

Compensation Plan for Temporary Damages (Draft)

Document Stage: Draft
Project Number: P49214-002
December 2016

IND: Solar Transmission Sector Project

**DRAFT COMPENSATION PLAN FOR TEMPORARY
DAMAGES (CPTD)**

for

PROJECT 49214-002 (IND)

Solar Transmission Sector Project

(Transmission System associated with Solar Power Parks at
Bhadla, Rajasthan)

**Submitted by Power Grid Corporation of India Limited for the Asian
Development Bank
December, 2016**

This compensation plan for temporary damage (CPTD) is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

TABLE OF CONTENTS

	PARTICULARS	PAGE
	EXECUTIVE SUMMARY	1
I	INTRODUCTION AND PROJECT DESCRIPTION	5
1.1	Background	5
1.2	The Project	5
1.3	Scope and Objective of the Compensation Plan for Temporary Damages (CPTD)	5
1.4	Project Components	5
1.4.1	Transmission System For Solar Power Parks at Bhadla, Rajasthan	5
1.5	Scope and Limitation of the CPTD	7
1.6	Measures to Minimize Impact	7
1.7	Civil Works Scheduling	8
1.8	Route Selection and Study of Alternatives	8
1.9	POWERGRID approach towards Route selection	9
II	PROJECT IMPACTS	10
2.1	General	10
2.2	Impact Due to Substations	11
2.3	Temporary Impacts Caused due to Transmission Lines (Right of Way)	11
2.3.1	Type and Use of Land within Corridor Right of Way	11
2.3.2	Affected Land area or Actual impact on Crop and others	12
2.3.3	Loss of Crops Caused due to Transmission Towers	13
2.3.4	Total loss of Crop Area (Corridor RoW and Towers)	13
2.3.5	Loss of Trees	13
2.4	Details on Affected Persons	13
2.5	Impact on Gender	14
2.6	Impact on Indigenous Peoples	14
2.7	Details of land to be traversed throughout ROW: 67 Meter for 765 KV D/C Tran. Line and 46 Meter for 400 KV D/C Transmission Line	15
2.8	Summary Impacts	16
III	SOCIOECONOMIC INFORMATION AND PROFILE	17
3.1	General	17
3.2	Socio-Economic Profile of Rajasthan	17
3.2.1	Land Use Pattern in Rajasthan	17
3.2.2	Jodhpur	17
3.2.2.1	Physiography	18
3.2.2.2	Climate	18
3.2.2.3	Water Resources	19
3.2.2.4	Mineral Resources	19
3.2.2.5	Soil	19
3.2.2.6	Ecological Resources	19
3.2.2.7	Human and Economic Development	19
3.2.2.8	Crops	19
3.2.2.9	Existing Industrial Status	20
3.2.3	Jaisalmer	20
3.2.3.1	Physiography	20
3.2.3.2	Climate	20
3.2.3.3	Water Resources	20
3.2.3.4	Mineral Resources	21
3.2.3.5	Soil	21

	PARTICULARS	PAGE
3.2.3.6	Ecological Resources	21
3.2.3.7	Human and Economic Development	21
3.2.3.8	Existing Industrial Status	21
3.2.4	Bikaner	21
3.2.4.1	Physiography	22
3.2.4.2	Climate	22
3.2.4.3	Water Resources	22
3.2.4.4	Mineral Resources	22
3.2.4.5	Soil	22
3.2.4.6	Ecological Resources	22
3.2.4.7	Human and Economic Development	23
3.2.4.8	Existing Industrial Status	23
3.3	Other Features	23
3.3.1	Households Details	23
3.3.2	Demography	23
3.3.3	Male and Female Population	24
3.3.4	Scheduled Caste (SC) and Scheduled Tribe (ST) Population	24
3.3.5	Male and Female Population among the Scheduled Caste	24
3.3.6	Male and Female Population among the Scheduled Tribe	25
3.3.7	Literacy	25
3.3.8	Literacy among Male and Female	25
3.3.9	Illiteracy among Male and Female	26
3.3.10	Total Workers	26
3.3.11	Total Non-Workers (Male and Female)	26
IV	INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION	27
4.1	Consultations	27
4.2	Summary of Public Consultation held	28
4.3	Plan for further Consultation and Community Participation during Project Implementation	28
4.4	Information Disclosure	29
V	GRIEVANCE REDRESS MECHANISMS	30
VI	LEGAL FRAMEWORK	31
6.1	Overview	31
6.2	ADB's Safeguard Policy Statement, 2009 (SPS)	31
6.3	Compensation	32
6.4	Statutory Requirements	32
6.4.1	The Electricity Act, 2003, Part-VIII, Section 67 & 68	32
6.4.2	The Indian Telegraph Act, 1885, Part-III, Section 10	33
6.4.3	POWERGRID's ESPP, 2009	34
6.5	Basic Principles for the Project	34
6.6	Cut-off- Date	35
VII	ENTITLEMENTS, ASSISTANCE AND BENEFITS	36
7.1	Entitlements	36
7.2	Entitlement Matrix	36
7.3	Procedure of Tree/crop compensation	38
VIII	COMPENSATION FOR STRUCTURE	41
IX	BUDGET	41
X	INSTITUTIONAL ARRANGEMENTS	43
10.1	General	43
10.2	Various Levels	43

	PARTICULARS	PAGE
10.2.1	Corporate Level	43
10.2.2	Regional Level	43
10.2.3	Site Office	44
10.3	Staff Training on Environment and Social Issues	45
XI	IMPLEMENTATION SCHEDULE	46
XII	MONITORING AND REPORTING	47
	LIST OF TABLES	
Table E-1	Entitlement Matrix	3
Table 1.1	Salient Features of the Project	7
Table 1.2	Details of Transmission Lines	7
Table 2.1	Details on Substations	11
Table 2.2	Type and Use of Land within Corridor of ROW (in Kms/Hectares)	12
Table 2.3	Estimation on Loss of Land for Crop Damage due to overhead Lines	12
Table 2.4	Loss of Crop Area estimated for Tower Footings	13
Table 2.5	Loss of Trees	13
Table 2.6	Number of Affected Persons	14
Table 2.7	Summary Impacts	16
Table 3.1	Land Use Pattern in Rajasthan	17
Table 3.2	Distribution of various geomorphic units in Jodhpur districts	18
Table 3.3	Source wise area irrigated in Jodhpur district (2010-11)	19
Table 3.4	Industrial Status of Jodhpur	20
Table 3.5	Industrial Status of Jaisalmer	21
Table 3.6	Details on Households	23
Table 3.7	Details on Total Population	23
Table 3.8	Details on Male/ Female Population	24
Table 3.9	Details on Percentage SC/ST	24
Table 3.10	Male and Female Population among SC	24
Table 3.11	Male and Female Population among ST	25
Table 3.12	Literate and Illiterate Population	25
Table 3.13	Male and Female Literacy	25
Table 3.14	Male and Female Illiteracy	26
Table 3.15	Details on Workers	26
Table 3.16	Details on Non Workers	26
Table 4.1	Details of Consultations	27
Table 4.2	Plan for Future Consultations	29
Table 7.1	Entitlement Matrix	37
Table 9.1	Budget	42
Table 10.1	Agencies Responsible for CPTD Implementation	44
Table 11.1	Tentative Implementation Schedule	46
List of Figures		
Figure-1	Grievance Redress Mechanism	30
Figure-2	Tree/ Crop Compensation Process	40
Figure-3	Organizational Support Structure for Monitoring	47
List of Annexures		
Annexure-1	Evaluation of Alternate Route Alignment	
Annexure-2	Location of Substations	
Annexure-3	Details of Public Consultation	
Annexure-4	MoP Guidelines	
Annexure-5	Action Plan for Safeguards	
Annexure-6	Sample Performa for Crop Compensation	

LIST OF ABBREVIATIONS

AP	Affected Person
AHH	Agricultural Households
ASI	Archaeological Survey of India
ADB	Asian Development Bank
CEA	Central Electricity Authority
CTU	Central Transmission Utility
Ckt-Km	Circuit-kilometer
CP	Compensation Plan
CPTD	Compensation Plan for Temporary Damages
CAO	Construction Area Office
CSR	Corporate Social Responsibility
CSS	Country Safeguard System
DPSP	Directive Principles of State Policy
DC	District Collector
D/c	Double Circuit
EPS	Electric Power Survey
EMF	Electro Magnetic Field
ESMD	Environment and Social Management Department
E&S	Environmental & Social
E&SM	Environmental & Social Management
ESMC	Environmental & Social Management Cell
ESMT	Environmental & Social Management Team
ESPP	Environmental & Social Policy and Procedures
EMP	Environmental Management Plan
EA	Executing Authority
EHV AC	Extra High Voltage Alternating Current
GIS	Geographical Information System
GW	Giga Watt
GOI	Government of India
GRC	Grievance Redress Committee
Ha	Hectare
HVDC	High Voltage Direct Current
IL&FS	Infrastructure Leasing & Financial Services
IPP	Independent Power Producers
INRs	Indian National Rupees
IP	Indigenous People
ISTS	Inter State Transmission Scheme
IR	Involuntary Resettlement
kV	Kilo volt
Km	Kilometer
LA	Land Acquisition
LAA	Land Acquisition Act
MVA	Mega Volt Ampere
MW	Mega Watt
MM	Mille Meters
MoEF&CC	Ministry of Environment, Forests and Climate Change
MoP	Ministry of Power
M&E	Monitoring and Evaluation

NoC	No Objection Certificate
NR	Northern Region
O&M	Operation and Maintenance
PESA	Panchayats (Extension to Scheduled Areas) Act, 1996
pH	Potential of Hydrogen
PTCC	Power and Telegraph Coordination Committee
PG/ POWERGRID	Power Grid Corporation of India Limited
PGCIL Pvt.	Power Grid Corporation of India Limited Private
RVPN	Rajasthan Vidyut Prasaran Nigam
RHQ	Regional Head Quarter
R&R	Resettlement and Rehabilitation
RP	Resettlement Plan
ROW	Right of Way
SPS	Safeguard Policy Statement of ADB, 2009
SCs	Scheduled Castes
STs	Scheduled Tribes
SMP	Social Management Plan
SQ.M.	Square Meters
SCM	Standing Committee Meeting
SEBs	State Electricity Boards
SH	State Highway
S/s	Substation
RFCTLARR	The Right to Fair Compensation and Transparency in Land, Acquisition, Rehabilitation and Resettlement Act
USD	United States Dollar

GLOSSARY

Block	An administrative sub-division within a district.
Panchayat	Elected Village Council/ the third tier of decentralized governance
Sarpanch	Elected head of the Gram Panchayat
Tehsil	A revenue sub-division, within a district
Zila/District	It is the first administrative division at the state level.



EXECUTIVE SUMMARY

i. The Compensation Plan for Temporary Damages (CPTD) has been prepared for the Project which is proposed to be financed by the Asian Development Bank (ADB). The Project shall not have significant impacts. Involuntary Resettlement (IR) is categorized as “B”, and Indigenous Peoples is categorized as “C”, as per ADB safeguard category system. CPTD is based on POWERGRID’s Environmental and Social Policy & Procedures, 2009 (ESPP) and the Action Plan for Safeguards developed for use of the country safeguard system (CSS) under the ADB Safeguard Policy Statement 2009 (SPS). The Executing Agency (EA) is the Power Grid Corporation of India Limited (PGCIL) who will also be responsible for implementing the Project. The CPTD is guided by The Electricity Act 2003, The Indian Telegraph Act, 1885, ESPP and the Action Plan for Safeguards.

ii. The Project components will consist of construction of new substation/bay extension (2 numbers). Bay extensions will be done within the existing substation and the land belongs to POWERGRID (at Bikaner S/s). 765/400kV Bikaner (PG) substation is already being established under Green Energy Corridor-Part-D scheme. Green Energy Corridors Part-D is funded by ADB. One new substation at Bhadla is proposed on government land which will be transferred from the concerned government departments. Due diligence was undertaken on the government land and it confirms that land is owned by the government. Land is not subject to claims/disputes, and is vacant and not used by encroachers and squatters. The CPTD has been prepared based on the preliminary route survey/ investigation. The impacts are temporary in nature in terms of loss of crops. Additionally, loss of tress is also foreseen. Temporary impacts are foreseen during the implementation and construction. Therefore, the CPTD remains as a draft, as final survey is not done yet and actual temporary impacts shall be known only during implementation which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation may also be paid in three instances, if there are different damages during above three activities. Assessment of damages at each stage and payment of compensation is a simultaneous and continuous activity. CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted to ADB by POWERGRID. The monitoring report will be disclosed on POWERGRID website.

iii. The Project components in Transmission system for Solar Power parks at Bhadla, Rajasthan under the ADB financing will include the following substation and transmission lines which will pass through the state of Rajasthan:

Transmission Line:

- 162.466 kilometers of 765 kV D/c Bhadla (PG) – Bikaner (PG) line (having 67 meters as Right of Way and estimated 421 numbers of tower footings)
- 23.148 kilometers of 400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line(having 46 meters as Right of Way and estimated 70 numbers of tower footings)

➤ Substation:

- 765/400/220kV Bhadla (PG)
- 765/400kV Bikaner (PG) Substation Extn.



iv. No transfer/acquisition of land is involved in transmission line and no physical displacement is foreseen in the project¹. Impacts are temporary in nature in terms of loss of crops and trees. Preliminary investigation/survey has been carried out for transmission lines to estimate/arrive at for selection of one best feasible alignment route out of at least 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though ROW is 67 Meter for 765 kV lines and 46 Meter for 400 kV lines, but average affected width/corridor would be limited to 40 Meter (Maximum). All the estimations in the CPTD have been done on the basis of preliminary survey. Actual Impacted area for Crops and Others damage would be restricted to 40 Meter Maximum width in the Corridor of Agricultural land and private plantations which work to be 692.168 hectares including 98.2 ha of land adjoining the tower foundation is estimated for crop compensation due to placing of 491 tower footings. Therefore, the total land required for temporary loss in terms of loss of crops is estimated to be 692.168 hectares. Total number of trees to be affected is 3,648 out of which 3,263 are private trees and 385 are Govt. trees. Private trees will be compensated in cash as per the entitlement matrix. The total number of affected persons is estimated to be 739.

v. Public participation and community consultations have been taken up as an integral part of the project's social and environmental assessment process. Public is informed about the project at every stage of execution. During survey also POWERGRID's site officials meet people and inform them about the routing of transmission lines. During the construction, every individual, on whose land tower is erected and people affected by ROW, are consulted. There were altogether 05 public consultations and informal group meetings held in Jun'16 during preliminary survey/investigations of the entire routes of transmission lines. During construction, a notice is issued to APs and a joint measurement is done by POWERGRID along with affected person for assessment of damages. Likely Affected People (APs) requested for timely payment of compensation towards crops etc if damaged during construction activities at the market rate. Their queries were replied to satisfaction and it was assured that compensation would be paid in time after Revenue department fixed/award the amount. The process of such consultation is to be continued during project implementation and even during O&M stage. The draft/summary CPTD will be disclosed by the POWERGRID to the affected households and other stakeholders by placing it on website for review and comments on the policy in general and adequacy of the mitigation measures in particular. POWERGRID site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. A notice is also issued to APs after the detailed/ check survey and finalization of tower location during the construction. Affected persons also visit site/construction offices of POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix will be made available to public through POWERGRID's construction offices in Hindi & English...

vi. Grievance redressal is in built in the process of compensation because after the notice the revenue officials assess the damages based on actual site condition and the version of land owner. After the preliminary assessment owner is given a chance to substantiate the claim if he is not satisfied with the assessment. Apart from this, POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. POWERGRID will develop, improve, and maintain recording and tracking systems for GRM. The proposed mechanism does not impede access to the country's judicial or administrative remedies.

vii. The CPTD is based on the ESPP and the Action Plan for Safeguards as well as on the Borrower's domestic policy instruments and laws. Being a transmission project, the relevant national

¹As per the present provision in the Electricity Act, 2003 read with relevant provisions of Indian Telegraph Act, 1885 all the damages (without acquisition of subject land) accrued to person while placing the tower and line are to be compensated.



laws applicable for this project are (i) The Electricity Act, 2003 and (ii) The Indian Telegraph Act, 1885. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Governments of India, ESPP and the Action Plan for Safeguards.

