Semi-Annual Social Safeguard Monitoring Report

Loan Number: 3365-IND & 3375- IND

Reporting Period: July – December 2019

Green Energy Corridor and Grid Strengthening Project

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Implementing Agency : POWERGRID

Executing Agency : POWERGRID

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ABBREVIATIONS

ADB	–	Asian Development Bank
CEA	–	Central Electricity Authority
CPTD	–	Compensation Plan for Temporary Damages
CTU	–	Central Transmission Utility
DFO	–	Divisional Forest Officer
Do	–	Ditto
ESPP	–	Environment and Social Policy & Procedures
ESMD	–	Environment & Social Management Department
EMP	–	Environmental Management Plan
GRM	–	Grievances Redressal Mechanism
GRC	–	Grievance Redressal Committee
HVDC	–	High Voltage Direct Current
IEE	–	Initial Environmental Examination
Km/km	–	Kilometers
MoEFCC	–	Ministry of Environment, Forest and Climate Change
NBWL	–	National Board for Wildlife
PAPs	–	Project Affected Persons
POWERGRID	–	Power Grid Corporation of India Ltd.
PMU	–	Project Management Unit
RE	–	Renewable Energy
RoW	–	Right of Way
S/s	–	Substation
SBWL	–	State Board for Wildlife
USD	–	United States Dollar
VSC	–	Voltage Source Converter

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Enclosure:

Executive Summary

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. The Green Energy Corridor and Grid Strengthening Project ("The Project") has been planned to facilitate the transfer of renewable energy as well as increasing interregional connectivity. The project is a subset of India's' green energy corridor' initiative to ensure that transmission system development is commensurate with renewable energy capacity development over time and will also increase the interregional transmission capacity between the southern and western regional systems.

The Asian Development Bank (ADB) is supporting the said project with a total financial assistance of $1000 million ($500 million Sovereign loan under Loan No.-3365-IND & $500 million Non- Sovereign loan under Loan No.-3375-IND). The Loan No.-3365-IND & Loan No.-3375-IND became effective from 22nd March, 2017 & 24th November, 2017 with loan closing date of 30th June, 2021 and 31st August, 2021 respectively.

The Project comprises of number of subprojects involving construction of EHV lines and associated substations of different voltage levels spread across 5 States i.e. Chhattisgarh, Tamil Nadu, Kerala, Rajasthan & Punjab. This includes 1216 km of transmission lines of different voltages (765 kV/400 kV/ 320 kV VSC based HVDC) along with associated 5 no. new substations (±800 kV HVDC terminals station at Raigarh & Pugalur, ±320 kV HVDC terminals station at Pugalur & North Thrissur and 765/400 kV substation at Bikaner).

The Project is being implemented in accordance with POWERGRID's Environmental and Social Policy & Procedures (ESPP) & ADB's Safeguard Policy Statement, 2009. Additionally, various covenants as per the loan agreement and provisions made in project specific safeguard documents (IEE/CPTD/EMP) which were prepared and disclosed as per the framework are also applied to this project. The Project is classified as Category 'B' for Involuntary Resettlement and Category 'C' for Indigenous Peoples as per ADB's SPS. The present 5th Semi-annual Safeguard Monitoring Report for period July – December 2019 is part of the reporting framework agreed under loan covenants.

All efforts have been made to minimize the social impacts which started right from the selection of land for the proposed 6 substations. Out of total 411.36 acres of land required for the proposed 6 substations, 266.46 acres of land is Government land having no Project Affected Persons (PAPs) and was transferred to POWERGRID without creating any adverse social issues. The balance 144.90 acres of private land required for proposed Pugalur HVDC terminals (for both ± 800 kV & ± 320 kV) was purchased on a willing buyer- willing seller basis at negotiated rate without warranting involuntary acquisition. Since no involuntary acquisition of land and no Project Affected Persons (PAPs) are involved, issues related to Rehabilitation & Resettlement/ Rehabilitation Action Plan are not envisaged in the instant project.

As per law of land, no land is acquired for transmission lines but damages are compensated as per provisions of the Electricity Act, 2003 and the Indian Telegraph Act, 1885. POWERGRID is taking all possible efforts to avoid damage to standing crops and trees during construction of transmission lines, However, in case of damages, compensation is being paid to affected land owners/farmers for damage to standing crops/tree after due assessment of revenue authority/competent authority. Accordingly, a total compensation of Rs. 986.62 million paid to 6384 affected farmers/land owners till December, 2019 (Rs. 380.32 million during foundation and Rs. 277.89 million during erection & Rs. 328.41 million during stringing) against damaged towards crops & trees on an area of 1970.26 ha. Additionally, Rs 66.00 million has also been disbursed to affected land owners toward land compensation in Tamil Nadu State.

The project specific mitigation measures are enlisted in the EMP, which is also part of contract documents are being applied appropriately in different stages of the project and regularly monitored for proper implementation. Apart from identified social impacts as mentioned in EMP, no other unanticipated impacts were observed/reported in the reporting period due to implementation of projects.

The two-tier grievance redress mechanism has been addressing/resolving the concerns and grievances of the complainants effectively. All concerns/grievances of affected persons/public including minor ones are also recorded and regularly tracked for early resolution within stipulated timeframe. Further, as part of tree and crop compensation processes, POWERGRID officials also listen to the complaints of affected farmers and takes necessary action to mitigate the concerns of the affected persons. During reporting period of July-December 2019 , total 8 nos. of complaints/court case were received.

POWERGRID endeavors to minimize the social impacts right from the selection of land for the proposed substations by completely avoiding the socially sensitive areas. Besides, all efforts have been made to minimize the social impacts associated with the project. POWERGRID is also undertaking various need based Community Development Works under its Corporate Social Responsibility (CSR) activities in and around its areas of operations for socio-economic and integral development of areas and communities at large. The instant investment for infrastructure development shall have a positive impact on several socio-economic indicators in the nearby community in long run and will ward off any temporary offset faced due to said project.

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.

The Green Energy Corridor and Grid Strengthening Project has been planned to facilitate the transfer of renewable energy, as well as increasing interregional connectivity. This project is a subset of India's 'Green Energy Corridor' initiative to ensure that transmission system development is commensurate with renewable energy capacity development over time. The project will also incorporate increasing interregional transmission capacity between the southern and western regional systems via an 800 kV HVDC link. The Green Energy Corridor and Grid Strengthening Project includes of number of projects consisting of 800 kV HVDC, 765 kV and 400 kV, 320 kV VSC based transmission lines and associated 800 kV HVDC & 320 kV terminals, 765/400kV substation as part of increased inter-regional connectivity between India's western and southern regional power grids. The details of projects are as below;

a. Establishment of +800 kV, 6000 MW HVDC system between the Western (Raigarh) and Southern (Pugalur) Regions;

   Southern Region is facing power deficit mainly due to delay/deferment of anticipated generation projects and non-availability of gas for existing gas projects in Southern Region. Presently, maximum power demand of Southern region is about 39,000 MW and faces a deficit of about 3400 MW inspite of import capacity of about 4950 MW from NEW grid. As per 18th EPS of CEA the expected power demand of Southern region by the end of XII and XIII plan would be about 57,200 MW and 82,200 MW respectively. Power transfer requirement to Southern Region is expected to increase in coming years. Therefore, in view of large deficit and requirement of transmission system to meet future demands, the implementation of HVDC link has been proposed with a capacity of 6000 MW.

