28.03.2008 and 09.05.2008 in IA Nos. 826 in 566 with related IA's in Writ Petition (Civil) No.202/1995;
6. Additional amount of Net Present Value (NPV) of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charged by the State Government from the User Agency. User Agency shall furnish an undertaking to this effect;
7. The funds received from the User Agency towards Compensatory Afforestation and Net Present Value under this project etc shall be deposited in the Corporation bank account of the Tamil Nadu State CAMPA. **The User Agency shall compulsorily deposit the CA and other levies only by generating challan through the Ministry's website;**
8. The User Agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) under the transmission line, and provide funds for execution of the said scheme to the State Forest Department;
9. The maximum width of right of way for the proposed transmission line on the forest land shall not be more than 69 mtrs;
10. The forest land proposed for diversion shall under no circumstances be transferred / sublet to any other agency, department or person without prior approval of the Central Government;
11. The layout plan of the proposal shall not be changed without the prior approval of the Central Government. User Agency shall furnish an undertaking to this effect;
12. The user agency shall provide fire wood preferably alternate fuel to labourers working at the site to avoid damage/tree felling;

13. Disturbance shall be kept minimal by creating labour camps outside the forest area as far as possible and it will be the responsibility of the user agency to ensure that the labourers & staff engaged in execution of work do not destruct nearby forest flora & fauna;
14. The State Government / User agency shall obtain necessary permission from the Hon'ble Supreme Court of India for felling of trees of spontaneous growth falling in both Dharmapuri and Vellore Divisions and submit the same for issuing of final approval;
15. The RoFR certificate for the area falling in Vellore Division (2.76 ha) in Paeradharami RF shall be obtained by the User Agency before final approval in consultation with District Authorities, if required;
16. The enumerated trees on the 69 meter width strip (right of way) would have to be felled but after stringing work is completed, natural regeneration shall be allowed to come up. Felling / pollarding / pruning of trees shall be done with the permission of the local forest officer wherever necessary for the maintenance of the transmission lines;
17. During construction of transmission line, pollarding / pruning of trees located outside the above width of the strip, whose branches / parts infringe with conductor stringing , shall be carried out to the extent necessary, as may be decided by the local forest officer;
18. All efforts shall be taken to minimize the felling of trees and the State Forest Department shall carry out translocation of the trees wherever feasible at the cost of User Agency;
19. The User Agency and the State Government shall ensure compliance to Ministry's guidelines F.No 7-25/2012-FC dated 5th May, 2014 and provisions of all Acts, Rules, Regulation and Guidelines of the Ministry, for the time being in force, as applicable to the transmission line projects;
20. The total forest area utilized for the project shall not exceed **9.12 ha** and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal. User Agency shall furnish an undertaking to this effect;
21. The Progress of the Compensatory Afforestation under the jurisdiction of Dharmapuri & Vellore Forest Divisions shall be monitored by the respective Circle Head and a copy of such monitoring report shall be forwarded to the Regional Office;

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22. Any other conditions that the Central Government or Addl. PCCF(Central) of Regional Office, Chennai may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied by the user agency;

23. In the event of failure to comply with any of the above conditions the user agency is liable for penal action as decided by the Additional PCCF (Central), Regional Office, Chennai.

After receipt of the compliance report on above mentioned conditions, the proposal will be considered for final approval. This in-principle approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non compliance of the above conditions, this in-principle approval shall automatically stand revoked after 5 years.

Yours faithfully,


(D.Sathiyam)

Conservator of Forests (Central)

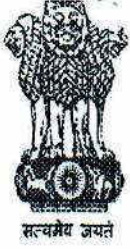
Copy to:-

1. The Director General of Forests & Special Secretary to Govt. of India, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
2. The Principal Chief Conservator of Forests, Govt. of Tamil Nadu, Forest Department, No.1, Jeenis Road, Panagal Building, Saidapet, Chennai - 600 015.
3. The Additional Principal Chief Conservator of Forests/Nodal Officer (FCA), Office of the Principal Chief Conservator of Forests, Govt. of Tamil Nadu, Forest Department, No.1, Jeenis Road, Panagal Building, Saidapet, Chennai - 600 015
4. The Director, RO(HQ) Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
5. Power Grid Corporation of India Limited, SRTS-II, RHQ, Singanayakanahalli, Yelahanka, Bengaluru, Karnataka-560064.
6. Guard file.