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

Table E-1: Entitlement Matrix

SN	TYPE OF ISSUE/IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper/ leaseholder ²	Only the cultivator ³ will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs ⁴	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		
	a) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below
	b) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place

²This may include non-titled APs.

³Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves.

⁴ Titled and Non-titled.



SN	TYPE OF ISSUE/IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
6	Impacts on vulnerable APs	Vulnerable APs ⁵	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under CSR activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate (#)
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate (#)

Note: (#): MoP issued guideline on 15.10.15 for payment of compensation towards damage in regard to RoW. Implementation is subject to acceptance by State Govt of Rajasthan.

ix. No physical displacement is envisaged in the proposed project. Major damages in transmission line are not envisaged due to flexibility of routing of transmission line. Transmission line construction is done mainly in the lean period to reduce damages to crops. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as per entitlement matrix of CPTD shall be provided. A notice for damage is issued to APs and the joint measurement by POWERGRID and APs is to be done and verified by revenue official for actual damages. Hence, Compensation is paid parallelly with the construction activity of transmission line. The resettlement cost estimate for the project includes eligible compensation for loss of crops, trees, and support cost for implementation of CPTD, monitoring, other administrative cost etc. This is a tentative budget which may change during the original course of implementation. The total indicative cost is estimated to be INR 541.45 million equivalent to USD 8.46 million.

x. POWERGRID will be the Executing Agency (EA) for the Project. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule. Monitoring is a continuous process for POWERGRID projects at all the stages are it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the environmental and 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 and Managing Director of the Corporation. The progress of various on-going projects is also informed to the Board of Directors. POWERGRID have a separate Environment and Social Management Department at Corporate Center and Environment and Social Management Cell (ESMC) at RHQ to monitor environment and social issues. At site level, ESMT shall be responsible for implementation and monitoring of CPTD.

xi. Public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Monitoring will be the responsibility of POWERGRID. POWERGRID will disclose semi-annual monitoring reports on their safeguards implementation performance on its website and submit the reports to ADB for disclosing the same on the ADB website. POWERGRID will engage the services of an independent agency/External monitoring, if required.

⁵Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.



I. INTRODUCTION AND PROJECT DESCRIPTION

1.1. Background

1. Power Grid Corporation of India Ltd (POWERGRID), the Central Transmission Utility (CTU) of India is engaged in power transmission with the mandate for planning, coordination, supervision and control over complete Inter-State Transmission system. As on 31st May 2016, POWERGRID has established about 1,30,020 circuit-kilometer (Ckt-km) of transmission lines at 765 kV, 400 kV, 220 kV and 132 kV extra high voltage alternating current (EHV AC), and 500 kV high voltage direct current (HVDC) levels and 210 substations (S/S) with transformation capacity of about 2,59,163 MVA. This transmission network, spread over length and breadth of India, is consistently maintained at an availability of over 99% through deployment of state-of-the-art Operation and Maintenance techniques at par with global standards. About 50 % of total power generated in India is wheeled through transmission network.

2. POWERGRID has been contributing significantly towards the development of India 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 and managerial fields.

1.2. The Project

3. The Project output is Transmission System for Solar Power Parks at Bhadla. The Government of India (GoI) has requested a loan from ADB through ordinary capital resources. Executing Agency is the POWERGRID. POWERGRID has already established a Project Management Unit (PMU), functioning under the guidance of technical committee of experts and assisted as required by implementation consultants.

1.3. Scope and Objective of the Compensation Plan for Temporary Damages (CPTD)

4. The Compensation Plan for Temporary Damages (CPTD) is guided by the Electricity Act 2003, the Indian Telegraph Act, 1885, POWERGRID's Environmental and Social Policy & Procedures, 2009 (ESPP), and the Action Plan for Safeguards developed for the use of Country Safeguard System (CSS) under the ADB Safeguard Policy Statement 2009 (SPS).⁶The primary objective of the CPTD is to identify impacts and to plan measures to mitigate losses likely to be caused by the projects. The CPTD is based on the general findings of field visits, preliminary assessments and meetings with various project-affected persons in the project areas. The CPTD presents (i) introduction and project description (ii) project impacts (iii) socio-economic information and profile (iv) information disclosure, consultation and participation,(v) grievance redress mechanisms,(vi) legal framework (vii) entitlement, assistance and benefit (viii) compensation for structure (ix) budget (x) institutional arrangements (xi) implementation schedule (xii) monitoring and reporting.

1.4. Project Components

Specific details of project investments are as follows:

1.4.1. Transmission System For Solar Power Parks At Bhadla, Rajasthan

⁶Equivalent to the safeguard document required for ADB's environment category B projects. This CPTD has also fully met the requirements of ADB's Safeguard Policy Statement 2009.



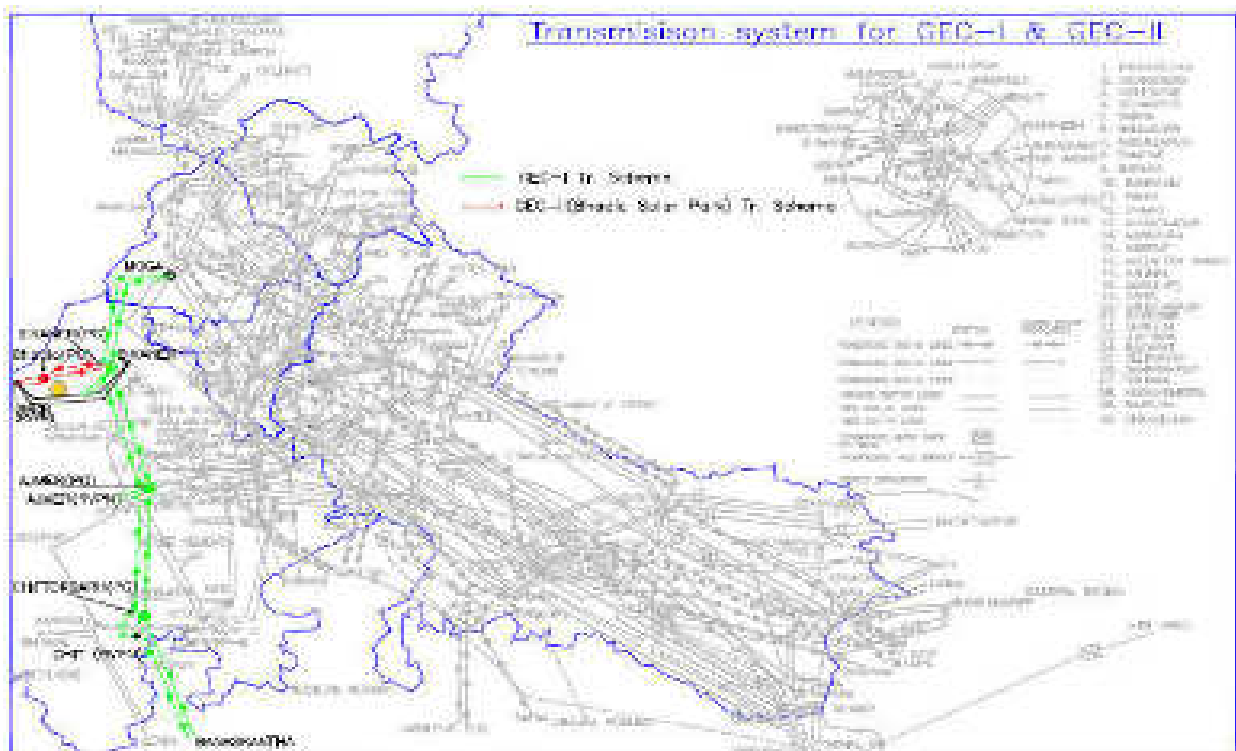
5. Government of India has taken an initiative for development of Solar Power Parks (SPP) in various parts of the country. As part of above initiative, an ultra-mega solar Power park is being developed by M/s Surya Urja Company of Rajasthan Ltd (JVC of Govt. of Rajasthan and IL&FS) for 1000MW capacity, M/s Adani renewable energy park Rajasthan Ltd. (JVC of Govt. of Rajasthan and AREPL) for 500MW capacity as well as by M/s Essel Saurya Company of Rajasthan Ltd (JVC of Govt. of Rajasthan and Essel Infraprojects Ltd) for 750 MW in/near Bhadla, Jodhpur district, Rajasthan. Ministry of Power (MOP) informed that evacuation system for various solar parks including Solar Power Parks in Bhadla, Rajasthan shall be developed by POWERGRID in compressed time schedule. The interstate transmission scheme for Solar Power Parks in Rajasthan was discussed and agreed in the 36th Standing committee meeting on Power system Planning of Northern region held on 13.07.15 as well as in 37th Standing committee meeting on Power system Planning of Northern region held on 20.01.16.

6. The sub-project components under the above scheme include following transmission lines and substations:

- 765 kV D/c Bhadla (PG) – Bikaner (PG) line.
- 400 kV D/c (Quad) Bhadla (PG)- Bhadla (RVPN) line.
- 765/400/220kV Bhadla (PG)
- 765/400kV Bikaner (PG) Substation Extn

7. The sub-project has an associated facility 400kV Bhadla (RVPN) Substation Extn which has already been assessed under ADB's previous loan to Rajasthan Rajya Vidyut Prasaran Nigam (RVPN), the Rajasthan State Transmission Utility (STU).

The map showing existing interstate transmission system of Northern region with Transmission System for Solar Power Parks at Bhadla, Rajasthan in red Colour is given below:





8. The project components under the proposed ADB financing include construction of 185.614 kilometers (Kms) (23.148 Kms of 400 kV line and 162.466 Kms of 765 kV lines) transmission lines which will traverse through the state of Rajasthan and will cover 03 districts such as Jodhpur, Jaisalmer, Bikaner. Salient Features of the Project is described in **Table 1.1** and details on each lines are described in **Table 1.2**.

Table 1.1: Salient Features of the Project

a)	Project	:	Transmission system for Solar Power parks at Bhadla, Rajasthan
b)	Location of the Project	:	Northern Region
c)	Project Cost	:	Rs. 1409.88 Crores at October 2015 Price Level (including IDC of Rs. 79.78 Crores)
d)	Commissioning schedule	:	Transmission System is proposed to be implemented within 30 months from the date of investment approval.

Table 1.2: Details of Transmission Lines

S.No	Name of the Lines	Length (in Kms)	Right of Way (Meters)	Number of Towers
1.	765 kV D/c Bhadla (PG) – Bikaner (PG) line	162.466	67	421
2.	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	23.148	46	70

1.5. Scope and Limitation of the CPTD

9. The CPTD has been prepared based on the preliminary route investigation/ survey. The project shall not have significant impacts. Involuntary Resettlement (IR) is categorized as “B”⁷, and Indigenous Peoples is categorized as “C” as per the ADB safeguard category system. The impacts are temporary in nature in terms of loss of crops in the Right of Way. Additionally, loss of trees is foreseen. Temporary impacts are foreseen during the implementation and construction. Therefore, the CPTD remains as a draft, as final survey is not done yet and actual temporary impacts shall be known only during implementation which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation may also be paid in three instances, if there are different damages during above three activities. CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by POWERGRID.

1.6. Measures to Minimize Impact

10. In keeping with the POWERGRID’s ESPP and the Action Plan for Safeguards, the routes of these transmission lines have been finalized to avoid or to minimize impacts towards temporary damages on crops/ trees/ structures if any coming in the Right of Way (ROW) during construction.

⁷ A proposed project is classified as category B if it includes involuntary resettlement impacts that are not deemed significant which means less than 200 persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan are commensurate with the significance of the potential impacts and risks.



Further field visits and public consultations helped in developing the measures towards minimizing negative social impacts, if any.

1.7. Civil Works Scheduling

11. For transmission line (only) coming under any subprojects, POWERGRID follows the law of the land i.e. in exercise of the powers under Indian Telegraph Act 1885, part 3, section 10 to 19 conferred under section 164 of the Electricity Act 2003 through Gazette by India, extra ordinary dated 24th Dec. 2003, has the domain to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. However, as per clause 10 (d) of same act stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Therefore, POWERGRID has developed a procedure which is designed to minimize impacts, during the preliminary survey/ investigation (for screening & Scoping of the project with at least 3 alternative route alignments), thereafter during detailed survey (spot)/design followed by foundation work, tower erection and during the stringing of conductors.

a) Towers foundations and footings

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

b) Towers erection

13. Because the concrete needs time to dry and settle, all towers are erected normally three weeks later, after the end of the following crop season and before the following one.

c) Stringing

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

15. For this reason no household is expected to be significantly affected. Thus, productive loss due to construction is negligible. However, due care shall be taken to avoid damages to crop/trees by taking up the construction activities during lean period or post harvest season. As per the prevailing norms farming activity shall be allowed after the construction work is completed. All affected farmers will be compensated for all sorts of damages during construction as per the laid down procedure.