b. Establishment of Pugalur - Trichur 2000 MW VSC Based HVDC System;

   Considering the RoW problem in Kerala and dispersal of power beyond Pugalur, establishment of Voltage Source Converter (VSC) based 2000 MW HVDC link between Pugalur and North Trichur (Kerala) has been proposed. The present project will improve import capability of Southern Region.

c. Green Energy Corridor (Part-D);

   About 33 GW Renewable capacity addition has been envisaged in 12th Plan in the eight renewable energy rich States, viz. Rajasthan, Gujarat, Tamil Nadu, Maharashtra, Karnataka, Andhra Pradesh, Himachal Pradesh and J&K through Wind/ Solar & small Hydro generation. Considering above quantum of envisaged renewable capacity, it is expected that some of the Renewable Energy (RE) resource rich States including Rajasthan shall have more RE capacity than the capacity required for fulfilling their Renewable Purchase Obligations (RPO). Further, such RE rich host State may not absorb full RE energy locally particularly during the other than peak hour conditions when renewable generation is at peak. Intermittency/ variability, inherent characteristics of renewable, also necessitates requirement of strong grid interconnections for grid stability.

For dispersal of power, high capacity transmission corridor, as part of inter-State transmission system, connecting major renewable pockets is being proposed right from the Bhuj Pooling Station in Gujarat (Western Region) to Moga in Punjab (Northern Region) via Chittorgarh/ Ajmer/ Bikaner in Rajasthan (NR). For onward dispersal of power beyond Ajmer/ Bikaner, 765 kV High capacity transmission corridor is proposed towards Moga in Punjab, a major load centre in Northern Region, as part of the subject scheme "Green Energy Corridors ISTS - Part-D".

d. 400 kV AC Power Transmission system associated with HVDC terminal stations at Pugalur, Tamil Nadu

The Project involves construction of 400 kV AC Transmission system for transfer of power from Pugalur HVDC Terminal to 400 kV AC network of Tamil Nadu.

The total project cost is about $2.5 billion However, to meet the funding requirement for the proposed project, Asian Development Bank (ADB) has accepted POWERGRID's proposal to finance $500 million as Sovereign loan under Loan No.-3365-IND & additional $500 million as Non-sovereign loan under Loan No.-3375-IND for implementation of Green Energy Corridor and Grid Strengthening Project. The funding for the remaining part will be met from POWERGRID's own Internal Resources (IR). The above said was signed on 23rd February, 2017 and became effective from 22nd March, 2017. The loan closing date is 30th June, 2021.

1.1 OVERALL PROJECT DESCRIPTION

Following subprojects are covered under the subject loan:

1. Establishment of +800 kV, 6000 MW HVDC system between the Western (Raigarh) and Southern (Pugalur) Regions;

   a) Establishment of Raigarh ±800kV HVDC Station with 6000MW HVDC terminals.
   b) Establishment of Pugalur ±800kV HVDC Station with 6000MW HVDC terminals.

2. Establishment of Pugalur - Trichur 2000 MW VSC Based HVDC System;

   a) Establishment of VSC based ±320 kV, 2000 MW HVDC link between Pugalur and North Trichur (Kerala)- **Underground Cable portion: 28 km**
   b) ±320 kV, 2000 MW VSC based HVDC terminal at Pugalur.
   c) ±320 kV, 2000 MW VSC based HVDC terminal at North Trichur.

3. Green Energy Corridor (Part-D)

   a) Ajmer (New) – Bikaner (New) 765 kV D/c line – **263 km**
   b) Bikaner (New) – Moga (POWERGRID) 765 kV D/c line – **293 km**
   d) LILO of one circuit of 400 kV Bhadla (RVPN) - Bikaner (RVPN) D/c line at Bikaner (New) – **9 km**
   c) 765/400 kV Substation at Bikaner.

4. 400 kV AC Power Transmission system associated with HVDC terminal stations at Pugalur, Tamil Nadu

   a) Pugalur HVDC Station – Pugalur (Existing) 400 kV (quad) D/c line- **58 km**.
   b) Pugalur HVDC Station – Arasur 400 kV (quad) D/c line - **60 km**
   c) Pugalur HVDC Station – Thiruvalam 400 kV (quad) D/c line - **390 km**
   d) Pugalur HVDC Station – Edayarpalayam 400 kV (quad) D/c line - **57 km**
   e) Edayarpalayam – Udumulpet 400 kV (quad) D/c line - **54 km**

1.2 PROJECT OBJECTIVES

The objective of the project is to increase transmission of renewable energy and inter-regional connectivity leading to increase in overall efficiency and more reliable transmission system capacity in selected regions of India.

1.3 SAFEGUARD CATEGORY

As per the Asian Development Bank's (ADB) safeguard classification of project on the basis of potential impacts, the Green Energy Corridor and Grid Strengthening Project are classified under Involuntary Resettlement & Indigenous Peoples as category 'B' & "C" respectively.

1.4 SOCIAL PERFORMANCE INDICATOR:

The following parameters which are considered as key indicators for this project need to be monitored to evaluate the social performance.

i) Selection of optimum route/substation site having least social impacts and also avoiding socially sensitive areas like human habitations, places of cultural/historical significance;
ii) Taking due care of Project Affected Persons (PAPs) including timely payment of compensation and addressing their grievances, if any;
iii) Compliance to Loan Covenants agreed with ADB;
iv) Compliance to provisions mentioned in Compensation Plan for Temporary Damages (CPTD)/Environment Management Plan (EMP).

1.5 OVERALL PROJECT PROGRESS, AGREED MILESTONES & COMPLETION SCHEDULES

Name of project	Project Details	Progress as of Dec 2019	Completion Schedule
Establishment of +800 kV, 6000 MW HVDC system between the Western (Raigarh) and Southern (Pugalur) Regions	**Substation:** a) Establishment of Raigarh ±800 kV HVDC Station with 6000 MW HVDC terminals. b) Establishment of Pugalur ±800 kV HVDC Station with 6000 MW HVDC terminals	Engineering, Foundation and Civil Works under progress. (18% progress during reporting period of July-Dec 2019 and overall progress is 79%)	May 2020
Establishment of Pugalur - Trichur 2000 MW VSC Based HVDC System	**Transmission Line:** Establishment of VSC based ±320 kV, 2000 MW HVDC link between Pugalur & North Trichur (Kerala) (UG: 28 km) **Substation:** a) ±320 kV, 2000 MW VSC based HVDC terminal at Pugalur. b) ±320 kV, 2000 MW VSC based HVDC terminal at North Trichur.	Engineering & Civil Works under progress. (11% progress during reporting period of July-Dec 2019 and overall progress is is 62%)	September 2020