(D.Sathiyam)

Conservator of Forests (Central)





Government of India
Ministry of Environment, Forest & Climate Change
North Eastern Regional Office
Law-U-Sib Lumbatngen
Near MTC Workshop, Shillong-793021
Tel(0364)-253-7609,7340/7395/7278.
Fax No(0364)2536041/2536983.
Email:- ro.nez.shil@gmail.com & moefro.shillong@gov.in

भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम टी सी के पास, शिलांग - ७९३०२१
टेली(0364) 253-7609,7340/7395/7278
फैक्स (0364)-2536041/2536983
ईमेल: ro.nez.shil@gmail.com/moefro.shillong@gov.in

No. 3-AS C 023/2017-SHI 2660-61

16th October, 2018

सेवा में,

सचिव/Secretary,
पर्यावरण और वन विभाग/ Environment & Forest Department,
असम सरकार/ Government of Assam,
दिसपुर, गुवाहाटी-781006. / Dispur, Guwahati-781006.

Sub:- Proposal for diversion of 208.807 ha of forest land for construction of 400 KV D/C (Quad) from Jigmelling to Alipurduar Transmission Line by Power Grid Corporation of India Ltd.

Sir,

This has got reference to the State Govt Assam letter No. FRS.59/2017/187 dated 12.05.2017, No. FG.27/Nodal/Proposal/Power grid dated 06.10.2018 and Ministry of Environment, Forest & Climate Change (Wildlife Division), New Delhi letter No. F.No. 6-111/2018WL dated 27.09.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal of the State Government of Assam by the Regional Empowered Committee in its meeting held on 10.08.2018 and its recommendation and on the basis of the recommendation of the Standing Committee of National Board for Wildlife, I am directed to inform that the Central Government hereby conveys its **"In Principle Approval"** for diversion of 208.807 ha of forest land for construction of 400 KV D/C (Quad) from Jigmelling to Alipurduar Transmission Line by Power Grid Corporation of India Ltd. subject to the following conditions:

- (i) The User Agency shall transfer the cost of compensatory afforestation over double the degraded forest land of 419.5 ha in Kokrajhar district { i.e. 141 ha in Chirang RF, Haltugaon Division, 278.5 ha (i.e. 71ha in Phulkumari RF , 45 ha in Bhelakura RF , 154 ha in Mahamaya RF and 8.5ha in Guma RF) in Parbatjhor Division} to the Adhoc CAMPA through e-payment and inform this office through the State Forest Department.
- (ii) The State Govt shall charge the Net Present Value of the forest land diverted under this proposal from the User Agency as per the Judgment of the Hon'ble

Supreme Court of India dated 28.03.2008 & 09.05.2008 in IA No.566 in WP (C) No.202/1995 and as per the guideline issued by this Ministry vide letter No. 5-3/2001-FC dated 05.02.2009 in this regard.

- (iii) All the above funds received from the User Agency under the project shall be transferred to the Ad-hoc CAMPA Fund in New SB account No. 520101263743434 of Corporation Bank, CGO Complex, Phase-I, Lodhi Road, new Delhi-110003.
- (iv) The User Agency shall bear and deposit the amount of the cost of demarcation of the land proposed for diversion directly to the concerned Divisional Forest Officer. The concerned Divisional Forest Officer shall demarcate the land proposed for diversion on the ground by erecting at least 4' high cement-concrete pillars duly numbered, forward and backward bearing and distance from pillar to pillar written on the pillars and DGPS co-ordinates to be inscribed on the pillars. The competent authority shall verify and issue a certificate to this effect. Photographs showing permanent boundary pillars with GPS co-ordinates to be submitted.
- (v) The charges for felling, logging and transportation of project affected trees should be collected from the User Agency at the rates approved by the State Govt and deposited with the DFO concerned for utilization immediately following the diversion of forest land.
- (vi) The certificates for the payment in respect to Sl. No. (iv) and (v) shall be furnished to this office by the user agency.
- (vii) The user agency shall provide the funds for execution for creation and maintenance of plantation of dwarf species (preferably medicinal plants) in right of way under the transmission line as per the prepared detailed scheme by the State Forest Department.
- (viii) The suggestive measures for the portion of the proposed area and two patches of compensatory afforestation area falling under elephant grid shall be adopted as per the Ministry's letter F.No. 7-25/2012-FC dated 19.11.2014 as recommended by the Chief Wildlife Warden, Govt of Assam.
- (ix) The User Agency shall obtain Environment Clearance as per the project provisions of the Environment (Protection) Act, 1986, if required under the said Act.
- (x) No labour camp shall be established on the forest land.
- (xi) The felling of trees on the forest land being diverted shall be reduced to the bare minimum and the trees should be felled under strict supervision of State Forest Department Forest.
- (xii) Sufficient quantity of firewood, preferably the alternate fuel, shall be provided by the user agency to the labourers after purchasing the same from the State Forest Department or the Forest development Corporation or any other legal source of alternate fuel.