1.8. Route Selection and Study of Alternatives

16. At the system planning stage itself one of the factors that govern the evolution of system is the possible infringement with the forest. Wherever such infringements are substantial, different alternative options are considered. The route/ site selection criteria followed by POWERGRID is detailed below:

17. While identifying the transmission system for a generation project or as a part of National Power Grid, preliminary route selection is done by POWERGRID based on the Topo sheets of Survey of India and Forest Atlas (Govt. of India's Publication). During route alignment all possible efforts are made to avoid the forest area involvement completely or to keep it to the barest minimum, whenever it becomes unavoidable due to the geography of terrain or heavy cost involved in avoiding it. Evaluation of alternative route alignments of each line is provided in **Annexure-1**.



1.9. POWERGRID approach towards Route selection

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

- a) The route of the proposed transmission lines does not involve any human rehabilitation.
- b) Any monument of cultural or historical importance is not affected by the route of the transmission line.
- c) The proposed route of transmission line does not create any threat to the survival of any community with special reference to Tribal Community.
- d) The proposed route of transmission line does not affect any public utility services like playgrounds, schools, other establishments etc.
- e) The line route does not pass through any sanctuaries, National Park etc.
- f) The line route does not infringe with area of natural resources.

19. In order to achieve this, POWERGRID undertakes route selection for individual transmission lines in close consultation with representatives from the State Forest Department and the Department of Revenue. Although under National law POWERGRID has right of eminent domain for placing towers on Private land (Section 164 of Electricity Act read with section-10 of Indian Telegraph Act 1885) yet alternative alignments are considered keeping in mind the above-mentioned factors during site selection, with minor alterations often added to avoid environmentally sensitive areas and settlements at execution stage.

- As a rule, alignments are generally cited 10-15 km away from major towns, whenever possible, to account for future urban expansion.
- Similarly, forests are avoided to the extent possible, and when it is not possible, a route is selected in consultation with the local Divisional Forest Officer, that causes minimum damage to existing forest resources.
- Alignments are selected to avoid wetlands and unstable areas for both financial and environmental reasons.

20. In addition, care is also taken to avoid National parks and sanctuaries and any other forest area rich in wild life. Keeping above in mind the routes of proposed lines of the entire *Transmission system for Solar Power parks at Bhadla, Rajasthan* has been so aligned so that it takes care of above factors. As such different alternatives were studied with the help of Govt. published data like Forest atlas, Survey of India topo maps, satellite imageries etc. to arrive at most optimum sections of the route which can be taken up for detailed survey and assessment of environmental & social impacts for their proper management.



II. PROJECT IMPACTS

2.1. General

21. The project does not require any private land acquisition for construction of transmission lines under the proposed ADB financing components. Therefore, no physical displacement is foreseen in the project. Impacts are temporary in nature in terms of loss of crops in the Right of Way. Additionally, loss of trees is also foreseen. Preliminary investigation/survey has been carried out for transmission lines to estimate/arrive at for selection of one best feasible alignment route out of at least 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. Therefore, preparation of Compensation Plan Temporary Damages (CPTD) for entire transmission system has been done after the preliminary investigation/survey. All the assessments in the draft CPTD are based on preliminary survey and estimations. During Preliminary survey/ investigation carried out in entire route, the details of land have been gathered to have an idea about the temporary damages might occur during construction of the transmission line. The corridor of width (ROW-Right of Way) required for 765 KV D/C and 400 KV D/C Transmission line is 67 meter and 46 meter respectively. The temporary impacts on loss of crops and trees are caused due to transmission lines and placing of transmission tower.

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

23. Agriculture areas: The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 0.45 to 0.70 m. a small square area of about 0.20 sq.m. to 0.49 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 765 kV D/C & 400KV D/C transmission tower is approximately 1 sq.m. of land. Due diligence confirms that land is either agricultural or barren, and current land use is not altered and resumed after construction.

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

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

26. Other Damages: Like bunds, water bodies, fish ponds, approach paths, drainage and irrigation canals etc are at best avoided. However, if damaged compensation as per practice, the State Govt.



Revenue Department assess the cost of damage. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ Sarpanch and respective acknowledgements are obtained and POWERGRID pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.

2.2. IMPACT DUE TO SUBSTATIONS

27. The Project components will consist of construction of new substation/bay extension (2 numbers). Bay extensions will be done within the existing substation and the land belongs to POWERGRID (at Bikaner S/s). 765/400kV Bikaner (PG) substation is already being established under Green Energy Corridor-Part-D scheme which is funded by ADB. The project involves extension at Bikaner Substation for which all assessments have been done and all details have already been shared in the CPTD prepared for Green Energy Corridors which has been approved by ADB. One new substation (Bhadla) measuring 53 ha is proposed on government land which will be transferred from the concerned government departments. Due diligence was undertaken on the government land and it confirms that land is owned by the government and was not earlier acquired from a private party in anticipation of the project. Land is not subject to claims/disputes, and is vacant and not used by encroachers and squatters. The location of Substations are enclosed as **Annexure-2**.

Details of Substations under ADB funding are given in **Table 2.1**:

Table 2.1: Details on Substations

Sl. No.	Project Components	Permanent Impact (Land Acquisition)	Temporary Impact on loss of crops	Impact on Loss of Trees	Remarks
Transmission system for Solar Power parks at Bhadla, Rajasthan					
1	765/400/220 kV Bhadla Substation (PG)	Nil	Nil	Nil	Government land
2	765/400kV Bikaner (PG) Substation Extn	Nil	Nil	Nil	POWERGRID/ Government land

2.3. Temporary Impacts Caused due to Transmission Lines (Right of Way)

2.3.1. Type and Use of Land within Corridor Right of Way

The line corridors will pass through mixed land uses which are generally agricultural land, private plantation, forest, reverine feature and barren unused land etc. The calculations are based on preliminary investigation/ survey carried out along the route of transmission lines and is based on the total line length of each line and its respective right of way⁸. The total line length is 185.614 kilometers which will impact an estimated of 1,195.003 hectares (ha) of land. This includes 129.93 kms of line passing through agricultural land (836.5026 ha of agricultural land), 18.562 kms of private plantation (119.5039 ha of private plantation land) and 37.122 kms of barren/unused land (238.996 ha of barren/unused land). A brief description about the type and use of land in the corridor is given in **Table 2.2**.

⁸ Total Line Length (kilometers) X Right of Way (meters)X1000/ 10,000= Area in Hectare



Table 2.2 Type and Use of Land within Corridor of ROW (in Kms/Hectares)

S N	Name of the Lines	RoW Width (in meter)	Agricultural land	Private Plantation	Forest	Reverine feature	Barren/ unused land	Total
1	765 kV D/c Bhadla (PG) – Bikaner (PG) line	67	113.726 kms/ (761.9642 ha)	16.247 kms/ (108.8549 ha)	0 kms	0 kms	32.493 kms/ (217.7031 ha)	162.466 kms/ (1088.522 ha)
2	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	46	16.204 kms/ (74.5384 ha)	2.315 kms/ (10.649 ha)	0 kms	0 kms	4.629 kms/ (21.2934 ha)	23.148 kms/ (106.4808 ha)
	TOTAL		129.93 kms/ (836.5026 ha)	18.562 kms/ (119.5039 ha)	0 kms	0 kms	37.122 kms/ (238.9965 ha)	185.614 kms/ (1195.003 ha)

Source: Preliminary Survey

28. The total land as calculated does not necessarily be considered for crop compensation. The actual land for crop compensation is described in following paragraphs.

2.3.2. Affected Land area or Actual impact on Crop and others

29. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though ROW is 67 Meter for 765 kV lines and 46 Meter for 400kV lines, but average affected width/corridor would be limited to 40 Meter (Maximum). As per POWERGRID's strategy and practices all out efforts are made to reduce the damages to crops and to minimize the impact whatsoever. One of the reasons is POWERGRID schedules its construction activities in lean season or post harvest periods. Previous projects executions show only 45% crop damages on an average even within the area of width 40 meter. For the purpose of calculation of loss of crops and others (impact), average 40 meter width has been considered for the lines though on higher side. The damages is not done in complete RoW (67 m for 765 kV D/c and 46 m for 400 kV D/c), it is mostly restricted to tip to tip of the conductor (approx. 25 m for 765 kV and 20 m for 400 kV). Calculation is done on higher side i.e. 40 m considering other damages. It revealed that the most of the affected land may be used within 40 meter wide is agricultural land where crops/ trees exist. Actual Impacted area for Crops and Others damage would be restricted to 40 Meter Maximum width in the Corridor of Agricultural land and private plantations which works to be 692.168 Ha. [(148.492 Km x 40 meter =593.968 Ha)+ 98.2 Ha (for tower foundation)]. Brief description about the type of land in 40 meter corridor (width) of above Transmission Line is given in **table 2.3**:

Table 2.3: Estimation on Loss of Land for Crop Damage due to overhead Lines

S. N.	Name of the Lines	Width Considered for Estimation of Loss of Crops & other (impacts)	Total Agricultural Land (kms)	Total Private Plantation (kms)	Total Line Length Considered for Crop Compensation (kms)	Total Land Area considered for Crop Compensation with 40 meter width(Hectare)
1	765 kV D/c Bhadla (PG) – Bikaner (PG) line	40	113.726	16.247	129.973	519.892
2	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	40	16.204	2.315	18.519	74.076
	TOTAL	40	129.93	18.562	148.492	593.968

Source: Preliminary Survey



2.3.3. Loss of Crops Caused due to Transmission Towers.

30. During tower foundation, additional area adjoining the actual foundation area will be affected. For estimation purpose, additional area of 2,000 sq.m. [(60mX60m)-(40mX40m)] per tower has been considered. Additionally, 98.2 ha of land is estimated for crop compensation due to placing of 491 tower footings. Details are given in **Table 2.4**:

Table 2.4: Loss of Crop Area estimated for Tower Footings

SI No	Name of the Lines	No of Towers	Area Affected (Ha)
1	765 kV D/c Bhadla (PG) – Bikaner (PG) line	421	84.2
2	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	70	14
	TOTAL	491	98.2

Source: Preliminary Survey

2.3.4. Total loss of Crop Area (Corridor RoW and Towers)

31. Based on the above estimation, the total land considered for crop compensation for transmission line corridor and tower foundation is [148.492 Km x 40 meter =593.968 Ha + 98.2 Ha for tower foundation]= **692.168 hectares**. As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures, adequate compensation as per norms shall be paid to all affected APs. During construction, only temporary damages will occur for which the compensation shall be paid as per relevant rules. For total towers (491 nos), temporary damages during tower foundation shall be 176.76 ha. After construction, the total land loss estimated to be about 0.0491 ha which is 0.027% of the temporary damage area and the land owners have balance land in other areas also. Thus productive loss due to construction is negligible. However, Compensation plan for APs towards temporary damage shall be required which is a part of CPTD.

2.3.5. Loss of Trees

32. Total numbers of trees to be affected are 3,648 out of which 3,263 are private trees and 385 are Govt trees. Private trees will be compensated as per the entitlement matrix. Details on number of trees for each line are given in **Table 2.5**:

Table 2.5: Loss of Trees

S.No.	Name of Line	Trees in Private Area (Numbers)	Trees in Govt Area (Numbers)	Total Trees (Numbers)
1.	765 kV D/c Bhadla (PG) – Bikaner (PG) line	2,856	317	3,173
2.	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	407	68	475
	Total	3,263	385	3,648

Source: Preliminary Survey

2.4. Details on Affected Persons

33. It is estimated that as per preliminary survey/ investigation, total number of affected persons which may be impacted temporarily will be approximately 739. This is a preliminary assessment.



Details are given in **Table 2.6**. The number of APs in the table refers to the most conservative option. POWERGRID will schedule civil works in such a way to minimize impacts and substantially reduce the damages to crops and therefore the number of affected persons and Agricultural Households (AHH).

Table 2.6: Number of Affected Persons

S.No.	Name of Line	Length in Kms	Total APs
1.	765 kV D/c Bhadla (PG) – Bikaner (PG) line	162.466	631
2.	400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	23.148	108
	Total	185.614	739

Source: Preliminary Survey

2.5. Impact on Gender

34. The predominant activity of women is household work, where they spend most of their time. Additionally, women are also involved in agriculture activity. Women will not be affected negatively due to the project. Provision for equal wages and health and safety facilities during the construction will be ensured by the EA. As the damages are temporary in nature, which are compensated at market rate and no loss of any asset is involved, hence no negative impact on APs is foreseen. Moreover, it is envisaged that any parity in payment for equal amount of damages at same locations will lead to tension in social fabric of the locality.

2.6. Impact on Indigenous Peoples

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

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

36. Essentially, indigenous people have a social and cultural identity distinct from the 'mainstream' society that makes them vulnerable to being overlooked or marginalized in the development processes. STs, who have no modern means of subsistence, with distinctive culture and are characterized by socio-economic backwardness, could be identified as Indigenous Peoples. Indigenous people are also characterized by cultural continuity. Constitution of India identifies schedule areas which are predominately inhabited by such people. The proposed transmission lines are located in Rajasthan which has no schedule area as such. Hence, no indigenous population is envisaged in the project area.

37. Government of India has notified scheduled area to safeguard the interests of indigenous people. Constitution bestows special power to governor, for validating laws, to be implemented in scheduled V areas. Similarly, autonomous councils have been constituted to safeguard interests of indigenous people in Scheduled VI areas. Laws such as Panchayats (Extension to Scheduled Areas) (PESA) Act, 1996, extends the vision of self-governance (as enshrined in Directive Principles of State Policy (DPSP) given in constitution), to the schedule V areas. Several other safeguards are in place to counter the vulnerability imposed upon indigenous people because of their origin and socio economic background. The lines are not passing through any notified scheduled areas of Rajasthan. As the proposed project is totally confined in the state of Rajasthan, so it won't have any impact on indigenous people. No laws / policies applicable for indigenous people shall be applicable in project area.