Green Energy Corridor (Part-D)	**Transmission Line:** a) Ajmer (New)-Bikaner (New) 765 kV D/c b) Bikaner -Moga 765 kV D/c c) LILO of one circuit of 400 kV Bhadla (RVPN) - Bikaner (RVPN) D/c line at Bikaner **Substation:** a) 765/400 kV Substation at Bikaner.	Approx. 99% of Tower foundation, 99% of Erection & 90 % of Stringing completed. During reporting period of July-Dec 2019 approx. 4% erection and 19% stringing work progress has been made. Approx. 99% civil work & 97% equipment erection completed. During reporting period of July-Dec 2019 approx. 3% civil work and 7% equipment erection progress has been made.	February 2020
400 kV AC Power Transmission system associated with HVDC terminal stations at Pugalur, Tamil Nadu	**Transmission Line:** a) Pugalur HVDC Station-Pugalur(Existing)400 kV D/c. b) Pugalur HVDC Station – Arasur 400 kV D/c. c) Pugalur HVDC Station – Thiruvalam 400kV D/c. d) Pugalur HVDC Station-Edayarpalayam 400 kV D/c. e) Edayarpalayam-Udumulpet 400 kV D/c	Approx. 66% of Tower foundation & 54% of Erection & 9% of Stringing completed. During reporting period of July-Dec 2019 33% tower foundation, 29% erection and 8 % stringing work progress has been made.	June 2020

SECTION 2: COMPLIANCE STATUS WITH MAJOR LOAN COVENANTS

POWERGRID has complied with various social safeguards as agreed in the loan covenants. The point wise compliance status is presented in the table below;

Project Specific Covenants	**Reference**	**Status Compliance**
The Borrower shall ensure, or cause to be ensured, that all land and all rights-of-way required for the Project are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Guarantor and the relevant States relating to land acquisition and involuntary resettlement; (b) ESPP; (c) the Involuntary Resettlement Safeguards; and (d) all measures and requirements set forth in the CPTD, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	LA, Sch. para. 15	Complied/Being complied. For details of compliance status please refer section -3.

Project Specific Covenants	Reference	Status of Compliance
Without limiting the application of the Involuntary Resettlement Safeguards or the CPTD, the Borrower shall ensure that no involuntary resettlement takes place in connection with the Project until compensation and other entitlements have been provided to affected people. In the case of temporary damages, the provisions of the CPTD shall be ensured.	LA, Sch. 5, para. 16	Complied/Being complied. For details of compliance status please refer section -3.
In the event irrigation supplies are disrupted and affected farmers experience losses, the Borrower shall ensure that valuation of the losses shall be consistent with the provisions of the CPTD and timely compensation is provided in respect thereof.	LA, Sch. 5, para. 17	Complied/Being complied. For details of compliance status please refer section -3.
The Borrower shall make available necessary budgetary and human resources to fully implement the EMP, the CPTD and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	LA, Sch. 5, para. 18	Complied/Being complied. All such provisions are integral part of approved IEARs and CPTDs and are being implemented.
The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEE, the EMP and the CPTD (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the CPTD and any corrective or preventative actions set forth in a Safeguards Monitoring Report; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	LA, Sch. 5, para. 19	Complied/Being complied. All such provisions have been made part of contract documents/ conditions

The Borrower shall do the following: (a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the CPTD, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;	LA, Sch. 5, para. 20	Such reports are submitted to ADB regularly and disclosed on website after approval. No such issues come across during reporting period July-Dec 2019.
(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP and the CPTD promptly after becoming aware of the breach; and (d) in the event unexpected significant safeguard impacts are identified, promptly engage qualified and experienced external expert or agency under terms of reference intimated to ADB, to verify information produced through the Project monitoring process, and facilitate the carrying out of any verification activities by such external experts.		During reporting period July-Dec 2019 no such breach reported. Will comply if such situation warrants.
The Borrower shall ensure that subsequent to award of Works contract, no Works are commenced by the contractor unless the applicable provisions of the IEE, the EMP and the CPTD, as approved by ADB, have been complied with.	LA, Sch. 5, para. 21	Compliance ensured
In relation to the Project, the Borrower shall cause the contractors to undertake detailed survey of the affected persons during transmission line alignment finalization. The Borrower shall prepare the CPTD which meets ADB's requirements, and update it based upon the detailed design information during the survey carried out by Works contractors. The Borrower shall submit to ADB for approval the revised CPTD progressively during the implementation of the related Works.	LA, Sch. 5, para. 22	Complied/Being complied.
Any changes to the location, land alignment, or environment impacts on account of detailed designs of the Project shall be subject to prior approval by ADB before commencement of Works for transmission lines or substations under the Project.	LA, Sch. 5, para. 23	No such deviations reported so far.
In the event of any significant or related impacts on indigenous peoples, the Borrower shall prepare and implement an indigenous peoples plan in accordance with the applicable laws and regulations of the Guarantor and the relevant States, and the Indigenous Peoples Safeguards.	LA, Sch. 5, para. 24	No impacts on IPs envisaged

SECTION: 3 STATUS OF LAND & SOCIAL COMPLIANCES

Details of land required for proposed substations, land status and social compliance is given below in **Table 1**.

Table 1: Details of Substation Land

Sl	Name of Substation	Total Area (acre) /Land Type	Land Status	Total Land Compensation (In Rs. Million)	Social Compliance
1	±800 kV HVDC terminals at Raigarh.	110/ Govt.	Land already available in POWERGRID existing Raigarh (Kotra) substation	Not Applicable	Since the land is already available in its existing Raigarh (Kotra) substation, no fresh land is secured by POWERGRID. Hence, there is no need of Rehabilitation Action Plan (RAP).
2	±800 kV HVDC terminals at Pugalur	149.37 (144.9 Pvt. + 4.47 Govt.)	Land possession taken on 09.09.15	189.53	**Private land:** Since, subject land was purchased through willing buyer-willing seller basis on negotiated rate, no involuntary acquisition is involved. Consequently, there are no Project Affected Persons (PAPs) and also R&R issues, hence, there is no need of Rehabilitation Action Plan (RAP). **Govt land:** No R&R issues involved hence, there is no need of Rehabilitation Action Plan (RAP).
3	±320 kV HVDC terminal at Pugalur.				
4	±320 kV, HVDC terminal at North Trichur	31.44/Govt.	Land transferred to POWERGRID on 31.03.16 through MoU with Kerala Agricultural University	349.10	No R&R issues involved hence, there is no need of Rehabilitation Action Plan (RAP).
5	Transition Station at Vadakacheri	0.55/ Govt.	Land given to POWERGRID on long term lease on 26.03.17 by Kerala State Electricity Board	1.66	No R&R issues involved hence, there is no need of Rehabilitation Action Plan (RAP).
6	765/400kV Substation at Bikaner	120/ Govt.	Land transferred on 22.06.16 to POWERGRID	9.12	No R&R issues involved hence, there is no need of Rehabilitation Action Plan (RAP).