- (xiii) The forest land shall not be used for any purpose other than that specified in the proposal and under no circumstances be transferred to any other agency, department or person.
- (xiv) The lay out plan of the proposal shall not be changed without the prior approval of the Central Government.
- (xv) The User Agency will have to obtain the Forest (Conservation) Act, 1980 clearance for stone, river sand, river boulders in forest land, if necessary.
- (xvi) The User agency will provide a vehicle for mobility of the officers of the State Govt of Assam for periodic monitoring of the projects already existing and those which are coming up in the State.
- (xvii) As per Ministry's letter No. 11-30/96-FC(Pt) dt. 14.9.2001, if the compliance of stipulated conditions is awaited from the State Govt for more than 5 (five) years, the in-principle approval would summarily be revoked considering that the user agency is no longer interested in the project.
- (xviii) All other clearance/NOCs under different applicable rules/regulations /local laws and under Forest Dwellers (Recognition of Forest Rights)Act, 2006 as required vide MoEF, New Delhi guideline No.11-9/1998-FC(pt) dated 03.08.2009 shall be complied with.

State Govt shall adhere to the conditions stipulated by the Standing Committee of National Board for Wildlife in its 50th meeting held on 07.09.2018 in addition to the condition stipulated by CWLW and NTCA as communicated by Gol's letter No. F.N. 6-111/2018WL dated 27.09.2018 which are reproduce as follows:-

- (xix) Tower shall be fenced with elephant proof fence maintained properly.
- (xx) The conductors shall be sufficiently high to avoid chances of any accident due to sagging of conductors and such guidelines in this regard.
- (xxi) The user agency shall maintain and monitor the line passing through the tiger reserve area regularly jointly with the Forest Department and incur such expenditures as and when required.
- (xxii) Necessary retrofitting measures as and when required in the interest of wild animal movement and protection shall be done by the user agency in future.
- (xxiii) The user agency shall provide sufficient funds to the Wildlife Department as per the guidelines from NBWL.
- (xxiv) Since the proposed line is a high Voltage Transmission line, it is recommended that the stretch from Tower No. 4 to 6 having dense forest should be fenced around to prevent wild elephants from coming in contact with Towers. In the above stretch, the conductors should be erected at sufficient height to avoid chances of any accident due to sagging. The Power Grid Corporation shall maintain the line after commissioning to avoid any accident to specially the wild elephants moving through the areas.
- (xxv) Insulated cables should be used in the stretch of proposed transmission line passing through the forest and important wildlife areas across its length. All power lines within 5 km of forest and scrub patches and important wildlife area across its entire length will be marked with bird diverters (with solar powered night flashers) spaced at 10 m interval.