2.7. Details of land to be traversed throughout the Right of Way (ROW): 67 Meter for 765 KV D/C Transmission Line and 46 Meter for 400 KV D/C Transmission Line

Line-1:765 kV D/c Bhadla (PG) – Bikaner (PG) line

Land Use	Type	Total Distance	
		Km	%
Cultivation	Agriculture	113.726	70
Private Plantation		16.247	10
Forest	Sparse	-	-
	Moderate	-	-
	Moderately dense	-	-
	Dense	-	-
	Road Side Plantation	-	-
Shrubs		-	-
Barren Land		32.493	20
Riverine features		-	-
Total		162.466	100

Line-2:400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line

Land Use	Type	Total Distance	
		Km	%
Cultivation	Agriculture	16.204	70
Private Plantation		2.315	10
Forest	Sparse	-	-
	Moderate	-	-
	Moderately dense	-	-
	Dense	-	-
	Road Side Plantation	-	-
Shrubs		-	-
Barren Land		4.629	20
Riverine features		-	-
Total		23.148	100

From the above it may be observed that out of about total 185.614 kms line, 129.93 kms is cultivated land which is close to 70%, rest is private plantation, barren in nature. Tree/crops Compensation will have a major role to play for the implementation of the subprojects. This has to be dealt with methodically, sincerely & meticulously in consultation with temporary APs (preferably public consultation at least in every 20-50 Km of the stretch along with Govt./Revenue officials and with proper documentation.

2.8. Summary Impacts

38. Preliminary investigation/survey carried out while arriving at nearly final alignment out of at least



3 alternative alignments for taking up detailed survey reveals the following summary impacts:

- 765 kV D/c Bhadla (PG) – Bikaner (PG) line involves agricultural land about 761.9642 Ha. of land with about 2,856 trees. Temporary Affected Persons (APs) are about 631 nos.
- 400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line involves agricultural land about 74.5384 Ha. of land with about 407 trees. Temporary Affected Persons (APs) are about 108 nos.

39. Based on the preliminary assessment, summary impacts on loss of crops, trees, other structures and number of APs are given in **Table 2.7**.

Table 2.7: Summary Impacts

Particulars	Details
Length in Kms	185.614
Number of Towers	491
Area under RoW (ha)	1,195.003
Total APs	739
Affected Structures (Hut etc for agricultural purpose)	00
Area of Temporary Damages (Ha) for crop compensation	692.168
Trees in private Area (Nos.)	3,263
Trees in Govt Area (Nos.)	385
Total Trees	3,648

Source: Preliminary Survey



III. SOCIOECONOMIC INFORMATION AND PROFILE

3.1. General

40. The socio-economic profile of the project areas is based on general information collected from various secondary sources. As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures adequate compensation as per norms shall be paid to all APs. This chapter provides broad socio-economic profile in terms of demography, literacy, employment and other infrastructure etc in the state of Rajasthan and districts (Bikaner, Jodhpur and Jaisalmer) through which the lines will traverse. Following section briefly discuss socio-economic profile.

3.2. Socio-Economic Profile of Rajasthan

3.2.1. Land Use Pattern in Rajasthan

41. Rajasthan, the largest state of the country, is located in the north-western part of the country. It has a geographical area of 342,239 square kilometres which constitutes 10.41% area of the country's geographical. It lies between latitude 23°4' to 30°11' N and longitude 69°29' to 78°17' E. Physiographically, the state can be divided into four major regions, namely, the western desert with barren hills, level rocky/sandy plains, the Aravalli hills and south-eastern plateau. The general land use pattern of the state is given in **Table 3.1**:

Table 3.1: Land Use Pattern in Rajasthan

Land use	Area in ' 000 ha	Percentage
Total geographical area	34,224	
Reporting area for land utilization	34,267	100.00
Forests	2,750	8.03
Not available for cultivation	4,275	12.48
Permanent Pasture & Grazing land	1,694	4.94
Land under misc. tree crops & groves(not incl. in net area sown)	23	0.07
Culturable waste land	4,152	12.12
Fallow land other than current fallows	2,024	5.91
Current fallows	1,869	5.45
Net area Sown	17,479	51.01

Source: Land use statistics, Directorate of Economics and Statistics, 2012-2013

42. The proposed project involves three districts of Rajasthan (Jodhpur, Jaisalmer and Bikaner).

3.2.2 Jodhpur

43. Jodhpur district is among the largest districts in the state of Rajasthan. It is centrally situated in the western region of the state, and covers a total geographical area of 22,850 Sq. Kms. Jodhpur district lies between 26°0' & 27°37' north latitude and 72°55' and 73°52' east longitude. It is bounded by Nagaur in the east, Jaisalmer in the west, Bikaner in the north and Barmer and Pali in the South. The total length of the district from north to south is about 197 Kms and from east to west it is about 208



Kms. The district of Jodhpur lies at a height of 250-300 metres above sea level.

3.2.2.1. Physiography

44. Jodhpur district forms part of Great Thar Desert of Rajasthan. In this arid region, there are sand dunes, alluvial areas dotted with few hillocks and hill chains scattered in the area. In the eastern part of the district, the area between Bilara and Jodhpur is covered by alluvium deposited due to fluvial action of Luni river system. The eastern part of the district exhibits gentle undulating topography interrupted by small ridges of hard rocks. The general elevation of plains varies from 300 m amsl in north to 150 m amsl in south. Regional slope is from north-east towards south-west direction. Orientation of alluvial plain area follows the Luni River and its tributaries. Sand dunes occupy a major part of the district north of Vindhyan escarpment in northern and north western part of the district. The sand dunes are transverse and longitudinal types formed due to aeolian action and overlie the denuded consolidated formations. Ridges and hillocks are common features in Bilara and Osian tehsils. A chain of escarpments and ridges composed of comparatively resistive rocks like granite, rhyolite and Jodhpur sandstone are found extending from Shergarh in the west to Bilara in the east. The alluvial and sand filled valleys are separated by the ridges whose crest elevation ranges from 325 to 460 m amsl. In the northern part of the district, highest peak of the hill is 284 m amsl. Presence of boulder beds exhibits striking plain topography around Bap and low lying outcrops of limestone, shale and sandstone layers are observed in northern part of the district near Phalodi. Distribution of various geomorphic units in the district is shown in **Table 3.2**.

Table 3.2: Distribution of various geomorphic units in Jodhpur districts

Origin	Landform Unit	Occurrence
Aeolian	Sand dunes	North and northwestern part of the district.
	Sandy Plains	North and northwestern part of the district.
Fluvial	Alluvial Plains	Eastern part of the district along rivers- Luni, Mithri etc.
	Interdunal Plains	Scattered in entire district, mainly in north and western part of the district.
Denudational	Pediments	Scattered in district, mainly in east and west.
Hills	Linear Ridges	Occur in Bilara and Osian Blocks. Extend from Shergarh in the west to Bilara in the east.
	Structural Hills	In northwestern and eastern parts of the district and Jodhpur town.

3.2.2.2. Climate

45. The district experiences arid to semi-arid type of climate. Mean annual rainfall (1971-2012) of the district is 374 mm whereas normal rainfall (1901-1970) is lower than average rainfall and is placed at 314 mm. Rainy days are limited to maximum 15 in a year. Almost 80% of the total annual rainfall is received during the southwest monsoon, which enters the district in the first week of July and withdraws in the mid of September. Drought analysis based on agriculture criteria indicates that the district is prone to mild and normal type of droughts. Occurrence of severe and very severe type of drought is very rare. As the district lies in the desert area, extremes of heat in summer and cold in winter are the characteristic of the desert. Both day and night temperatures increase gradually and reach their maximum in May and June respectively. The temperature varies from 49° C in summer to 1°C in winter. Atmosphere is generally dry except during the monsoon period. Humidity is the highest in August with mean daily relative humidity at 81%. The annual maximum potential evapotranspiration in the district is quite high and is highest (264.7 mm) in the month of May and lowest (76.5 mm) in the month of December.



3.2.2.3. Water Resources

46. Jodhpur district falls in the Luni and Barmer Basins. Major River of the district is Luni, which flows in ENE – WSW direction. It enters Jodhpur district near village Jhak in Bilara tehsil and leaves the district near village Dhundhara. Total length of the Luni River in Jodhpur district is 125 km. Channel pattern of Luni is dendritic to sub-parallel. However, in major part of the district, the drainage is essentially ephemeral and internal. Important tributaries to the Luni river are Mithri and Bandi. Other streams in the district are Jojri, Golasmi, Guniamata and Bastua, which are all ephemeral.

47. Ground water is the only source of irrigation in the district. Gross area of irrigated land by wells and tubewells works out to 407,169 hectares. Maximum irrigated area is in Osian tehsil followed by Bhopalgarh and Bilara tehsils respectively. Minimum area under irrigation is in Luni tehsil due to poor ground water potential. Source wise details of area irrigated in the district are given in **Table 3.3**.

Table 3.3: Source wise area irrigated in Jodhpur district (2010-11)

Source	Net Irrigated Area (ha)	Gross Irrigated Area (ha)
Tubewells	260,535	401,315
Other wells	4,884	5,592
Other sources	262	262
Total	265,681	407,169

3.2.2.4. Mineral Resources

48. District is mainly rich in non-metallic minerals like Sandstone, Rhyolite, Dolomite, Limestone, Jasper, Granite & Clay. Murram, Kankar, Brick earth, Bajri and other minor minerals.

3.2.2.5. Soil

49. Major Soils of the district are Red desertic soils, Desert soils, Sand dunes and Lithosols and regosols of hills.

3.2.2.6. Ecological Resources

50. The recorded forest area of the district is 98 sq.km. which is 0.43% of the district's geographical area.

3.2.2.7. Human and Economic Development

51. In 2011, Jodhpur had population of 3,687,165 of which male and female were 1,923,928 and 1,763,237 respectively. 34.30% population lives in urban regions of district.

3.2.2.8. Crops

52. Agricultural activities in the district mainly dependent on rains. Kharif is the main crop of the district. Rabi crop is mainly cultivated in Bilara, Bhopalgarh and Osian Tehsils only. Bajra, Moong, Moth, Sesamum (Til), Jowar and Cotton to some extent are the main crops of Kharif whereas wheat, Barley, Gram, Mustard, Raida, Taramira etc are the main crops of Rabi in the district. Only 15 percent of the cultivable land is sowed due to scarcity of irrigational facilities.



3.2.2.9. Existing Industrial Status

Details on the industrial status of Jodhpur district is given in **Table 3.4.**

Table 3.4: Industrial Status of Jodhpur

S.No.	Head	Unit	Particulars
1.	Registered Industrial Unit	Nos.	21,263
2.	Total Industrial Unit	Nos.	23,319
3.	Registered Medium and Large Unit	Nos.	15
4.	Estimated Avg. No. of Daily Worker Employed in Small Scale Industries	No.	107,151
5.	Employment in Large and Medium Industries	No.	113,260
6.	No. of Industrial Area		22
7.	Turnover of Small Scale Industries		NA
8.	Turnover of Medium and Large Scale Industries		NA

3.2.3. Jaisalmer

53. District Jaisalmer is located within a rectangle lying between 26°.4' – 28°.23' north parallel and 69°.20'-72°.42' east meridians. Covering an area of 38,401 sq km, it is the largest district of Rajasthan and one of the largest in the country. The breadth (East-West) of the district is 270 km and the length (North-South) is 186 km. The length of international border attached to District is 471 Kms. The district is bounded on the north by Bikaner, on the west & south-west by Indian border, on the south by Barmer and Jodhpur, and on the east by Jodhpur and Bikaner Districts.

3.2.3.1. Physiography

54. Jaisalmer District, a part of the Great Indian Thar Desert, is sandy, dry and scorched. The terrain around, within a radius of about 60 kms is stony and rocky. The area is barren, undulating with its famous sand dunes and slopes towards the Indus valley and the Runn of Kutch. There is no perennial river in the district. The underground water level is very low. Geographically this district is spread over in 38,401 sq. kms which is one of the largest district and almost equal to the state of Kerala.

3.2.3.2. Climate

55. District has a very dry climate with very hot summer; a cold winter and sparse rains. The climate is extremely hot during summer with maximum temperature reaching up to 49.2 °C and extremely cold during winter with minimum temp. in the range of 1°C. The variation in temperature from morning to noon and the late midnight is a sudden phenomenon. The average rainfall is only 16.4 cms.

3.2.3.3. Water Resources

56. Jaisalmer district is a part of the 'Great Thar Desert'. The terrain around Jaisalmer town, within a radius of about 60 km is stony and rocky. The area is barren, undulating with its famous sand dunes. There are no rivers worth the name in the area nor are there any perennial streams in the area. Small nallas are purely seasonal and ephemeral with the result that there is lack of effective discharge in the event of heavy precipitation.

57. Ground water and Indira Gandhi Nahar Project canal are the only source of irrigation in the district. Maximum irrigated area is in Jaisalmer block. Minimum area under irrigation is in Sankara block



due to poor ground water potential. Indira Gandhi Canal enters Jaisalmer district near village Nachana and flows towards western direction. It has a command area falling to the north of the canal. At Mohangarh, the main canal ends and further westward extension of canal is known as Sagarmal Gopa Branch which takes southward bend near Ramgarh and is called Gadra Road Sub Branch. Major irrigation in the area is through Nachana Branch System, Sagarmal Gopa Branch System, Shaheed Birbal Shakha System and part of Charanawala Branch System.

3.2.3.4. Mineral Resources

58. The important minerals found in Jaisalmer district are fuller's earth, clay, gypsum, limestone, yellow and redocher and phosphorite.

3.2.3.5. Soil

59. Major Soils of the district are Desert soil, Sand dunes, Red desertic soil and Saline soil of depressions.

3.2.3.6. Ecological Resources

60. The recorded forest area of the district is 217 sq.km. which is 0.57% of the district's geographical area.

3.2.3.7. Human and Economic Development

61. In 2011, Jaisalmer had population of 669,919 of which male and female were 361,708 and 308,211 respectively, out which 580,894 is rural and 89,025 is urban population.