A summary of the environmental & social mitigation measures, their monitoring vis-à-vis compliance by POWRGRID is given in **Table- E1**.

a. Compensation for Tree/crop damages:

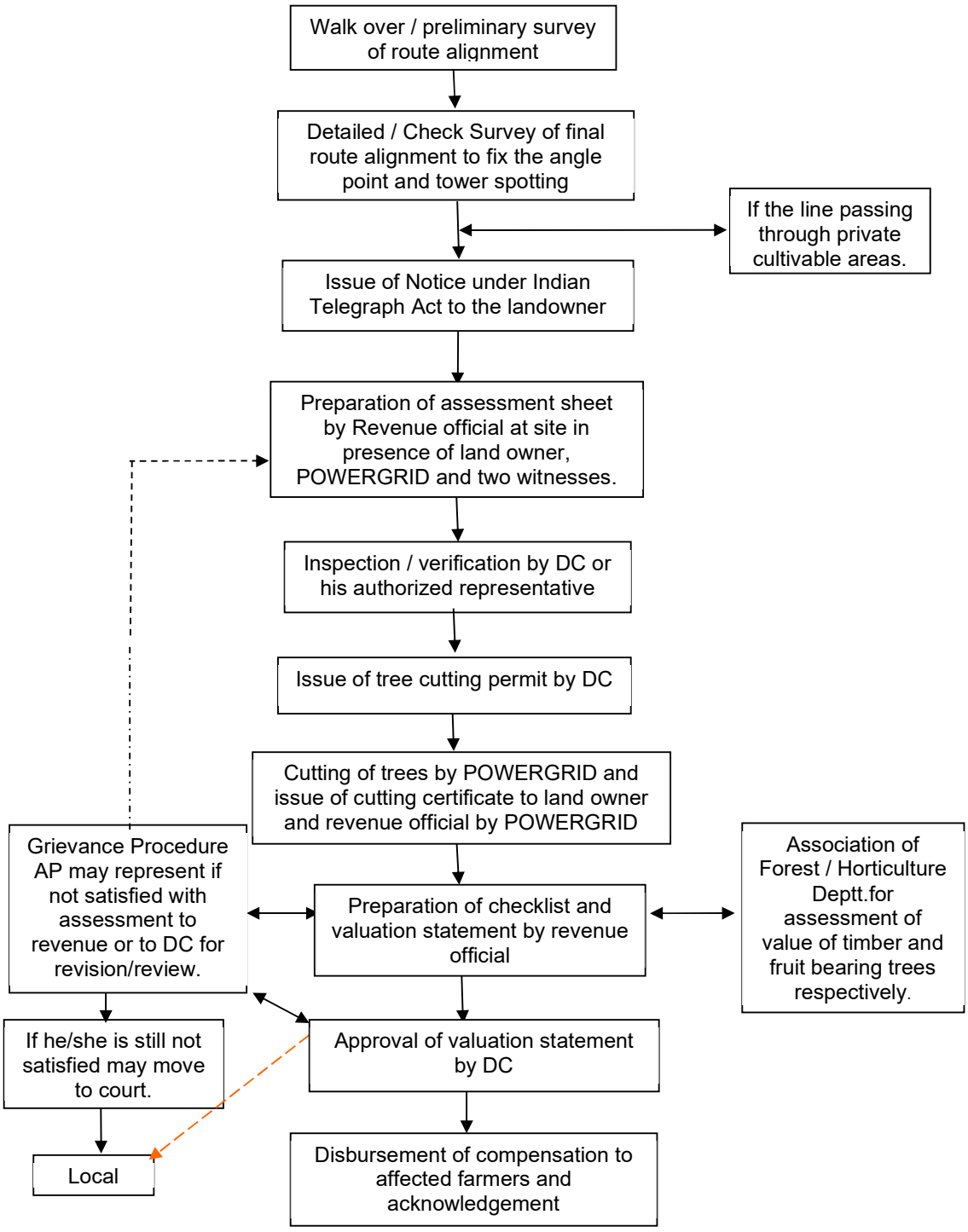
POWERGRID follows the principle of Avoidance, Minimization and Mitigation in the construction of line in agricultural field having crop due to inherent flexibility in phasing the construction activity and tries to defer construction in cropped area to facilitate crop harvesting. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. 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. are paid to Affected Persons (APs) for the area of damage to mitigate the impacts probably 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 till June 2019 is given in **Table- 2**

Table 2: Details of Crop & Tree compensation

S. No.	Name of the Line	Nos. of Person issued notice	Affected Land Area (Ha.)	Nos. of Tree	Compensation Paid for crop damages(Rs. million)			Compensation Paid for Tree damages(Rs. million)		
					Fdn.	Erection	Stringing	Fdn.	Erection	Strg.
A	**Establishment of +800 kV, 6000 MW HVDC Raigarh- Pugalur**									
	Line is not under the scope of funding hence, compensation details are not included									
B	**Establishment of Pugalur - Trichur 2000 MW VSC Based HVDC System**									
	Only Underground portion is covered under scope of funding. However, as the line being laid underground along the shoulder area of existing road with a 2 meter wide no damages to tree/crop is anticipated.									
C	**Green Energy Corridor (Part-D)**									
1	Ajmer- Bikaner 765 kV D/C	2430	1015.97	476	13.61	21.28	33.16	0.05	0.06	0.25
2	Bikaner- Moga 765 kV D/c	1489	436.68	Nil	11.12	12.10	4.69	Nil	Nil	Nil
3	LILO of 400kV Bhadla- Bikaner	52	18.13	Nil	0.51	0.26	0.85	Nil	Nil	Nil
	Sub Total(C)	**3971**	**1470.78**	**476**	**25.24**	**33.64**	**38.7**	**0.05**	**0.06**	**0.25**
D	**400 kV AC Power Trans. System Associated with HVDC Terminal Station at Pugalur end**									
1	Pugalur-Pugalur 400 kV D/C	261	19.31	Nil	7.64	7.76	2.24	4.57	2.74	10.98
2	Pugalur-Arasur 400 kV D/C	335	67.86	2753	8.92	5.83	1.42	23.97	0.054	22.64
3	Pugalur- Thiruva-lam 400 kV D/C	1605	352.71	1708	169.42	161.14	8.48	3.01	0.026	148.7
4	Pugalur-Edayarp alayam 400kV	82	33.74	3134	1.87	1.29	1.17	7.80	64.54	7.73
5	Edayarpalayam-Udumulpet 400 kV D/C	130	25.86	7172	3.94	0.81	Nil	123.89	Nil	86.10
	Sub Total (D)	**2413**	**499.48**	**14767**	**191.79**	**176.83**	**13.31**	**163.24**	**67.36**	**276.15**
	Grand Total	**6384**	**1970.26**	**15243**	**217.03**	**210.47**	**52.01**	**163.29**	**67.42**	**276.4**

During reporting period of July-December 2019, compensation to the tune of **Rs 788.26 million** has been paid towards crop & tree damages. As such, a sum of **Rs 986.62 million** has been paid till December, 2019 towards tree/crop compensation which is 166 % against the provision of Rs. 592.00 million as per DPR. A sample copy of crop compensation notice along with assessment sheet is enclosed at **Annexure-1.**

Figure 1 : Tree/ Crop Compensation Process



b. 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 their states. Till date, only Govt. of Chattisgarh, Tamil Nadu & Kerala have adopted these guidelines among the states, where the project is being executed, while State of Rajasthan & Punjab is yet to adopt these guidelines. The details of land compensation paid as per the provisions of the said guidelines are given in **Table- 3**. During reporting period of July-December 2019, land compensation to the tune of **Rs 55.87 million** has been paid to affected persons. As such a sum of **Rs 66.00 million** land compensation paid out till December 2019 which is 2.69 % against provision of Rs 2452.00 million as per DPR.