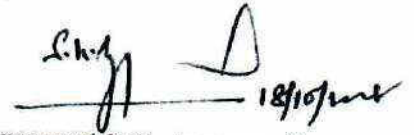
- (xxvi) In area without the insulated cables, Power Grid shall maintain > 1.5 m spacing (larger than wrist-to-wrist or head-to-foot distance of a bird) between energized components grounded hardware. In compliance with MoEFCC's guidelines no clearance of vegetation shall be allowed for open area with sparse vegetation (such as scrublands, grasslands, wetlands, etc), A 5.8 m vertical clearance areas of the transmission and 1.2 m horizontal clearance from the vegetation could be permitted in other areas of the transmission line. These dimensions area based on clearance requirements for power lines under Rules 77, 79 and 80 read with Rules 82 A(3) in the Indian electricity Rules 1956 (as amended up to 20 November 2000) and local forest officials should monitor strict implementation of this on ground.
- (xxvii) The width of the right of way for transmission line on forest land should not be over 35 m. The alignment of the Power Line shall be made such that minimum numbers of trees are felled. Any felling/pollarding/pruning of trees for allowing electricity clearance/maintenance will be done with the permission of the local DFO. Only those trees that are of sufficient height to compromise the requirements of minimal vertical and horizontal clearance from the conductor wires at maximum sag point should be lopped.
- (xxviii) The user agency should adhere to the guidelines issued by Hon'ble National Green tribunal in its judgements in Janajagarthi Samiti verses Union of India and Others (Appeal No.10 of 2012) related to transmission line passing though the forest in Western Ghats. Forest Clearance Division, MoEF&CC in consultation with Central Electricity Authority had also issued guidelines pertaining to transmission lines passing through the forests. The user agency should follow these guidelines while construction of the power line.
- (xxix) Periodic clearing of vegetation along the power line may bring up invasive species. The plantation of native, palatable species should be actively promoted by the user agency in collaboration with the Forest Department below the Power line . This will not only prevent growth of invasive unpalatable species like but also will provide excellent forage for wild ungulates in from of its leaves and fruits. No construction/maintenance work shall be permitted between 6 pm to 7 am. Labour camps should be at least 1 km away from the boundaries of forest land along the entire of the proposed transmission line. In compliance with MoEFCC's guidelines, construction of new approach/access route will require prior approval under Forest Conservation Act, 1980.
- (xxx) The user agency shall deposit 5 % of the total project cost to the Manas Tiger Reserve Management which should utilize this money for eco-restoration, prey augmentation, reducing public dependence on forests and promoting traditional local livelihoods in the landscape. The Chief Wildlife Warden, Assam should constitute a monitoring committee comprising of members from local forest officials, MoEF&CC and NTCA, Regional Office and user agency to oversee the implementation of the project in adherence to the mitigation measures suggested herein and /or by the State Forest Department.
- (xxxi) The project proponent shall finalize the mitigation measures in consultation with state Chief Wildlife Warden on the basis of WII guideline named "Eco-friendly Measures to Mitigate Impact on Linear Infrastructure on Wildlife" prior to start of the work of the project and the mitigation measures so finalized shall be implemented at the project cost.

(xxxii) The annual compliance report on the stipulated conditions of the NBWL shall be submitted by the user agency to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State CWCL to Regional Office, Shillong.

After receipt of the compliance report from the State Government on fulfillment of the conditions mentioned above, final approval will be issued in this regard. Formal transfer of forest land shall not be effected by the State Govt till final approval orders approving the diversion of forest land are issued by the Central Government.

This has the approval of Additional Principal Chief Conservator of Forests (Central).

भवदीय,



(सुनील कुमार अग्रवाल/ S.K. Aggarwal)

अतिरिक्त प्रधान मुख्य वन संरक्षक(केंद्रीय)/

Addl. Principal Chief Conservator of Forests(C)

Copy to:

प्रधान मुख्य वन संरक्षक/ Principal Chief Conservator of Forests & HoFF, असम सरकार/ Govt of Assam, पर्यावरण और वन विभाग/ Environment and Forest Department, अर्न्या भवन / Aranya Bhawan, रोप कोवर ज्योति प्रसाद अग्रवाल पथ/ Rop Konwar Jyoti Prasad Agarwal Path, श्रीमंत शंकरदेव कालखेत्र के पास/ Near Srimanta Sankardev Kalakhetra, पंजाबारी/ Panjabari, गुवाहाटी / Guwahati-781037.

अतिरिक्त प्रधान मुख्य वन संरक्षक(केंद्रीय)/
Addl. Principal Chief Conservator of Forests(C)

०/८



Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

6th Floor, Vayu Wing
Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi 110 003
Date: 26th September 2018

F.No.6-111/2018 WL

To
All Members
Standing Committee of NBWL

Sub: Minutes of 50th Meeting of the Standing Committee of National Board for Wildlife- reg.

Sir / Madam,

Kindly find enclosed copy of the Minutes of 50th Meeting of the Standing Committee of National Board for Wildlife held on 7th September 2018 through Video Conference under the chairmanship of Hon'ble Union Minister of Environment, Forest and Climate Change.