3.2.3.8. Existing Industrial Status:

Details on the industrial status of Jaisalmer district is given in **Table 3.5**

Table 3.5: Industrial Status of Jaisalmer

S.No.	Head	Unit	Particulars
1.	Registered Industrial Unit	Nos.	225
2.	Total Industrial Unit	Nos.	4,242
3.	Numbers Of Medium and Large Unit	Nos.	Nil
4.	Employment Generated In MSMEs	Nos.	11,622
5.	Employment in Large And Medium Industries	Nos.	Nil
6.	No. of Industrial Area	Nos.	4
7.	Turnover of MSMEs	In Lacs	N.A.
8.	Turnover of Medium and Large Scale Industries	In Lacs	Nil

3.2.4. Bikaner

62. Bikaner district is located between 27°11' to 29°03' North latitude and 71°54' to 74°12' East longitude in the north western part of Rajasthan covering a geographical area of about 27,244 sq.km. It is bounded by Ganganagar district on the north partly by Jaisalmer and Pakistan on the west, Churu and Hanumangarh district on the east, north-east, Nagaur and Jodhpur districts on the south and south- east respectively.



3.2.4.1. Physiography

63. Administratively, Bikaner district is a part of Bikaner division. The district is further divided into four tehsils- (1) Bikaner, (2) Lunkaransar, (3) Kolayat and (4) Nokha. The above four tehsils are also the panchayat samities of the district. The major part of the district comprises desolate and dreary regions which forms a part of the great Indian desert of Thar. There are two natural division of district namely:- (i) Northern and Western desert and (ii) Southern and eastern semi desert. At many places one finds shifting sand dunes of varying heights ranging from 6 to 30 metre.

3.2.4.2. Climate

64. The district has a dry climate with large variation of temperatures and scanty rainfall. Hot wind blows in summer, sweeping away and creating new sand dunes. Winters are severe and sometimes touches freezing point. The average maximum temperature is 48°C and minimum up to 2°C and the mean temperature is 25°C. The normal annual rainfall in the district is 263.7 mm.

3.2.4.3. Water Resources

65. There are no hills, rivers or any stream of significance. Small ephemeral streams flow in the vicinity of Kolayat, Gajner and Gura. Natural inland depression which retains some water during the summer is located near Lunkaransar, Kolayat, Jamsar and Nal. Construction of wells in the western part has led to activation of the stable dune field to a large extent. The migrating sand is however threatening the canals and roads.

3.2.4.4. Mineral Resources

66. Almost entire district is devoid of rock outcrops except near Kolayat and at a few places in the south of Nokha and Dhulmera. The district is thus a vast sandy tract. All four tehsils except Kolayat, are covered with sand. Rocks locally known as 'Magra', are found in the parts of Kolayat tehsil. In the 'Magra' area various types of sand stone, clay and limestone are found at various depths. Fuller earth (Multani mitti), lignite, gypsum, while clay, yellow ochre and grit are important economic minerals. Gypsum bed upto 30 metre thick and of the best quality available in India is found in Jamser village in Bikaner tehsil.

3.2.4.5. Soil

67. Dunny areas are light pale brown to brown, very deep, fine sand to loamy fine sand and devoid of any pedogenic manifestation except weak segregation of alkaline earth carbonates. In associated plains and interdunal areas occur light yellowish brown to brown, loamy fine sand, very weakly blocky, non-calcareous sub soil followed by a weak to moderately developed calcic/cambic horizon and are classified accordingly as calcids/cambids.

3.2.4.6. Ecological Resources

68. The recorded forest area of the district is 208 sq.km. which is 0.76 % of the district's geographical area. The vegetation of Bikaner district falls under the broad natural division of the tropical forest but due to extremely low rainfall and extremes of temperature, there is high evaporation and loss of moisture converting the district into a typical arid tract. However, where the moisture accumulates to some extent during rains, a few scattered stunted trees are found.



3.2.4.7. Human and Economic Development

69. In 2011, Bikaner had population of 2,363,937 of which male and female were 1,240,801 and 1,123,136 respectively, out which 1,563,553 is rural and 800,384 is urban population.

3.2.4.8. Existing Industrial Status:

70. The Bikaner district has the following industries located:

- Registered Industrial unit: 12396 nos.
- Registered Large/medium scale units: 6 nos.
- Estimated Avg. No. of Daily Worker Employed in MSME's: 50292 Nos.
- Employment In Large and Medium Industries: 14 Nos
- Turnover of Small Scale Ind.: 18167 Lakhs
Turnover of Medium and Large Scale Industries: 12379 Lakhs

3.3. Other Features

3.3.1. Households Details

71. Total Households in Rajasthan stands at 12,711,146 of which 9,494,903 (74.70%) households belong to rural area and 3,216,243 (25.30%) households belong to urban area. District Bikaner is having the highest percentage of urban households which is 36.36% of the total households and the highest rural households are in the district of Jaisalmer which is 85.71% of total households. Details are given in **Table 3.6**.

Table 3.6: Details on Households

Name/Particulars	Total households	Total (Rural)	Total(Urban)	Percentage(Rural)	Percentage (Urban)
Rajasthan	12,711,146	9,494,903	3,216,243	74.70	25.30
Bikaner	384,944	244,971	139,973	63.64	36.36
Jodhpur	649,013	414,223	234,790	63.82	36.18
Jaisalmer	117,171	100,427	16,744	85.71	14.29

Source: Census of India, 2011

3.3.2. Demography

72. Total Population in Rajasthan stands at 68,548,437 of which 51,500,352 (75.13%) population belongs to rural area and 17,048,085 (24.87%) population belongs to urban area. District Jodhpur having the highest percentage of urban population which is 34.30% of the total population and the highest rural population is in district of Jaisalmer which is 86.71% of total district population. Details are given in **table 3.7**.

Table 3.7: Details on Total Population

Name/Particulars	Total Population	Total (Rural)	Total (Urban)	Percentage (Rural)	Percentage (Urban)
Rajasthan	68,548,437	51,500,352	17,048,085	75.13	24.87
Bikaner	2,363,937	1,563,553	800,384	66.14	33.86
Jodhpur	3,687,165	2,422,551	1,264,614	65.70	34.30
Jaisalmer	669,919	580,894	89,025	86.71	13.29

Source: Census of India, 2011



3.3.3. Male and Female Population

73. Total Population in Rajasthan stands at 68,548,437 of which male population stands at 35,550,997 (51.86%) and female population stands at 32,997,440 (48.14%). District Jodhpur having the highest percentage of female population which is 47.82% of the total population and the highest male population is in the district of Jaisalmer which is 53.99% of total population. Details are given in **table 3.8**.

Table 3.8: Details on Male/ Female Population

Name/Particulars	Total Population	Total Male	Total Female	Percentage (Male)	Percentage (Female)	Sex Ratio
Rajasthan	68,548,437	35,550,997	32,997,440	51.86	48.14	928
Bikaner	2,363,937	1,240,801	1,123,136	52.49	47.51	905
Jodhpur	3,687,165	1,923,928	1,763,237	52.18	47.82	916
Jaisalmer	669,919	361,708	308,211	53.99	46.01	852

Source: Census of India, 2011

3.3.4. Scheduled Caste (SC) and Scheduled Tribe (ST) Population

74. Total Population in Rajasthan stands at 68,548,437 of which Scheduled Caste (SC) population stands at 12,221,593 (17.83%) and Scheduled Tribe (ST) population stands at 9,238,534 (13.48%). District Jaisalmer having the highest percentage of ST population which is 6.33% of the total population and the highest number of SC population is in the district of Bikaner which is 20.88% of total population. Details are given in **table 3.9**. This is just the district profile about the scheduled caste and scheduled tribe population; however, the Project will not have any adverse impact on scheduled caste/scheduled tribe population.

Table 3.9: Details on Percentage SC/ST

Name/Particulars	Total Population	Total SC Population	Percentage of SC Population	Total ST Population	Percentage of ST Population
Rajasthan	68,548,437	12,221,593	17.83	9,238,534	13.48
Bikaner	2,363,937	493,646	20.88	7,779	0.33
Jodhpur	3,687,165	608,024	16.49	118,924	3.23
Jaisalmer	669,919	99,134	14.80	42,429	6.33

Source: Census of India, 2011

3.3.5. Male and Female Population among the Scheduled Caste

75. Total SC Population in Rajasthan stands at 12,221,593 out of which male population of scheduled caste (SC) stands at 6,355,564 (52.00%) and female population of scheduled caste (SC) stands at 5,866,029 (48.00%). Jodhpur district is having the highest percentage of SC female population at 48.16% and Jaisalmer district is having the highest SC male population at 53.24%. Details are given in **table 3.10**.

Table 3.10: Male and Female Population among SC

Name/Particulars	Total Population (SC)	Total Male (SC)	Total Female (SC)	Percentage SC (Male)	Percentage SC (Female)
Rajasthan	12,221,593	6,355,564	5,866,029	52.00	48.00
Bikaner	493,646	259,532	234,114	52.57	47.43
Jodhpur	608,024	315,199	292,825	51.84	48.16
Jaisalmer	99,134	52,776	46,358	53.24	46.76

Source: Census of India, 2011



3.3.6. Male and Female Population among the Scheduled Tribe

76. Total ST Population in Rajasthan stands at 9,238,534 of which male population of scheduled tribe (ST) stands at 4,742,943 (51.34%) and female population of ST stands at 4,495,591 (48.66%). Bikaner District is having the highest percentage of ST male population at 54.08% and Jodhpur District is having the highest ST female population at 47.89%. Details are given in **table 3.11**.

Table 3.11: Male and Female Population among ST

Name/Particulars	Total Population (ST)	Total Male (ST)	Total Female (ST)	Percentage ST (Male)	Percentage ST (Female)
Rajasthan	9,238,534	4,742,943	4,495,591	51.34	48.66
Bikaner	7,779	4,207	3,572	54.08	45.92
Jodhpur	118,924	61,969	56,955	52.11	47.89
Jaisalmer	42,429	22,497	19,932	53.02	46.98

Source: Census of India, 2011

3.3.7. Literacy

77. Total Population in Rajasthan stands at 68,548,437 out of which total literate population stands at 38,275,282 (55.84%) and total illiterate population stands at 30,273,155 (44.16%). District Jodhpur having the highest percentage of literate population which is 55.84% of the total population and the highest number of illiterate population is in the district of Jaisalmer which is 53.93% of total population. Details are given in **table 3.12**.

Table 3.12: Literate and Illiterate Population

Name/Particulars	Total Population	Total Literate	Percentage of Literate	Total illiterate	Percentage of illiterate
Rajasthan	68,548,437	38,275,282	55.84	30,273,155	44.16
Bikaner	2,363,937	1,278,801	54.10	1,085,136	45.90
Jodhpur	3,687,165	2,031,532	55.10	1,655,633	44.90
Jaisalmer	669,919	308,653	46.07	361,266	53.93

Source: Census of India, 2011

3.3.8. Literacy among Male and Female

78. Total literate population in Rajasthan stands at 38,275,282 out of which total male literate population stands at 23,688,412 (61.89%) and Total female literate population stands at 14,586,870 (38.11%). District Jaisalmer is having the highest percentage of literate male population which is 68.71% of the total population and the highest literate female population is in the district of Bikaner which is 38.82% of total population. Details are given in **table 3.13**.

Table 3.13: Male and Female Literacy

Name/Particulars	Total Population (Literate)	Total Male(Literate)	Total Female(Literate)	Percentage (Male)	Percentage (Female)
Rajasthan	38,275,282	23,688,412	14,586,870	61.89	38.11
Bikaner	1,278,801	782,399	496,402	61.18	38.82
Jodhpur	2,031,532	1,265,753	765,779	62.31	37.69
Jaisalmer	308,653	210,415	98,238	68.17	31.83

Source: Census of India, 2011



3.3.9. Illiteracy among Male and Female

79. Total illiterate Population in Rajasthan stands at 30,273,155 out of which total male illiterate population stands at 11,862,585 (39.19%) and total female illiterate population stands at 18,410,570 (60.81%). District Bikaner is having the highest percentage of illiterate male population which is 42.24% of the total population and the highest illiterate female population is in the district of Jodhpur which is 60.25% of total population. Details are given in **table 3.14**.

Table 3.14: Male and Female Illiteracy

Name/Particulars	Total Population (Illiterate)	Total Male (Illiterate)	Total Female (Illiterate)	Percentage (Male)	Percentage (Female)
Rajasthan	30,273,155	11,862,585	18,410,570	39.19	60.81
Bikaner	1,085,136	458,402	626,734	42.24	57.76
Jodhpur	1,655,633	658,175	997,458	39.75	60.25
Jaisalmer	361,266	151,293	209,973	41.88	58.12

Source: Census of India, 2011

3.3.10. Total Workers (Male and Female)

80. Total population into work in Rajasthan stands at 29,886,255 of which total Male (work) population stands at 18,297,076 (61.22%) and total female (Work) population stands at 11,589,179 (38.78%). District Jodhpur having the highest percentage of male (work) population which is 64.78% of the total population and the highest number of female (Work) is in the district of Jaisalmer which is 36.81% of total population. Details are given in **table 3.15**.

81.

Table 3.15: Details on Workers

Name/Particulars	Total Population (Work)	Total Male (Work)	Total Female (Work)	Percentage (Male)	Percentage (Female)
Rajasthan	29,886,255	18,297,076	11,589,179	61.22	38.78
Bikaner	986,208	640,572	345,636	64.95	35.05
Jodhpur	1,489,741	965,103	524,638	64.78	35.22
Jaisalmer	288,903	182,565	106,338	63.19	36.81

Source: Census of India, 2011

3.3.11. Total Non-Workers (Male and Female)

82. Total Population Non-Work in Rajasthan stands at 38,662,182 of which total male (non-work) population stands at 17,253,921 (44.63%) and total female (non-Work) population stands at 21,408,261 (55.37%). District Jaisalmer having the highest percentage of male (non-work) population which is 47.02% of the total population and the highest female (non-Work) is in the district of Jodhpur which is 56.37% of total population. Details are given in **table 3.16**.

83.