Table -3 : Details of Land Compensation as per MoP Guidelines

S. No.	Name of the Line	Total Compensation paid for area under Tower Base (Rs. million)	Total Compensation paid for area under RoW Corridor (Rs. million)	Rate of Land Compensation (Rs. million)	Remark, if any
A.	**Establishment of +800 kV, 6000 MW HVDC system between the Western (Raigarh) and Southern (Pugalur) Regions**				
	Line is not under the scope of funding hence, compensation details are not included				
B.	**Establishment of Pugalur - Trichur 2000 MW VSC Based HVDC System**				
	Only Underground portion is covered under scope of funding. However, as the line being laid underground along the shoulder area of existing road with a 2 meter wide, POWERGRID has already paid Rs 66.7.million as license fee and Rs.13.2 million towards Bank Guarantee to NHAI. Similarly, Rs. 4.50.million and Rs.0.76 million has also been paid towards land compensation cost to Kerala Agricultural University (KAU) and Kerala State Road Transport Corporation (KSRTC) respectively. ***Total Land Compensation paid- Rs.85.16 million****)*				
C.	**Green Energy Corridor (Part-D)**				
1	Ajmer-Bikaner 765 kV D/c	Not Applicable	Not Applicable	Not Applicable	State of Punjab & Rajasthan have not yet adopted the MoP Guidelines
2	Bikaner- Moga 765 kV D/c				
3	LILO of 400kV Bhadla-Bikaner				
D.	**400 kV AC Power Trans.System Associated with HVDC Terminal Station at Pugalur end**				
1	Pugalur-Pugalur 400kVD/c	0.3	1.0	Rs. 126/sq.m	
2	Pugalur-Arasur 400kV D/C	9.0	40.0	Rs. 131-783/sq.m.	
3	Pugalur- Thiruvalam 400 kV D/C	3.16	1.50	As per DC order	
4	Pugalur-Edayarpalayam 400 kV D/C	3.0	5.0		
5	Edayarpalayam-Udumulpet 400 kV D/C	3.04	Nil		
Total		**18.50**	**47.50**		

TABLE – E1 : ENVIRONMENT MANAGEMENT PLAN

Cl. 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 designed 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 &design	Details of compliance provided in Environment Monitoring Report (EMR)
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 specifications for the equipment	
			Processes, equipment and systems not to use chlorofluorocarbons (CFCs), 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	POWERGRID	Part of tender specifications for the equipment	
					Phase out schedule to be prepared in case still in use – once		Part of equipment and process design	
3	Transmission line design	Exposure to electromagnetic interference	Line design to comply with the limits of electromagnetic interference from power	Electromagnetic field strength for proposed line design	Line design compliance with relevant standards –	POWERGRID	Part of design parameters	

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			lines including those of ICNIRP		once			
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	Details of compliance provided in Environment Monitoring Report.
		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
		Social inequities	Careful route selection to avoid existing settlements and sensitive locations	Tower location and line alignment selection (distance to	Consultation with local authorities and land owners – once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	Route alignment criterion is part of survey contract.

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 & 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[1]	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 Govt land or private land purchased through willing buyer – willing seller basis on negotiated rates. For details of lands & compensation thereof refer **Table- 2**.

[1] No Involuntary acquisition of land (permanent) is involved, hence this clause shall not be applicable.

Cl. 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	Details of compliance provided in environment monitoring report.
			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 &detailed alignment survey and design	
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	

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			Avoidance of established/ identified migration path (Birds & Bats). Provision of flight diverter/ reflectors, bird guard, elevated perches, insulating jumper loops, obstructive perch deterrents, raptor hoods etc[2]., 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	
9	Line through forestland	Deforestation and loss of biodiversity edge effect	Avoid locating lines in forest land by careful site and alignment selection	Tower location and line alignment selection (distance to nearest protected or reserved forest)	Consultation with local authorities-once	POWERGRID	Part of tower siting survey and detailed alignment survey and design	
			Minimise the need by using existing towers, tall towers and RoW, wherever possible		Consultation with local authorities and design engineers- once			
			Measures to avoid invasion of alien species	Intrusion of invasive species	Consultation with local forest authorities-once			
			Obtain statutory clearances from the Government	Statutory approvals from Government	Compliance with regulations – once for each subproject			
10	Lines through farmland	Loss of agricultural production/ change in	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 and design	Complied during survey which is a part of survey contract. However, as per law of land, no land

[2] 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
		cropping pattern	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 & alignment survey /design	is acquired for transmission line tower but all damages are compensated as per provisions of Electricity Act, 2003 and Indian Telegraph Act, 1885.
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	Details of compliance provided in environment monitoring report
12	Interference with drainage patterns/ irrigation channels	Flooding hazards/ loss of agricultural production	Appropriate sitting of towers to avoid channel interference	Tower location and line alignment selection (distance to nearest flood zone)	Consultation with local authorities and design engineers- once	POWERGRID	Part of detailed alignment survey and design	
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 clean up equipment.	Equipment specifications with respect to potential pollutants	Tender document to mention specifications – once	POWERGRID	Part of detailed equipment design /drawings	Details of compliance provided in environment monitoring report.

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			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	
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	
15	Explosions /Fire	Hazards to life	Design of substations to include modern fire fighting equipment Provision of fire fighting equipment to be located close to transformers	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	
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	Details of compliance provided in environment monitoring report
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	POWERGRID (Contractor through contract provisions)	Construction period	Complied/ Being complied. Construction on farm & undertaken mostly during post-harvest period. Wherever, crop & tree

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
					– once per site			loss occurs, compensation is paid to farm owners. Till December 2019, an amount of **Rs 986.62 million** has already been paid to land owners/farmers (for details refer **Table -2**).
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	Details of compliance provided in environment monitoring report.
		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	
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	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	
		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	

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
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	
		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	
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	
22	Site clearance	Vegetation	Marking of vegetation to be removed prior to clearance, and strict control on clearing activities to ensure minimal clearance.	Vegetation marking and clearance control (area in m^2)	Clearance strictly limited to target vegetation – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	
			No use of herbicides and pesticides					

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
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	
		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	
			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	
24	Wood/ vegetation harvesting	Loss of vegetation and deforestation	Construction workers prohibited from harvesting wood in the project area during their employment, (apart from locally employed staff continuing current legal activities)	Illegal wood /vegetation harvesting (area in m^2, number of incidents reported)	Complaints by local people or other evidence of illegal harvesting – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	
25	Surplus earthwork/soil	Runoff to cause water	Soil excavated from tower footings/	Soil disposal locations and	Acceptable soil disposal sites –	POWERGRID	Construction period	

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
		pollution, solid waste disposal	substation foundation disposed of by placement along roadsides, or at nearby house blocks if requested by landowners	volume (m^3)	every 2 weeks	(Contractor through contract provisions)		
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	Details of compliance provided in environment monitoring report.
		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	

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)	Amount of ground disturbance – every 2 weeks	POWERGRID (Contractor through contract provisions)	Construction period	
				Statutory approvals	Statutory approvals for tree clearances- once for each site			
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	
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	
30	Construction	Noise	Construction activities	Timing of	Daytime	POWERGRID	Construction	

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
	schedules	nuisance to neighbouring properties	only undertaken during the day and local communities informed of the construction schedule.	construction (noise emissions, [dB(A)]	construction only – every 2 weeks	(Contractor through contract provisions)	period	
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	
32	Influx of migratory workers	Conflict with local population to share local resources	Using local workers for appropriate asks	Avoidance/ reduction of conflict through enhancement/ augmentation of resource requirements	Observation & supervision–on weekly basis	POWERGRID (Contractor through contract provisions)	Construction period	Complied/Being Complied. Local workforce being used based on skill and no incidents of conflict reported so far.
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	Being complied. No complaints received from local peoples /authorities
			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	Tried to minimise the loss. However, in case of any damage, same is being compensated. An amount of **Rs. 986.62 million** and **Rs. 66.00 million** has been paid towards crops & tree and land diminution value affected farmer/land owners respectively till December' 19 (for details refer **Table -2 & 3**).
34	Uncontrolled erosion/silt runoff	Soil loss, downstream siltation	Need for access tracks minimised, use of existing roads. Limit site clearing to work areas Regeneration of vegetation to stabilise works areas on completion (where applicable) Avoidance of excavation in wet season Water courses protected from siltation through use of bunds and sediment ponds	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	Details of compliance provided is part of environment monitoring report

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. No complaints received so far.
			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			
		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	Compensation provided as per POWERGRID's procedure for tree/crop compensation. An amount of **Rs 986.62 million** paid towards crops & tree compensation till Dec.'19 (for details refer **Table -2**).