Yours faithfully,

(Dr. Pasupala Ravi)
Scientist C

E-mail: ddwlmeff@gmail.com

Encl: As above

Distribution

- (1) Secretary, MoEF&CC
- (2) DGF&SS, MoEF&CC
- (3) Member Secretary, NTCA
- (4) ADGF(FC), MoEF&CC
- (5) ADGF(WL), MoEF&CC
- (6) Director, WII, Dehradun
- (7) Director, GEER Foundation, Gandhinagar, Gujarat
- (8) Prof. R. Sukumar, Member, NBWL
- (9) Dr. H.S. Singh, Member, NBWL
- (10) Pr. Secretary (Dept. of Envi., Forest, Science & Tech.), Govt. of Andhra Pradesh

Copy to

- (1) PS to Hon'ble MoEF&CC
- (2) PPS to DGF&SS, MoEF&CC
- (3) PPS to Addl.DGF(WL), PPS to IGF(WL)

50.3.3 AGENDA ITEMS OF ASSAM

50.3.3.1 **Proposal for diversion of 208.807 ha of forestland for construction of 400 KV (Quad) Jigmelling – Alipurduar transmission line**

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal is for the diversion of 208.807 ha of forestland from Manas Tiger Reserve for the erection of 400 KV transmission line from Jigmelling to Alipurduar. He added that the State Chief Wildlife Warden has recommended the proposal with the following conditions:

- (1) Towers shall be fenced with elephant proof fence maintained properly
- (2) The conductors shall be sufficiently high to avoid chances of any accident due to sagging of conductors and such guidelines in this regard.
- (3) The user agency shall maintain and monitor the line passing through the tiger reserve area regularly jointly with the Forest Department and incur such expenditures as and when required.
- (4) Necessary retrofitting measures as and when required in the interest of wild animal movement and protection shall be done by the user agency in future.
- (5) The user agency shall provide sufficient funds to the Wildlife Department as per the guidelines from NBWL.

The State Board for Wildlife has recommended the proposal in its 10th meeting held on 22/02/ 2018.

The NTCA recommended the proposal with following conditions:

1. Since the proposed line is a High Voltage Transmission line, it is recommended that the stretch from Tower No. 4 to 6 having dense forest should be fenced around to prevent wild elephants from coming in contact with Towers. In the above stretch, the conductors should be erected at sufficient height to avoid chances of any accident due to sagging. The Power Grid Corporation shall maintain the line after commissioning to avoid any accident to specially the wild elephants moving through the areas.
2. Insulated cables should be used in the stretch of proposed transmission line passing through the forest and important wildlife areas across its entire length. All power lines within 5 km of forest and scrub patches and important wildlife areas across its entire length will be marked with bird diverters (with solar powered night flashers) spaced at 10 m intervals.
3. In areas without insulated cable, Power Grid shall maintain > 1.5m spacing (larger than wrist-to-wrist or head-to- foot distance of a bird) between energized components and grounded hardware. In compliance with MOEFCC,s guidelines, no clearance of vegetation shall be allowed for open areas

with sparse vegetation (such as scrublands, grasslands, wetlands, wetlands etc.), A 5.8 m vertical clearance areas of the transmission and 1.2 m horizontal clearance from the vegetation could be permitted in other areas of the transmission line. These dimensions are based on clearance requirements for power lines under Rules 77,79, and 80 read with Rule 82 A (3) in the Indian electricity Rules 1956 (as amended up to 20 November 2000) and local forest officials should monitor strict implementation of this on ground.

4. The width of the right of way for the transmission line on forest land should not be over 35 m. The alignment of the Power line should be made such that minimum numbers of trees are felled. Any felling/ pollarding/ pruning of trees for allowing electrical clearance/ maintenance will be done with the permission of the local DFO. Only those trees that are of sufficient height to compromise the requirements of minimal vertical and horizontal clearance from the conductor wires at maximum sag point should be lopped.
5. The user agency should adhere to the guidelines issued by Hon'ble National Green tribunal in its judgments in Janajagarithi Samiti versus Union of India and Others (Appeal No.10 of 2012) related to transmission line passing through the forest in Western Ghats. Forest Clearance Division, MoEF&CC in consultation with Central Electricity Authority had also issued guidelines pertaining to transmission lines passing through the forests. The User agency should follow these guidelines while construction the Power line.
6. Periodic clearing of vegetation along the power line may bring up invasive species. The plantation of native, palatable species should be actively promoted by the user agency in collaboration with the Forest Department below the Power line. This will not only prevent growth of invasive unpalatable species like but also will provide excellent forage for wild ungulates in from of its leaves and fruits. No construction/ maintenance work shall be permitted between 6 PM to 7 AM. Labour camps should be at least 1 km away from the boundaries of forest land along the entire of the proposed transmission line. In compliance with MoEFCC's guidelines, construction of new approach/ access route will require prior approval under Forest Conservation Act, 1980.
7. The user agency shall deposit 5% of the total project cost to the Manas Tiger Reserve Management which should utilize this money for eco- restoration, prey augmentation, reducing public dependence on forests and promoting traditional local livelihoods in the landscape. The Chief Wildlife Warden, Assam should constitute a monitoring committee comprising of members from local forest officials, MoEF &CC and NTCA regional office and user agency to oversee the implementation of the project in adherence to the mitigation measures suggested herein and / or by State Forest Department.