Table 3.16: Details on Non Workers

Name/Particulars	Total Population (Non-Work)	Total Male (Non-Work)	Total Female (Non-Work)	Percentage (Male)	Percentage (Female)
Rajasthan	38,662,182	17,253,921	21,408,261	44.63	55.37
Bikaner	1,377,729	600,229	777,500	43.57	56.43
Jodhpur	2,197,424	958,825	1,238,599	43.63	56.37
Jaisalmer	381,016	179,143	201,873	47.02	52.98

Source: Census of India, 2011



IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

4.1. Consultations

84. Public participation and community consultations have been taken up as an integral part of the project's social and environmental assessment process. Consultation was used as a tool to inform the people about the project. Public consultations were carried out in various locations in the project areas with the objectives of making people aware of the project. Public consultation/information is an integral part of the project implementation. Public is informed about the project at every stage of execution. During survey also POWERGRID's site officials meet people and inform them about the routing of transmission lines. During the construction, every individual, on whose land tower is erected and people affected by ROW, are consulted. A notice is also issued to APs after the detailed/ check survey and finalization of tower location during the construction. Public consultation using different technique like Public Meeting, Small Group Meeting, informal Meeting as per Environmental Social Policy & Procedures of POWERGRID (ESPP) shall be carried out during different activities of project cycle. During such consultation the public is informed about the project in general and in particular about the following:

- Complete project plan (i.e. its route and terminating point and substations, if any, in between);
- POWERGRID design standards in relation to approved international standards;
- health impacts in relation to Electro Magnetic Field (EMF);
- measures taken to avoid public utilities such as school, hospitals, etc.;
- other impacts associated with transmission lines and POWERGRID's approach to minimizing and solving them;
- Temporary land acquisition details, proposed compensation packages in line with POWERGRID's policy;
- Trees and crop compensation and its process.
- Any other compensation for any damages.

85. During walkover and preliminary survey following consultation (**table 4.1**) with the villagers and public has already taken place:

Table 4.1: Details on Consultations

Transmission Line	Date of meeting	No. of villagers who attended	Name of Village	Remarks
765 kV D/c Bhadla (PG)- Bikaner (PG) line	04.06.2016	15	Kawani	Village Panchayat representatives, farmers, teachers and others attended the meeting. Compensation for Crops/trees were main concerns which were clarified during meeting.
	04.06.2016	11	Bithnok	
	04.06.2016	11	Girajsar	
	04.06.2016	13	Naukh	
	05.06.2016	08	Bhuraj	
400 kV D/c Bhadla (PG) – Bhadla (RVPN) (Quad) line	05.06.2016	08	Bhuraj	

86. Details of public consultation are enclosed as Annexure-3.



4.2. Summary of Public Consultation held

87. There were altogether 5 public consultations and informal group meetings held in Jun'16 during preliminary survey/investigations of the entire the routes of transmission lines in Rajasthan. During consultations/interaction processes with people of the localized areas POWERGRID field staffs explained benefit of the project, impacts of transmission line, payment of compensation for damaged of crops, trees, huts etc as per Indian Electricity Act, 2003 and Telegraph Act, 1885 and measures to avoid public utilities such as schools, hospital etc. People more or less welcomed the construction of the proposed project. Likely affected people (APs) requested for timely payment of compensation towards crops etc if damaged during construction activities at the market rate. Their queries were replied to satisfaction and it was assured that compensation would be paid in time after Revenue department fixed/award the amount.

88. Besides above, the following queries were also raised/asked by the people of the villages during Public consultation and informal group meetings: –

- How the compensation for crops will be decided?
- What proof will we have for crop damages?
- Whether crop damage below the tower/ line would be compensated or not?
- Whether huts or any damage if coming under corridor would be compensated or not?
- Whether tree damage below the tower/ line would be compensated or not?
- In case tower is constructed on Gram Panchayat Land?
- Would we be benefited through this particular line?

89. POWERGRID field staffs explained above questions as follows:

- Compensation shall be assessed by Revenue dept. based on the yield and market cost of crop at the request and initiative of POWERGRID.
- At the time of crop damages, a joint measurement of the affected area will be carried out with the affected person and compensation notice shall be filled containing details of affected person, name of line, tower location number, khasra no, area and type crop damaged during construction activity which will be jointly certified by POWERGRID official and affected person. The original notice will be send to tehsil for calculation of compensation and a copy of the same shall be provided to affected person.
- Any types of crop damages during construction, compensation towards the extent of damages etc. will be paid to the crop owner by POWERGRID after certification of Gram Pradhan/ tehsil. Any type of damages occur during construction, compensation towards the extent of damages etc. are to be assessed by Revenue dept. at the request and initiative of POWERGRID and will be borne/ compensated by POWERGRID.
- During survey, POWERGRID tries to route the line in such a manner that minimum trees are coming in RoW. Compensation for tree damages is paid to the tree owners after certification by tehsil/ forest dept.
- In case of Panchayat Land, compensation for damage will be paid to gram panchayat as per rules.
- Construction of the line would not only benefit you but also the entire nation. POWERGRID will transmit the electricity to State Electricity Boards (SEB) and villagers will be provided electricity by SEBs which will lead to development of the area.



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

90. The process of such consultation is to be continued during project implementation and even during O&M stage. The progress and proposed plan for Public consultation is described in Table 4.2:

Table 4.2: Plan for Future Consultations

S. No.	Activity	Technique	Schedule
1.	Detailed/Check survey	Public Meeting at different places (20-50 Km) en-route final route alignment of line	Public meeting during 2016 (Q2) to 2018 (Q3).
2.	Construction Phase	Localized group meeting, Pamphlet/ Information brochures, Public display etc.	During entire construction period.
3.	O&M Phase	Information brochures, Operating field offices, Response to public enquiries, Press release etc.	Continuous process as and when required.

91. Consultations will continue as per ESPP and the Action Plan for Safeguards.

4.4. Information Disclosure

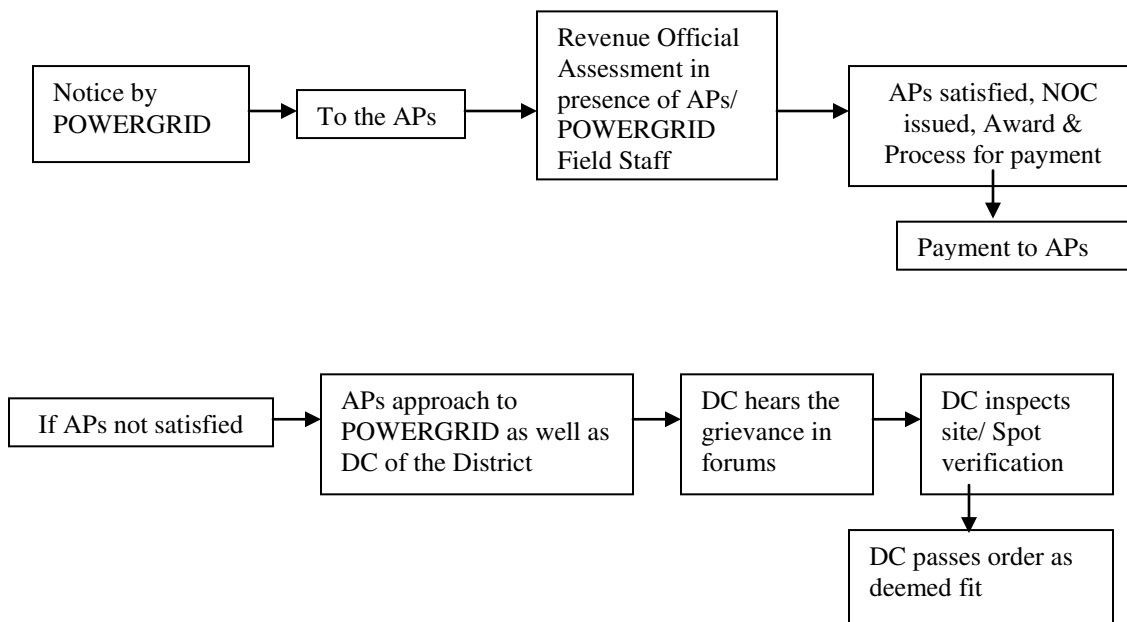
92. The draft/summary CPTD will be disclosed by the POWERGRID to the affected households and other stakeholders by placing it on website for review and comments on the policy in general and adequacy of the mitigation measures in particular. POWERGRID site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. A notice is also issued to APs after the detailed/ check survey and finalization of tower location during the construction. Affected persons also visit site/construction offices of POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix will also be made available to public through POWERGRID's construction offices in Hindi & English.. The collection of comments will take place after one month of the disclosure of the CPTD, followed by the compilation of the comments and responses received. Subsequently, the POWERGRID will organize further public consultation meetings with the stakeholders to share the views of public on the Plan for all possible clarifications. The feedback from the consultation will be reviewed and incorporated in the revised and final CPTD. The consultation process will continue throughout the project implementation period. POWERGRID will disclose revisions of the CPTD and updates if any, on its website and provide relevant information of monitoring reports to affected people and other stakeholders. This is to be done in a timely manner and in English and Hindi.



93. V. GRIEVANCE REDRESS MECHANISMS

94. Grievance redressal is in built in the process of compensation because after the notice the revenue officials assess the damages based on actual site condition and the version of land owner. After the preliminary assessment owner is given a chance to substantiate the claim if he is not satisfied with the assessment. If the owner is not satisfied he/she is allowed to access the higher authority for any grievance towards compensation that is generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector (DC)/ its authorised representative also provides forum for raising the grievance towards any irregularity/complain. Apart from this, POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. All efforts shall be made to redress/decision on the complaints within 30 to 45 days maximum. POWERGRID will develop, improve, and maintain recording and tracking systems for GRM as per the Action Plan for Safeguards. The proposed mechanism does not impede access to the country's judicial or administrative remedies. Details are depicted in Figure-1:

Figure-1: Grievance Redress Mechanism





VI. LEGAL FRAMEWORK

6.1. Overview

95. The CPTD is based on the ESPP and the Action Plan for Safeguards as well as on the Borrower's domestic policy instruments and laws. In India, compensation for land acquisition (LA) and resettlement assistance for project affected persons/families is directed by the National law The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (hereafter RFCT in LARR, 2013), effective from 1 January 2014. Being a transmission project, the relevant national laws applicable for this project are (i) the Electricity Act, 2003 and (ii) the Indian Telegraph Act, 1885 and POWERGRID's ESPP. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Government of India/ State Govt, ESPP as well as the Action Plan for Safeguards.

6.2 ADB'S Safeguard Policy Statement (SPS), 2009⁹

96. ADB has adopted Safeguard Policy Statement (SPS) in 2009 including safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the Involuntary Resettlement Safeguard policy is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

The involuntary resettlement safeguards cover physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The three important elements of ADB's SPS (2009) are: (i) compensation at replacement cost for lost assets, livelihood, and income prior to displacement; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. The SPS gives special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions.

6.3. Compensation

97. Transmission line route involves forest area and non forest area. Forest area is avoided while routing of transmission line. As per prevailing law, land below transmission line or for tower foundation is not acquired. POWERGRID pay compensation for damages as per act. Impacts on agriculture land are restricted mainly to the construction phase.

6.4. Statutory Requirements

98. Transmission lines are constructed under the ambit of Electricity Act, 2003. The provisions stipulated in section 67-68 of the Electricity Act, 2003 read with section 10 & 16 of the Indian Telegraph Act, 1885 governs the compensation as POWERGRID has been vested with the powers of Telegraph Authority vide MOP's Gazette Notification dated 24.12.03 under sec 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 Section 10 b), POWERGRID is not authorized to acquire

⁹ The safeguard requirements of ADB vis-s-vis POWERGRID's ESPP have been analyzed in detailed for use of Country Safeguards System (CSS) under ADB's SPS' 2009 and an action plan has been drawn to make it fully compliant under CSS which is enclosed as Annexure-5.



any land hence land under tower is not acquired. However, compensation for all damages are paid to the individual land owner as per the provision of Section-10 d) of Indian Telegraph Act, 1885.

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

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

Quote:

Section 67 (3-5):

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

Section 68 (5 & 6):

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

Unquote.

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

Quote:

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

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



to in clause (c), shall pay full compensation to all persons interested for any damage sustained by them by reason of the exercise of those powers.

Unquote.

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

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

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

101. Ministry of Power (MoP) vide its order No. 3/7/2015-Trans dated 15th April'15 constituted a Committee comprising of representatives of various State Govt., MoP, Central Electricity Authority (CEA) & POWERGRID under the chairmanship of Special Secretary, MoP to analyze the issues relating to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this account. Based on recommendation of the Committee, Ministry of Power, Govt. of India vide its notification dated 15thOct'15 (Enclosed as **Annexure-4**) has issued guidelines for payment of compensation for damages in regard to RoW. The said compensation is payable to all affected farmers/land owners in addition to normal tree and crop damage compensation once it is adopted by respective states. Thus, compensations are made for following:

- i) Tower base: Compensation @ 85% of land value as determined by DM or any other authority based on Circle rate/ Guideline value/ Stamp Act for tower base area (between four legs).
- ii) Line corridor: Diminution of land value in the RoW would be decided by States as per categorization/type of land in different places of State subject to maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act.

102. Once the above guidelines are adopted by State of Rajasthan compensation shall be paid as per the norms of said guidelines.

6.4.3. POWERGRID's ESPP, 2009

103. To address the environmental and social issues related to its power transmission projects, POWERGRID has developed its corporate environmental and social policy and procedures (ESPP) in 1998 based on the principles of avoidance, minimization, and mitigation. The ESPP had been updated and revised in 2009 consistent with the World Bank policy of Use of Country System policy, and applicable laws, legislation and guidelines of Gol. This is now referred to by POWERGRID as the ESPP 2009.

104. ESPP 2009 outlines POWERGRID's approach and commitment in dealing with the environmental and social issues relating to its transmission projects, lays down the management procedures and protocols for the purpose that includes the framework for identification, assessment, and management of environmental and social concerns at both organizational and project levels.

105. Specifically on social, the following criteria and approach are considered in the ESPP:



- (i) Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance.
- (ii) Take due care of Project Affected Persons (PAP).
- (iii) Involve affected people from inception stage to operation and maintenance.
- (iv) Consult affected people in issues of ROWs, land acquisition or loss of livelihood.
- (v) Encourage consultation with communities in identifying environmental and social implications of projects.
- (vi) Guarantee entitlements and compensation to affected people as per its R&R policy.
- (vii) Share information with local communities about environmental and social implications.
- (viii) Always maintain highest standards of health and safety and adequately compensate affected persons in case of any eventuality.

POWERGRID's social entitlements within its Resettlement and Rehabilitation (R&R) framework are varied and include different types of compensation packages. Temporary damages will occur during construction of transmission lines. The R&R framework is applicable in case of permanent land acquisition and not for temporary damages.