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
36	Flooding hazards due to construction impediments of natural drainage	Flooding & 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	Details of compliance provided in environment monitoring report
37	Equipment submerged under flood	Contamina-tion 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	
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	
39	Health and safety	Injury and sickness of workers and members of the public	Safety equipment's (PPEs) for construction workers 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	Contract clauses (18.1.3, 18.3.1.1, 18.3.1.4 etc) (requirements of worker camp, number of incidents and total lost-work days caused by injuries and sickness)	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. Photographs related to Health check-up, use of PPEs, safety training & worker facilities etc. are placed as **Plate- 1**

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
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	Details of compliance provided in environment monitoring report
			Implementation of effective environmental monitoring and reporting system using checklist of all contractual	Respective contract checklists and remedial actions taken thereof.	Submission of duly completed checklists of all contracts for each site - once			
			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	Since, the project is in construction stage, this clause is not applicable at present
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,	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	-do-

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			insulating jumper loops, obstructive perch deterrents, raptor hoods etc., if applicable					
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	-do-
44	Oil spillage	Contamination of land/nearby water bodies	Each transformer has a secure and impervious underlying pit with a storage capacity of at least 20% of the total oil volume of the transformer and the individual pits are connected to a main collection sump of capacity of 220% of largest transformer oil volume, which acts as a Secondary Containment, in case of a leakage. (refer para 8.6 of TS)	Substation bunding (Oil sump) ("as-built" diagrams)	Bunding (Oil sump) capacity and permeability – once	POWERGRID	During operations	-do-
45	SF_6 management	Emission of most potent GHG causing climate change	Reduction of SF6 emission through awareness, replacement of old seals, proper handling & storage by controlled inventory and use,	Leakage and gas density/level	Continuous monitoring	POWERGRID	During Operations	-do-

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			enhance recovery and applying new technologies to reduce leakage					
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	-do-
			Safety awareness raising for staff.	Training/awareness programs and mock drills	Number of programs and percent of staff /workers covered – once each year			
			Preparation of fire emergency action plan and training given to staff on implementing emergency action plan					
			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	-do-
			Security fences around substations	Maintenance of fences	Report on maintenance – every 2 weeks			
			Barriers to prevent climbing on/ dismantling of towers	Maintenance of barriers				

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
			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			
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.	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	POWERGRID	Operation	-do-
			Preparation and training in the use of O&M manuals and standard operating practices					
49	Inadequate periodic environmental monitoring.	Diminished ecological and social values.	Staff to receive training in environmental monitoring of project O & M activities	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	POWERGRID	Operation	-do-
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	-do-

Cl. No.	Project activity / stage	Potential Impact	Proposed mitigation measures	Parameter to be monitored	Measurement & frequency	Institutional responsibility	Implementation schedule	Compliance Status
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	-do-
52	Uncontrolled growth of vegetation	Fire hazard due to growth of tree/shrub /bamboo along RoW	Periodic pruning of vegetation to maintain requisite electrical clearance No use of herbicides/ pesticides	Requisite clearance (meters)	Assessment in consultation with forest authorities- once a year (pre/post monsoon	POWERGRID	Operation	-do-
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 & consultation with affected parties if any - once	POWERGRID	Operation	-do-

SECTION: 4 APPROACH AND METHODOLOGY ENGAGED FOR SOCIAL MONITORING OF THE PROJECT

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

POWERGRID has a separate monitoring department, which carry 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), which is chaired by Director (Projects). CMD also takes periodic review of project implementation.

SECTION: 5 DETAILS OF GRIEVENCE REDRESS COMMITTEE AND COMPLAINT RECEIVED AND ACTION TAKEN

Grievance Redress Mechanism (GRM) is an integral and important mechanism for addressing/resolving the concerns and grievances in a transparent and swift manner. Many minor concerns of peoples are addressed during public consultation process initiated at the beginning of the project. For handling grievance, Grievance Redress Committee (GRC) has been established both at the project/scheme level and at Corporate/HQ level. The site/project level GRCs constituted also include members from POWERGRID, Local Administration, Panchayat Members, Affected Persons representative and reputed persons from the society on nomination basis under the chairmanship of project head. 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. As per information collected from different sites, no major complaints have been registered till date. However, some minor issues brought to the notice were resolved instantly through discussion & deliberation by local project officials.

Additionally, GRM process is in built in the tree & crop compensation process, where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector also provides forum for raising the grievance towards any irregularity/complaint. Apart from this, POWERGRID officials also listen to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful and, if required, POWERGRID takes necessary action to mitigate the concern of the affected.

In the instant project, many concerns/grievances from affected persons/public both of verbal and written nature have been recorded by Site Offices which are also regularly tracked for early resolution. Some of these complaints were minor in nature and were

resolved instantly and amicably by Site Officials after discussion & deliberation with affected person/ in consultation of revenue/district officials. During reporting period of July - December 2019, there are 8 new complaints received. Details of written & verbal complaints including court cases along with their status as of December 2019 are presented below in **Table-4.**

Table 4: Details of Court Cases and Complaints as of December 2019

SN	Name of the line	Location No.	Name of complainants	Date of complaints/ Court case	Main Issue of complaints	Status of complaint
A.	**Court Cases**					
1.	Ajmer – Bikaner 765 kV D/C	87/0	Ms. Sushila Devi	06.01.18	Land Compensation	Matter under consideration of Additional District & Session Court, Bikaner. Hearing could not be held on 30.03.19, 27.08.19 and 11.10.19. Next hearing scheduled on 27.03.20.
2.	Pugalur HVDC– Pugalur (existing 400KV D/C	36/0	Sh. K.S. Natarajan	WP No. 15040 of 2018 filed on 28.06.18 to Madurai Bench of Madras High court	Seeking order of interim injunction restraining POWERGRID installing towers in their lands	Hon'ble Madras High Court issued stay for status quo order on 12.07.18. Counter statement filed by POWERGRID on 06.08.18 to dismiss the stay order. High court vacated stay & disposed the case on 17.09.18.
3.		35/3	Sh. Saminathan			
4.		35/4	Sh.Ramasamy			
5.	Pugalur-Thiruvallam 400KV D/C	142/5	Sh. Periyasamy			
6.		141/2	Sh. K.Mani			
7.		142/1	Sh. K.Krishna Moorthy			
8.		75/1	Sh.Ramalingam Chettiyar	W.P.No. 35500/ 2019	Diversion of Transmission Line	Counter affidavit filed by POWERGRID. Matter yet to be heard by Madras High Court.
9.		86/6-86/7	Sh. G. Anbalagan	W.P.No. 21235 /2019		
10.	400Kv (Quad) Pugalur HVDC – Arasur Line	AP 12/0	Kalaichelvi W/o Kumaresan	W.P. No. 32824/2019		
11.		AP 13/0	Subbaraya Gounder S/o Nachimuthu Gr.	W.P. No. 32473/2019		
	B. Written Complaints					
1.	Pugalur HVDC– Arasur 400KV D/C		Tamil Nadu Farmers Association, Coimbatore through District Collector (DC), Coimbatore.	29.12.17	To stop line construction works/ route diversion	POWERGRID submitted reply on 25.01.18 to District Collector, Coimbatore informing that due to technical reason route diversion is not possible. Issue resolved in coordination with District Collector and work is in progress as per original route.