After discussions the Standing Committee decided to recommend the proposal along with the conditions and the wildlife mitigation measures stipulated by the State Chief Wildlife Warden and the NTCA.

In addition to the condition imposed by the state CWLW the project proponent shall finalize the mitigation measures in consultation with state CWLW on the basis of WII guidelines named “Eco-friendly Measures to Mitigate Impacts on Linear Infrastructures on Wildlife” prior to start of the work of the project and the mitigation measures so finalized shall be implemented at the project cost .

The annual compliance report on the stipulated conditions should be submitted by the User Agency to the State Chief Wildlife Warden and an annual compliance certificate shall be submitted by the State CWLW to GoI.

50.3.4 AGENDA ITEMS OF DELHI

50.3.4.1 Construction of CBI Residential Complex

The IGF(WL) briefed the Standing Committee on the proposal and stated that the proposal is for the construction of CBI residential complex in the ESZ of Asola Bhatti Wildlife Sanctuary. He added that the State Chief Wildlife Warden has recommended the subject to deposit of 5% of project fund for soil moisture conservation works and improvement of wildlife habitat in the sanctuary in larger interest of wildlife habitat conservation. The area falling under ridge / morphological ridge of 0.50 ha should be brought under dense plantation of indigenous species in supervision of the Department of Forest & wildlife, Government of NCT of Delhi by a professional agency / group to avoid noise and air pollution and maintenance of water table. No soil / Badarpur excavation is permitted in ridge / morphological ridge area contiguous to the project site. Curtains / PVC rolls should be raised to restrict the speed of dust pollution in the surroundings.

The matter was before the Hon’ble Supreme Court and CEC was asked by the court to submit their report. CEC in its report dated 02.08.2018 had recommended for the construction of CBI residential complex. Hon’ble Supreme Court in its order dated 29.08.2018 in writ petition no. 202/1995 has accepted the recommendations of CEC.

After discussions the Standing Committee decided to recommend the proposal along with the conditions stipulated by the State Chief Wildlife Warden.



सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE
Regional Office (Southern Zone),
Kendriya Sadan, IVth Floor, E& F Wings, 17th Main Road,
IInd Block, Koramangala, Bangalore – 560 034,
Tel.No.080-25635905, E.Mail: rosz.bng-mef@nic.in



BY SPEED POST
F.No.4-KLB1153/2018-BANI/968
Dated the 24th September, 2019

To

The Principal Secretary,
Government of Kerala,
Forests & Wildlife (C) Department,
Secretariat, Thiruvananthapuram,
Kerala, PIN – 695 001.

Subject: Diversion of 0.244 ha. (0.098 ha. from Peechi Wildlife Sanctuary & 0.146 ha. from Thrissur Forest Division) of forest land for laying of a ± 320 KV HVDC underground Power Cable from Vadakkancherry to Thrissur in Kerala in the utility corridor of NH 544 (in a concrete duct bank of 2M width) in favour of M/s. Power Grid Corporation of India Ltd.

Sir,

Please refer to the State Government's letter No. C3/22/2018/F&WLD dated 02/04/2018 and PCCF (Wildlife) & Chief Wildlife Warden's letter No. WL4-40979/2017 dated 19/09/2018 on the above mentioned subject seeking prior approval of the Central Government under Section '2' of the Forest (Conservation) Act, 1980. The in-principle (Stage-I) approval to the project was accorded by the Central Government vide letter of even number dated 9th October, 2018. The State Government vide letter No. C3/22/2018/F&WLD dated 22/06/2019 and PCCF's letter No. FC2-27056/2017 dated 04/09/2019 have reported compliance to the conditions stipulated by the Central Government in the in-principle approval.