106. The Action Plan for Safeguards agreed for full compliance during the CSS equivalent (**Annexure-5**).

6.5. Basic Principles for the Project

107. The basic principles adopted for the Project are:

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

108. Additionally, the issues related to the Right of Way (RoW) for the transmission lines will be dealt with proper care especially for the temporary loss. For the loss of crops and trees due to construction of



overhead lines, cash compensation payable by cheque will be provided during construction works. The EA will provide cash compensation (by cheque) to the APs for the temporary loss of crop and loss of trees if occurred, during the time of maintenance and repair.

6.6. Cut-off- Date

109. The impacts are temporary in nature in terms of loss of crops etc., which will occur during the construction. The compensation will be paid parallelly with construction activities of transmission lines as per assessment of actual damage. A prior notice is served after the detailed/ check survey and finalization of tower location during the construction to the land owners informing that the proposed transmission line is being routed through the property of the individual. 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. This serves as a record for identifying the actual APs and the date of issuance of this notice can be treated as cut-off-date for identification and assessment of damages.



VII. ENTITLEMENTS, ASSISTANCE AND BENEFITS

7.1. Entitlements

110. APs will be entitled for compensation for temporary damages to crops/trees/structures etc as per the Entitlement Matrix given in **table 7.1**. The Land Acquisition Act (LAA) will be applicable for the compulsory acquisition of land. They will also receive 'rehabilitation assistance' if their land is permanently acquired, their income source is adversely affected, their homes are fully or partially affected, or other properties such as commercial structures or agricultural structures, crops, trees, and other facilities or access to properties are damaged or reduced because of the Project. Lack of legal documents of their customary rights of occupancy or land titles shall not affect their eligibility for compensation. In the instant case, there is no involuntary land acquisition is involved, only temporary damage will occur during construction of transmission lines for which compensation is paid as per relevant norms. Compensation towards temporary damages to all eligible APs including non-title holders is paid as per the assessment and Entitlement Matrix.

111. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. One time lumpsum assistance to vulnerable households on recommendation of State Authority.

7.2. Entitlement Matrix

112. An Entitlement Matrix for the subprojects is given in **Table 7.1**.



Table 7.1: Entitlement Matrix

SN	TYPE OF ISSUE/IMPACT	BENEFICIARY	ENTITLEMENT OPTIONS
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper/ leaseholder ¹⁰	Only the cultivator ¹¹ will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs ¹²	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		
	a) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below
	b) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
6	Impacts on vulnerable APs	Vulnerable APs ¹³	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under CSR activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate (#)
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate (#)

Note: (#): MoP issued guideline on 15.10.15 for payment of compensation towards damage in regard to RoW. Implementation is subject to acceptance by State Govt of Rajasthan.

¹⁰This may include non titled APs

¹¹Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves

¹² Titled and Non-titled

¹³Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.



7.3. Procedure of Tree/crop compensation

113. In exercise of the powers conferred by section 164 of the Electricity Act, 2003, Ministry of Power vide Gazette notification dated Dec 24, 2003 has authorized POWERGRID to exercise all the power vested in the Telegraph Authority under part-III of the Indian Telegraph Act, 1885, to place and maintain transmission lines under over along or across and posts in or upon, any immovable property. The provisions of same act in Section 10 (d) stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, POWERGRID pays compensation to land owners towards damages if any to tree, crop etc. during implementation of transmission project as well as during operation and maintenance phase. The procedure followed for such compensation is as follows:

114. 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. All efforts are also taken to minimize the crop damage to the extent possible in such cases. As regards trees coming in the Right of Way (ROW) following procedure is adopted for enumeration:

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

115. A prior notice is served to the land owners informing that the proposed transmission line is being routed through the property of the individual. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops inevitably 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 issued 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.

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

117. The Chitahs (Revenue record) shall contain the land owner details type of tree/crop, its present age, variety, yielding pattern etc. and the same is prepared at site in the presence of the land owner. These Chitahs are further compiled and a random verification is conducted by the concerned District Collector or his authorized representative in order to ascertain the assessment carried out by the revenue office is genuine and correct. After this process the District collector issues a tree cutting permit to Power Grid Corporation to enable removal / damage to the standing tree/crop identified in the line corridor.

118. Once the tree/crop is removed / damaged, POWERGRID shall issue a tree cutting/crop



damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is prepared for this purpose. The detailed Valuation statement is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors. The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 0.45 to 0.7 m. a small square area of about 0.2 sq.m. to 0.49 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 765 kV D/C & 400KV D/C transmission tower is approximately 1 sq.m. of land. This impact on agriculture land is negligible. However, while assessing the compensation for damages, POWERGRID considers larger area during calculation of damages (approximately 50X50 m= 2500 sq.m.) compared to an actual area of about (40X40 m=1600 sq.m.) which allows for a buffer. This buffer payment adequately compensates for permanent inability to crop the small areas of land occupied by the tower footings, and this is explained to affected persons during consultation/measurement survey. A sample proforma for compensation is enclosed as **Annexure-6**.

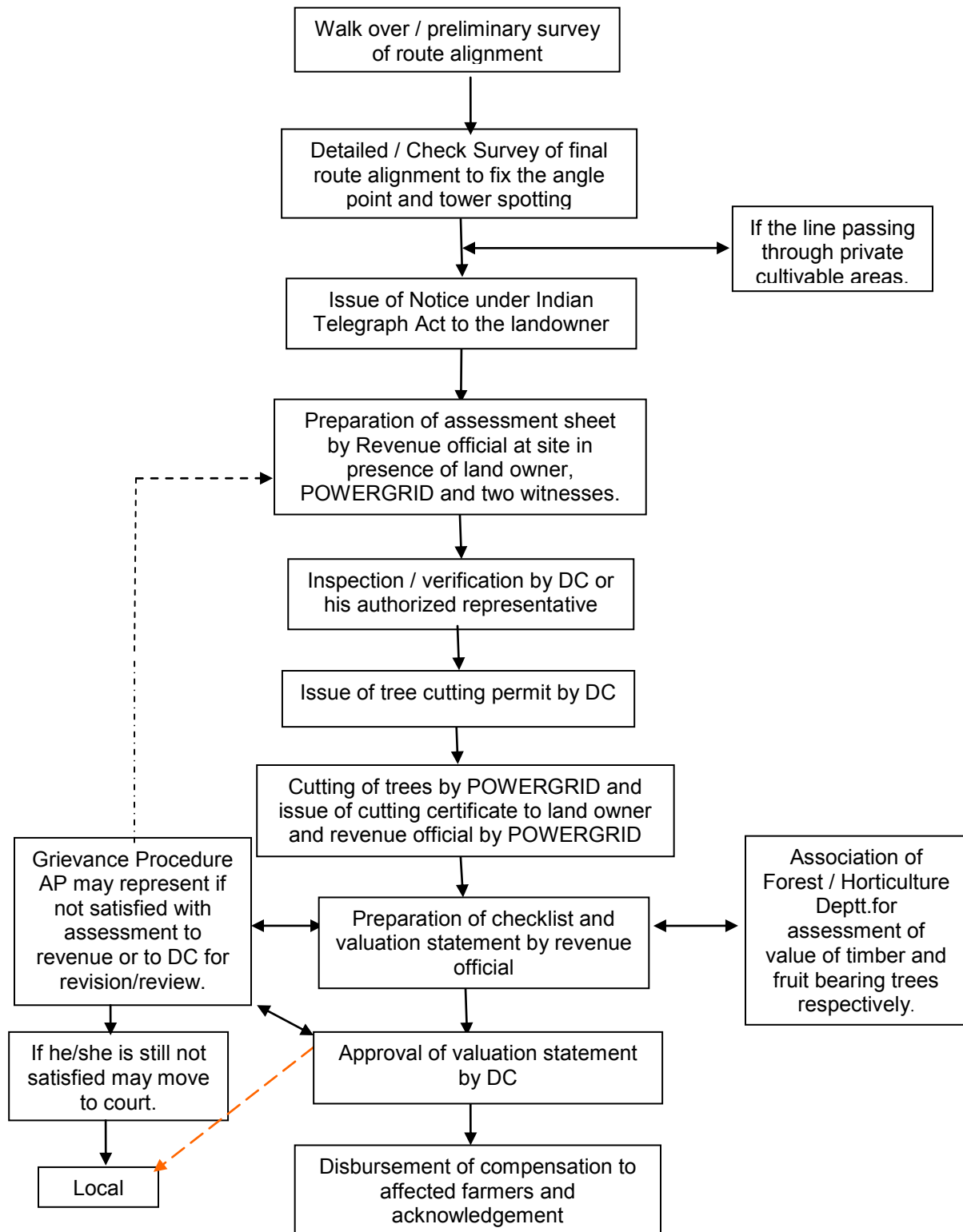
119. On approval of compensation, the revenue officer shall further intimate the amount payable to the different land owners and POWERGRID arranges the payment by way of Demand Draft/cheques to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses.

120. For other damages, State Govt. Revenue Department assess the cost of damage. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ *Sarpanch* and respective acknowledgements are obtained and POWERGRID pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms.

121. Process of tree/crop compensation is depicted in **Figure-2**.



Figure-2: Tree / Crop Compensation Process





VIII. COMPENSATION FOR STRUCTURE

122. No physical displacement is envisaged in the proposed project. Major damages in transmission line are not envisaged due to flexibility of routing of transmission line. Transmission line construction is done mainly in the lean period to reduce damages to crops. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as per entitlement matrix of CPTD shall be provided (**Table 7.1**). In the present project, the routes of the proposed transmission lines do not involve any structure. In case any structure is encountered, the compensation for shifting the huts will be paid to the APs as assessed by the State Govt. A notice for damage is issued to APs and the joint measurement by POWERGRID and APs is to be done and verified by revenue official for actual damages. Hence, Compensation is paid parallelly with the construction activity of transmission line.

IX. BUDGET

123. The CPTD Implementation cost estimate for the project includes eligible compensation for loss of crops, trees, and support cost for implementation of CPTD, monitoring, other administrative cost etc. A budget provision has been made for compensation for Tower Base (85% of the land cost) and RoW Corridor (15% of land cost) as per MoP guidelines. Accordingly the cost has been estimated in the budget by including these provisions. However, the cost for compensation of tower base and RoW corridor shall be payable only after adoption by State of Rajasthan. This is a tentative budget which may change during the original course of implementation. The unit cost for the loss of crop has been derived from the through rapid field appraisal and based on POWERGRID's old experience of similar project implementation. Contingency provision equivalent to 3% of the total cost has also been made to accommodate any variations from this estimate. Sufficient Budget has been provided to cover all compensation towards crops losses, other damages etc., As per POWERGRID's previous projects and strategy for minimization of impacts an average of 45% of the affected land is expected for compensation for crops and other damages. Structure will be avoided to the extent possible. However, may any structure be affected. Budget provisions are available to cover all damages as per entitlement matrix. In any case no residential structure shall be affected. Therefore, provisions of budget expenditure for implementation of CPTD for the subprojects considering corridor of 40 meter maximum (though affected part of corridor for compensation of crops/other damages would be about 45% as per POWERGRID's projects previous practices). The total indicative cost is estimated to be INR 541.45 million equivalent to USD 8.46 million. Details are given in **Table 9.1**. The following estimated budget is part of complete project cost as on date including the counterpart financing to be met by POWERGRID sources. However, actual updation of the estimated cost shall be updated during execution.



Table 9.1: Budget

Item	Unit	Unit Cost (INRs)	Quantity	Amount (INRs)	Amount in (Million INRs)
A. Compensation					
A-1: Loss of Crops ¹⁴	Hectare	63,369	692.17	43,862,000	43.86
A-2: Loss of Trees	Numbers	15,000	3263	48,945,000	48.95
A-3: Land Compensation for Tower Base and RoW Corridor (\$)	Lump Sum			430,017,000	430.02
Sub Total-A				52,282,4000	522.82
B: Implementation Support Cost					
B-1: Man-power involved for SMP implementation & Monitoring	kilometers	10,000	185.614	1,856,140	1.86
B-2: External Monitoring if required	Lump sum			1,000,000	1.00
Sub Total- B				2,856,140	2.86
Total (A+B)				525,680,140	525.68
Contingency (3%)				15,770,404	15.77
Grand Total				541,450,544	541.45
Grand Total (USD)				8,460,164	8.46

\$: Land Compensation for Tower Base and RoW Corridor shall be paid after guidelines are adopted by State of Rajasthan.

Note:

1. Budget estimate is only indicative
2. POWERGRID shall also implement need based Community Development Work under Corporate Social Responsibility (CSR) during/ after implementation of the project.

Land Compensation for Tower Base and RoW Corridor (As per MoP Guidelines)

Name of Line	Line Length (Kms)	Area for Tower Base (Acres)	Area for RoW Corridor (Acres)	Avg Cost of Land in Lakhs (Rs./ Acre)	Total in Lakhs (Tower base @ 85% & Corrdior@15%)
765 kV D/c Bhadla (PG) – Bikaner (PG) line	162.466	67.26	2,621.39	8.9	4,008.04
400 kV D/c (Quad) Bhadla (PG) – Bhadla (RVPN) line	23.148	3.98	259.03	6.92	292.13
TOTAL	185.614	71.24	2,880.42		4,300.17

¹⁴Area Likely to be affected and considered for compensation within 40 meter width/corridor is as follows

- Affected area for Crops (129.93 Km x 40 m) = 519.72 Ha.
- Addl. area affected for Tower Foundation = 98.2 Ha
- Affected area for Trees (Pvt. Plantation- 18.562 Km x 40 m) = 74.248 Ha.
- Total Area= 692.168 ha



X. INSTITUTIONAL ARRANGEMENTS

10.1. General

124. POWERGRID will be the Executing Agency (EA) for the Project. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule. Monitoring is a continuous process for POWERGRID projects at all the stages are it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the environmental aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings are submitted to the Directors and Chairman and Managing Director of the Corporation. The progress of various on-going projects is also informed to the Board of Directors. Following is the organization support system for proper implementation and monitoring of Environmental & Social Management Plan:

10.2. Various Levels

10.2.1. Corporate Level

125. An Environmental Management Cell at corporate level was created within POWERGRID in 1992 and subsequently upgraded to an Environment Management Department (EMD) in 1993 and in 1997 it has been further upgraded to Environment & Social Management Deptt. (ESMD) by incorporating social aspect of project. Briefly, the ESMD's responsibilities are as follows:

- Advising and coordinating RHQs and Site to carry out environmental and social surveys for new projects.
- Assisting RHQs and site to finalize routes of entire power transmission line considering environmental and social factors that could arise en-route
- Help RHQs and Site to follow-up with the state forest offices and other state departments in expediting forest clearances and the land acquisition process of various ongoing and new projects
- Act as a focal point for interaction with the MoEF for expediting forest clearances and follow-ups with the Ministry of Power.
- Imparts training to POWERGRID's Regional Head Quarters (RHQs) & Site Officials on environment and social issues and their management plan.