2.		73/0	Representation from ARC School received through DC, Coimbatore	14.03.18	Route diversion	POWERGRID submitted reply on 24.03.18 informing that due to technical reason route diversion is not possible. Issue resolved in coordination with District Collector and work is in progress as per original route.
3.			From Sh. C. Vengatachalam received through DC, Tirupur	29.07.18	Route diversion to avoid stream	Tahsildar inspected the site and reported to District Collector, Tirupur that Stream is away from alignment.
4.	Pugalur-Thiruvallam 400KV D/C	114/1 - 114/2	Sh. Raju	12.07.2019	Seeking Higher compensation	POWERGRID submitted reply to District Collector, Tiruvannamamalai stating that compensation being paid as per norms and rate as decided by revenue authority norms only.
5.		86/2	Sh. Sampath	08.07.2019		
6.		90/2	Sh. Ganesan	08.07.2019		
7.		91/7	Sh. Ashok Kumar	10.07.2019		
C. Verbal Complaints						
1.	Ajmer – Bikaner 765kV D/c	80/1	Mr. Tola Ram	15.11.17	Basis of assessment of Crop Compensation	Compensation framework explained to Complainant. Matter Resolved through discussion.
2.	Pugalur HVDC–Thiruvallam 400KV D/c	57/1	Sh. S. Kanda samy Gounder	25.05.18	To stop line construction works/ route diversion	Issue resolved in close co-ordination with district authority.
3		56/4	Sh. M. Selvaraj			
4.	Pugalur-Edayarpalayam 400 KV D/C		Land owners of Suryanallur village	28.06.18	Route Diversion	Issue resolved amicably with villagers through meeting/ discussion in coordination with District Collector.

SECTION: 6 CONCLUSION

From the above discussions, it is evident 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. Out of total 411.36 acres of land required for the proposed 6 substations, 266.46 acres of land is Government land having no Project Affected persons (PAPs) and was transferred to POWERGRID without creating any adverse social issues. The balance 144.90 acres of private land required for proposed Pugalur HVDC terminals (for both ± 800 kV & ± 320 kV) was purchased through willing buyer- willing seller basis on negotiated rate without warranting involuntary acquisition.

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. Accordingly, in the instant project till December, 2019 a total of 6384 persons were issued notices for 1970.26 ha. of crop area & tree damage and a total of Rs. 986.62 million (Rs. 380.32 million during foundation and Rs. 277.89 million during erection & Rs. 328.41 million during stringing) compensation has been paid so far (refer **Table-2**). Additionally, Rs 66.00 million has also been disbursed to affected land owners toward land compensation in Tamil Nadu State (refer **Table-3**).

In view of aforesaid, it may be noted that all possible measures have already been implemented to safeguard the interest of PAP. Moreover, in long run the instant investment for infrastructure development shall have a positive impact on several socio-economic indicators in the nearby community and will ward off any temporary offset faced due to said project.

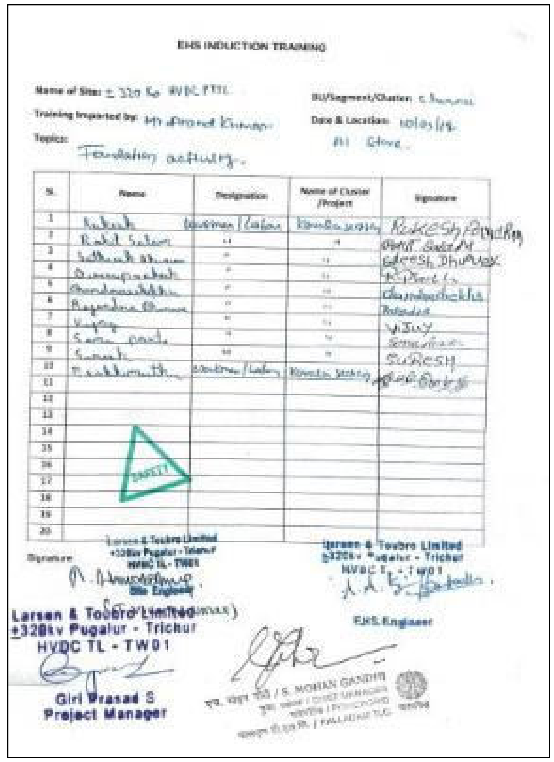
Dr. S.S Singh
Sr. General Manager (ESMD)

Plate 1: Health Check-up/Protection for Workers

Facilities for Construction Worker

Use of PPEs & Safe Working Practices

Safety Awareness/Training



EHS INDUCTION TRAINING

Name of Site: ±320 kV HVDC PTTL BU/Segment/Cluster: Chennai

Training imparted by: Mr Pramod Kumar Date & Location: 10/05/19 At Store

Topics: Foundation activity.

Sl.	Name	Designation	Name of Cluster /Project	Signature
1	Rukesh	Foreman / Labour	[illegible]	RUKESH [illegible]
2	Rohit Salam	"	"	[illegible]
3	[illegible]	"	"	[illegible]
4	[illegible]	"	"	[illegible]
5	[illegible]	"	"	[illegible]
6	[illegible]	"	"	[illegible]
7	Vijay	"	"	VIJAY
8	[illegible]	"	"	[illegible]
9	Suresh	"	"	SURESH
10	[illegible]	Foreman / Labour	[illegible]	[illegible]
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

SAFETY

Signature

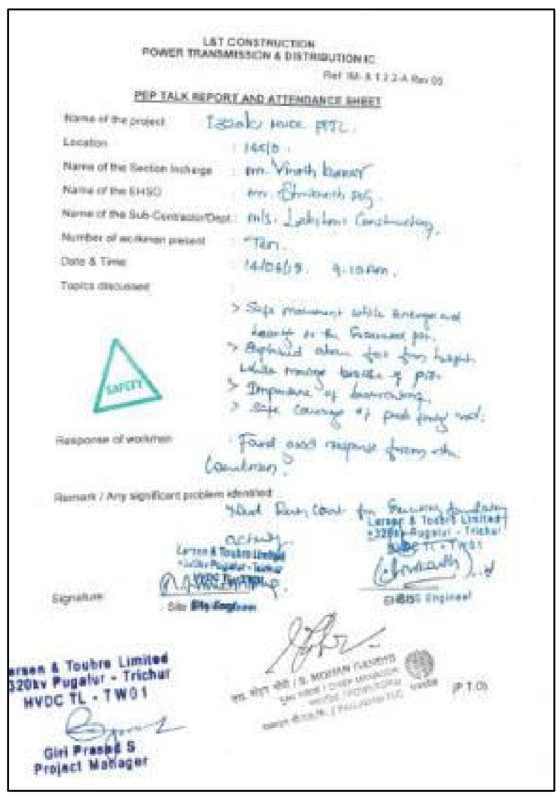
Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01 Site Engineer

Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01 EHS Engineer

Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01

Giri Prasad S Project Manager

S. MOHAN GANDHI



L&T CONSTRUCTION

POWER TRANSMISSION & DISTRIBUTION IC

Ref: IM- 8.1.2.2-A Rev 05

PEP TALK REPORT AND ATTENDANCE SHEET

Name of the project : [illegible] HVDC PTTL

Location : 146/0

Name of the Section Incharge : Mr. Vinoth Kumar

Name of the EHSO : Mr. [illegible]

Name of the Sub-Contractor/Dept : M/s. [illegible] Construction.

Number of workmen present : Ten.

Date & Time : 14/06/19. 9.10 Am.

Topics discussed :

> Safe movement while entering and leaving in the excavated pit.

> [illegible] while moving inside of pit.

> Importance of barricading.

> Safe [illegible]

SAFETY

Response of workmen : [illegible] response from the workmen.

Remark / Any significant problem identified : [illegible]

Signature

Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01 Site Engineer

Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01 EHS Engineer

S. MOHAN GANDHI

(P.T.O)

Larsen & Toubro Limited ±320kv Pugalur - Trichur HVDC TL - TW01

Giri Prasad S Project Manager

Annexure -1: Sample Copy of Compensation Process

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Myvadi(Post) Kaniyur (Via) Madathukulam(Thaluk) Tirupur (Dist) - 642 203

पावरग्रिड

Certificate of Compensation For tree Clearance issued under Indian Telegraph Act 1885

CCTC NO: 0051

This is to certify that as per the orders of the Engineer, tress / crops mentioned below were Felled/ damaged betwen location No 191 and PE for the construction of 400 K.V. Double circuit Pugulur - Edayarpalayam line and handed over to the landowners.

Particulars of Tress-Felled / Crops - damaged :

1. Maize damanged for tandalin - 4000 m
2. 1600 Sqm.
3.
4.
5.

The above mentioned tress / crops were in survey No. 89/2

Village Nandhavanapalayam Taluk Dharapuram and belongs to

Sri / Smt Gnanasundram s/o (Address) Nandhavanapalayam Thirumalaisamy

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

Conditions accepted

Signature of the landowner

For **POWERGRID**

Signature

(M. Anbazhagan)

Date : 09/10/2019

Place : Nandhavanapalayam

Notice Served to Affected Person

Department of Agriculture

20.09.2019

From R. Krishnaveni
Assistant Director of Agriculture,
Agriculture Extension centre,
Vellore-632513.

To

Powergrid corporation of India limited
765/400 KV Tiruvalam substation,
Katpadi
Vellore.

Sir,

Sub : Sending for valuation of agriculture crops compensation of vellore district Tamilnadu portion - Reg.

Here we have attached the of agriculture crops compensation of Walaja block-Vellore district Tamilnadu portion. So kindly see the attachment of annexure 1.

Thanking you.

R. Krishnaveni 20.9.19
Assistant Director of Agriculture
Walaja

POWER GRID CORPORATION OF INDIA LIMITED
THIRUVALAM TLC OFFICE

Name of the line: Pugular - Thiruvalam 400 kv DC Quad line
Name of Taluk: Vellore
List of Agriculture Tree - ii Details

20.9.19

Sl.No.	LOC Number	Notice /CCTC number	Name of the Land owners and village	Tree mark num	Name of the trees	APP. Girth in cm.	APP. Height in m.	Approximate AGE in Years	QTY	Amount per tree	Total amount Recommanded	Agriculture Blcok
1	53/0		Sh.Sv.Boopathy Naidu S/O SMVaradharaja Naidu, Sathambakkam mobile no.9500892186	R24	Coconut	100	12	above 25	1.0	30000	30000	WALAJA
2	53/0			R25	Coconut	100	10	above 25	1.0	30000	30000	WALAJA
3	53/0			R26	Coconut	100	10	above 25	1.0	30000	30000	WALAJA
4	53/0			R27	Coconut	130	11	above 25	1.0	30000	30000	WALAJA
5	53/0			R30	Coconut	90	10	above 25	1.0	30000	30000	WALAJA
6	53/0			L31	Coconut	110	11	above 25	1.0	30000	30000	WALAJA
7	53/0			L32	Coconut	110	10	above 25	1.0	30000	30000	WALAJA
8	53/0			L33	Coconut	110	11	above 25	1.0	30000	30000	WALAJA
9	53/0			R50	Coconut	130	10	above 25	1.0	30000	30000	WALAJA
10	53/0			L51	Coconut	110	10	above 25	1.0	30000	30000	WALAJA
11	53/0			R52	Coconut	120	8	above 25	1.0	30000	30000	WALAJA
			TOTAL						11.0	330000	330000	

R. Krishnaveni 20.9.19
Assistant Director of Agriculture
Walaja

Evaluation of Compensation Agriculture Dept

கிராம நிர்வாக அலுவலர் சான்று

VAO CERTIFICATE

Dharapuram தாலுக்கா பிர்கா Nondhavanampalayam கிராமத்தைச் சேர்ந்த திரு Devaki தபெ W/o. Gnana Sundaram கைபேசி எண் [redacted] என்பவருக்கு கொடுக்கப்படும் சான்று

மேற்படி நபருக்கு 89/[redacted] புல எண்ணில் 4.98.07 விஸ்தீரணம் உள்ள நிலம், பட்டா எண் 1532, 2350 ல் உள்ளது தற்சமயம் Maize பயிர் சாகுபடி செய்துள்ளது

இந்நிலத்தின் வழியாக தற்சமயம் பவர்கிரிட் நிறுவனத்தினரால் அமைக்கப்பட்டு வரும் உயர் மின் அழுத்த கோபுரங்கள்/மின் கம்பி அமைக்கும் பணி நடைபெற்று வருகிறது

மேலும் மேற்படி நபர் திரு ..... என்பவரின்/

The Above mentioned Person Name Sir/Smt Devaki

வங்கி கணக்கு விபரம்/ Bank Details for Electric Clearances

வங்கி பெயர்/Name of Bank : Canara Bank

வங்கி முகவரி/Address of Bank : Kundadam

சேமிப்பு கணக்கு எண் /SB Account No : [redacted]

RTGS/IFSC Code : [redacted]

இணைப்பு /Encl

- ✓ வங்கி கணக்கு புத்தக முதல் பக்கம் நகல்/Bank Pass Book 1st Page Xerox
- ✓ ஆதார் அட்டை நகல்/Aadhar Card Xerox

09/10/2019

நில உரிமையாளர் கையொப்பம்

கிராம நிர்வாக அலுவலர்
கிராம நிர்வாக அலுவலர்
02, நந்தவனம்பாளையம்,
தாராபுரம் வட்டம்.

Ownership Verification Certificate by Revenue Authority