After careful consideration of the proposal of the State Government, I am directed to convey Central Government's approval (**Stage-II**) under Section '2' of Forest (Conservation) Act, 1980 for diversion of 0.244 ha. (0.098 ha. from Peechi Wildlife Sanctuary & 0.146 ha. from Thrissur Forest Division) of forest land for laying of a ± 320 KV HVDC underground Power Cable from Vadakkancherry to Thrissur in Kerala in the utility corridor of NH 544 (in a concrete duct bank of 2M width) in favour of M/s. Power Grid Corporation of India Ltd, subject to the following conditions:-

1. The legal status of forest land shall remain unchanged.
2. The boundary of the forest land to be diverted shall be suitably demarcated on ground at the project cost as per the directions of concerned Divisional Forest Officer, keeping in view the movement of wildlife.
3. Additional amount of the Net Present Value (NPV) of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charged by the State Government from the user agency. The user agency shall furnish an undertaking to this effect.

Continued...

Sgawp

4. The wildlife mitigation measures as approved by the Chief Wildlife Warden must be strictly implemented.
5. The layout plan of the proposal shall not be changed without prior approval of Central Government.
6. The total forest area utilized for the project shall not exceed 0.244 ha. The Forest land shall be used only for the purpose for which it is diverted.
7. The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Government of India.
8. Any other condition that the Ministry of Environment, Forest and Climate Change may stipulate from time to time in the interest of conservation, protection and development of Forest and Wildlife.
9. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF&CC Guideline F.No.11-42/2017-FC dated 29/01/2018.
10. The State Government and user agency shall comply the provisions of the all Acts, Rules, Regulations, Guidelines, NGT order & Hon'ble Court Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

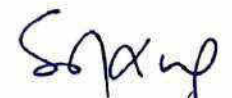
Yours faithfully,

(M.K.Shambhu)

Deputy Inspector General of Forests (Central)

Copy to:-

1. The Director General of Forests & Special Secretary to Govt. of India, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhavan, Agni Wing, Aliganj, Jor Bagh Road, New Delhi – 110 003.
2. The Principal Chief Conservator of Forests, Forests Deptt, Government of Kerala, 'Vanalakshmi', 1st Floor, Forest Headquarters, Vazhuthacaud, Thiruvananthapuram-695 014, Kerala.
3. The Additional Principal Chief Conservator of Forests (Special Afforestation) & Nodal Officer (FCA), Office of the Principal Chief Conservator of Forests, Forests Department, Government of Kerala, 'Vanalakshmi', 1st Floor, Forest Headquarters, Vazhuthacaud, Thiruvananthapuram, PIN- 695 014, Kerala.
4. M/s. Power Grid Corporation of India Ltd, SRTS-II, RHQ, Near RTO Driving Test Track, Singanayakanahalli, Yelhanka Hobli, Bangalore -560 064.
5. Guard file.



(M.K.Shambhu)

Deputy Inspector General of Forests (Central)



Government of India
Ministry of Environment, Forest and Climate Change
(Wildlife Division)

6th Floor, Vayu Wing
Indira Paryavaran Bhawan
Jor Bag Road, Aliganj
New Delhi 110 003

F.No. 6-4/2018 WL

Date: 07.02.2018

To
All Members
Standing Committee of NBWL

Sub: Minutes of 47th Meeting of the Standing Committee of NBWL- reg.

Sir/Madam,

Kindly find enclosed copy of the Minutes of 47th Meeting of the Standing Committee of National Board for Wildlife held on **25th January 2018 at 01.00 PM in Teesta Conference Hall, I Floor, Vayu Block, Indira Paryavaran Bhavan**, New Delhi under the chairmanship of Hon'ble Union Minister of Environment, Forest and Climate Change.

Yours faithfully,

(Dr. Pasupala Ravi)
Scientist C

E-mail: ddwlmef@gmail.com

Encl: As above

Distribution

- (1) Secretary, MoEF&CC
- (2) DGF&SS, MoEF&CC
- (3) Member Secretary, NTCA
- (4) ADGF(FC), MoEF&CC
- (5) ADGF(WL), MoEF&CC
- (6) Director, WII, Dehradun
- (7) Director, GEER Foundation, Gandhinagar, Gujarat
- (8) Prof. R. Sukumar, Member, NBWL
- (9) Dr. H.S. Singh, Member, NBWL
- (10) Pr. Secretary (Dept. of Envi., Forest, Science & Tech.), Govt. of Andhra Pradesh

Copy to

- (1) PS to Hon'ble MoEF&CC
- (2) PPS to DGF&SS, MoEF&CC
- (3) PPS to Addl.DGF(WL), Member Secretary, NBWL
- (4) PPS to IGF(WL)/PS to DIG(WL)/PS to JD(WL)

- [4] The User Agency shall not establish any temporary or permanent labour camp in the Purna Wildlife Sanctuary.
- [5] The User Agency or his contractor shall not create any fire places inside the Purna Wildlife Sanctuary.
- [6] All the material required for the work shall be prepared outside the sanctuary.
- [7] The work in the National Park will be allowed only in the daytime from 8 AM to 6 PM.
- [8] Approval under Forest Conservation Act, 1980 if required shall be obtained separately for use of forestland.
- [9] The User Agency shall deposit NPV for the use of land of Protected Area as per the existing rates.
- [10] The User Agency shall create a speed breaker at a distance of every 500 m.

After discussions, the Standing Committee decided to recommend the proposal along with the conditions and mitigation measures stipulated by the CWLW with the condition that Wildlife Mitigation Plan will be prepared and implemented by the CWLW / State Government at the project cost and standard mitigation measures suggested by the by the WII in its document named “*Eco-friendly Measures to Mitigate Impacts on Linear Infrastructures on Wildlife*” should be adopted by the user agency in consultation with the CWLW.

47.4.1.10 Laying of ±320 kv HVDC underground power cable from Vadakkancherri to Thrissur

The DIGF(WL) briefed the Standing Committee on the proposal and stated that the project involves the diversion of 0.098 ha forestland from the Peechi Vazhani Wildlife Sanctuary for underground laying of power cable of 12" diameter of length of 490 m and width of 2 m from Vadakkancherri to Thrissur. The project would provide electricity to the households and for irrigation purpose in the region. He added that the State CWLW has recommended the proposal with the condition that the project proponent would construct rail fence barrier in the stretch that is falling in the Peechi Vazhani Wildlife Sanctuary.

After discussions, the Standing Committee decided to recommend the proposal along with the conditions and mitigation measures stipulated by the CWLW with the condition that Wildlife Mitigation Plan will be prepared and implemented by the CWLW / State Government at

the project cost and standard mitigation measures should be adopted by the user agency in consultation with the CWLW.

47.4.1.11 Construction of 27.5 km double railway line and its electrification in Katni – Singrauli Section of Sanjay Tiger Reserve

The DIGF(WL) briefed the Standing Committee on the proposal and stated that the project involves the diversion of 27.5 ha of forestland from the Sanjay Tiger Reserve for the construction of railway line from Katni to Singrauli of length of 27.5 km and width of 10 m (km 1203/5 to km 1231/0). This proposed project would improve the railway connectivity in the State. He added that the State CWLW has recommended the proposal with the following conditions:

- [1] The project proponent shall ensure that minimum vehicular movement is done. Any consignment above 2.5 MT would be routed through railway line and not through road of the reserve.
- [2] No damage should be caused to flora and fauna of the said area by the project proponent.
- [3] During construction, the user agency shall not use noisy machinery.
- [4] The entire electric supply shall be insulated and with cable so as to avoid any electric shock. The electric cables shall be overhead.
- [5] The contracting agency of the project property will strictly follow the provisions of the Wildlife (Protection) Act 1972.
- [6] The user agency and / or contractor will not use the area of the sanctuary which is not included in the project for the movement, transpiration and any other purpose of the construction and maintenance of the project.
- [7] The User agency will take utmost care and precaution so that no damage is caused to wildlife.
- [8] 5% of the project cost corresponding to the area falling in the protected area would be paid by the use agency for the purpose of development of Sanjay Tiger Reserve.
- [9] Considering the national interest, permission for construction of only crossing section by laying two additional lines (72 m length + 5.3 m width of either side) shall be allowed on forestland already diverted in favour of railways and handed over to them in 1969.
- [10] No additional forestland should be demanded / diverted for ancillary activities like approach roads, construction of building, etc.