10.2.2. Regional Level

126. At its Regional Office POWERGRID has an Environmental and Social Management cell (ESMC) to manage Environmental and Social issues and to coordinate between ESMD at the corporate level and the Construction Area Office (CAO) of site. The key functions envisaged for ESCM are:

- Advising and coordinating field offices to carry out environmental and social surveys for new projects envisaged in the Corporate Investment Plan



- Assisting the ESMD and CAOs to finalize routes of entire power transmission lines considering the environmental and social factors that could arise en-route
- To follow-up forest clearances and land acquisition processes with state forest offices and other state departments for various ongoing and new projects
- Acting as a focal point for interaction with the ESMD and CAOs on various environmental and social aspects.

10.2.3. Site Office

127. At the Construction Area office (CAO) level, POWERGRID has made the head of the site responsible for implementing the Environmental and Social aspect of project and are termed as Environmental and Social Management Team (ESMT). Key functions of the ESMT are:

- Conduct surveys on environmental and social aspects to finalize the route for the power transmission projects
- Conduct surveys for the sites to be considered for land acquisition
- Interact with the Forest Departments to make the forest proposal and follow it up for MoEF clearance.
- Interact with Revenue Authorities for land acquisition and follow it up with Authorised Agencies for implementation of Social Management Plan (SMP).
- Implementation of Environment Management Plan (EMP)/ CPTD and SMP.
- Monitoring of EMP and SMP and producing periodic reports on the same.

At site level, ESMT will be constituted for implementation and monitoring of CPTD.

128. For the instant subprojects, POWERGRID will implement the CPTD and will do the overall coordination, planning, implementation, financing and maintaining all databases, work closely with APs and other stakeholders. The database will be managed by POWERGRID through its Regional ESMC staffs by collecting input from the field staffs which may be monitored/audit by the external monitoring agency, if required. POWERGRID will ensure that local governments are involved in the plans implementation to facilitate all settlement of compensation related activities before commencing civil works. Based on regularly updated social assessment & compensation data, a central database will also be maintained by POWERGRID. Roles and responsibilities of various agencies are in **Table 10.1**.

Table 10.1: Agencies Responsible for CPTD Implementation

Activity	Agency Responsible
Implementing CPTD	Field staffs, POWERGRID
Updating the CPTD	ESMC (RHQ), POWERGRID
Review and Approval of CPTD	POWERGRID
Verification survey for identification of APs	POWERGRID field staffs & Revenue officials
Survey for identification of plots for Crop/Tree/ other damages Compensation	POWERGRID & Revenue officials
Consultation and disclosure of CPTD to APs	POWERGRID & Revenue officials
Compensation award and payment of compensation	Revenue Dept / Competent Authority
Fixing of Replace cost and assistance	Revenue Dept / Competent Authority
Payment of replacement cost compensation	POWERGRID
Takeover temporary possession of land/houses	POWERGRID and Revenue Department



Activity	Agency Responsible
Hand over temporary possession land to contractors for construction	POWERGRID
Notify construction starting date to APs	POWERGRID field staffs
Restoration of temporarily acquired land to its original state including restoration of private or common property resources	Contractors subject to monitoring by POWERGRID
Development, maintenance and updating of Compensation database	POWERGRID
Development, maintenance and updating of central database	POWERGRID
Internal monitoring	POWERGRID
External monitoring, if required	External Monitoring Agency

10.3. Staff Training on Environment and Social Issues

129. Environment and social Management Department (ESMD) in association with HRD organizes training program on Environment and Social Management (E & S M) including, Corporate Social Responsibility, ISO-14001 requirement. During FY 2014-15 and FY 2015-16, POWERGRID have been imparted training more than 900 Mandays on E & S aspects. During FY 2016-17, Training on E&S is under progress. Selected officials have also been attended The World Bank sponsored training program on R&R at different places like Hyderabad, Bangalore and Udaipur. Four officials have also been deputed to Japan for AOTS training program on Environment Management. Officials are also attended training organized by ADB. POWERGRID organized a two days training programme on ADB's safeguard requirements on 6th & 7th Aug' 2013 at Lucknow in which ADB environment & social expert also presented and informed the participants about ADB's safeguard requirements. Executives at ground levels have shown remarkable improvement in appreciating/ dealing with these issues. Apart from these, dedicated program in all other technical training program one slot is invariably provided particularly for Environmental & Social issues and it's Management.



XI. IMPLEMENTATION SCHEDULE

130. Assuming Award letter for execution of work to be placed in Sep'16 the following work Schedule is drawn for implementation of CPTD. Tentative implementation schedule for project including various sub tasks presented in **Table 11.1**.

Table 11.1 Tentative Implementation Schedule

Sl.	Activity	2016				2017				2018				2019			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1.	Initial CPTD Matrix disclosure			—													
2.	Detailed Survey				—												
3.	Public Consultation		—														
4.	Compensation Plan				—												
i)	Issue of Notice to APs				—												
ii)	Preparation of APs list				- - - - -												
iv)	List Finalization				- - - - -												
v)	Assessment by Revenue Official				- . . . -												
vi)	Assessment disclosure				- . . . -												
vii)	Compensation Payment															
5.	Civil Works				—												
6.	Review/ Activity Monitoring				—												
i)	Monthly															
ii)	Quarterly				↔ ↔ ↔ ↔ ↔												
iii)	Half yearly				↔ ↔ ↔ ↔ ↔												
iv)	Annual				↔ ↔ ↔ ↔ ↔												
7.	Grievances				—												
i)	Grievance redressal, if any															
8.	CPTD Documentation				—												
9.	Ext. Auditing, if required																



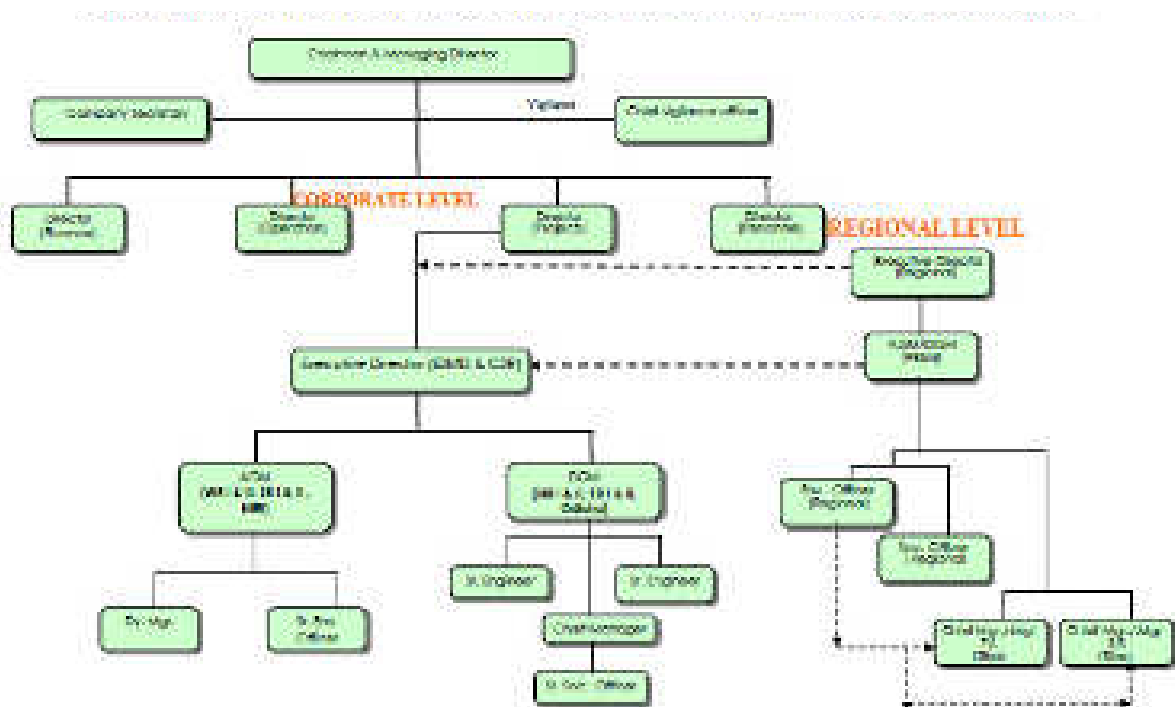
XII. MONITORING AND REPORTING

131. Monitoring will be the responsibility of POWERGRID. POWERGRID will disclose semi-annual monitoring reports on their safeguards implementation performance on POWERGRID's website and submit the reports to ADB for information and disclosure.

132. Internal monitoring will be the responsibility of POWERGRID and its internal monitoring will include: (i) administrative monitoring: daily planning, implementation, feedback and trouble shooting, individual AP file maintenance, and progress reports; (ii) socio-economic monitoring: Compensation of crops/trees or any other damages, demolition if any, salvaging materials, dates for consultations, and number of appeals placed; and (iii) post-implementation monitoring of the APs. Semi-annual monitoring reports documenting progress on implementation of CPTD and grievance redressal, will be provided by POWERGRID to ADB..

133. POWERGRID will engage the services of an independent agency/External monitoring, if required. Provisions have been made in the compensation budget component for engaging an external monitor.

134. POWERGRID is well equipped to implement and monitor its environment and social management plan including CPTD. Organizational Support Structure for monitoring of above is given in **figure-3**. Monitoring report will be submitted to ADB semi-annually be disclosed on POWERGRID's and ADB's website.



ANNEXURE-1

**(Evaluation of Alternate Route
Alignment)**

EVALUATION OF ALTERNATE ROUTE ALIGNMENT

1. Evaluation of Alternative Route Alignment of 765 kV D/c Bhadla (PG)- Bikaner (PG) line

Three different alignments were studied with the help of published data/maps and walkover survey to arrive at the most optimum route to be considered for detailed survey. The comparative details of these alternatives are shown in the following Table 1.1:

Table 1.1

S.No.	Description	Bee Line	Alternative I	Alternative II	Alternative III
1. Route Particulars					
i)	Length (km)	157.800 Kms.	162.466 Kms.	170.008 Kms.	171.066 Kms.
ii)	Terrain	Plain & Undulated	Plain & Undulated	Plain & Undulated	Plain & Undulated
2. Details					
i)	Name of District/District Detail (through which the transmission line passes)	Bikaner, Jodhpur & Jaisalmer	Bikaner, Jodhpur & Jaisalmer	Bikaner, Jodhpur & Jaisalmer	Bikaner, Jodhpur & Jaisalmer
ii)	Town in alignment (nearby)	Bhuraj, Kanasar, BhithekaGaon, Sanuragaon, Dadhuragaon, Sophara Ki Dhani, Nagrasar, Kumhar Ki Dhani, Devri Ki Dhani, Girajsar, Ganyala, Digi Ki Dhani, Govindsar, Chagre Ki Dhani, ChakMadhogarh, Samorkhi, Motawaton, Gangapura, Jhumarmal Ki Dhani, Hazarimal Ki Dhani, Khanchaman, Koramdesar, Daiyan, Bhura Ki Gol, Jamsar	Bhuraj, Kalu Ki Dhani, Dhaleri, Naukha, Sutharaon Ki Dhani, Arjun Singh Ki Dhani, Barak Ki Dhani, Baniya Ki Dhani, Kumar Ki Dhani, Girajsar, Bithnok, Kawani, Badrasar, BharuKhrian, Ganyala, Motasar, Govindsar, Tageriwala, Khichiyani, Jamsar	Bhuraj, Ismail Ki Dhani, Ajmeri Ki Dhani, Dhaleri, Campwala, Gelwa Ki Dhani, Solan Ki Dhani, Grandhi, Surli Ki Dhani, Rampura, Bithnok, Daioli Ki Dhani, Jaimalsar, Kawai, Meharsar, Jalsar, Jamsar	Bhuraj, Kalu Ki Dhani, Kanasar, BhitheKaGaor, Sanvragaon, Savra, BhajiKa Than, Bhojra Singh Ki Dhani, Pethraon Ki Dhani, Hirai Ki Dhani, Mandal, Bhatian, Mandal Chaman, ChakMadhogaon, Gura, Deh, Golari, Kotara, Daiyan, Pratap Singh Ki Dhani, Sobhasar, ChhotiKumhar Ki Dhani, Kanasar, Khara, Jalalsar & Jamsar
iii)	Forest area affected in hectare (ha)/km	12.06 ha/ 1.8 Kms.	Nil	Nil	Nil
iv)	Type of forest	RF	NA	NA	NA
v)	Density of forest	<0.3	NA	NA	NA
vi)	Houses within RoW	160	NIL	34	36
vii)	No of Towers	409	421	441	444
viii)	Affected Area for Temporary damages (Ha).	586.743	604.092	632.135	636.069
ix)	Any other relevant information	Nil	Nil	Nil	Nil
3. Compensation Cost (in INRs lakhs)					
i)	Crop(Non-Forest)	780 Lakhs	812.33 Lakhs	850.04 Lakhs	855.33 Lakhs
ii)	Forest (CA+NPV)	159.55 Lakhs	NA	NA	NA
4. Number of Crossing					
i)	Railway line	Nil	Nil	Nil	02

S.No.	Description	Bee Line	Alternative I	Alternative II	Alternative III
ii)	Power Line	07	07	10	08
iii)	River Crossing, etc.	Nil	Nil	Nil	Nil
iv)	Highway Crossing (NH/SH)	01	01	01	01
5.	Construction Problem	Route is passing through densely populated areas, villages, industrial areas etc., Difficult approach, involves 160 houses in RoW and passes within 10 Kms of Airport.	Route is passing away from villages and easily approachable and does not involve any house in RoW.	Some approach roads are Kachcha/ rural roads. Moderately difficult approach and involves 34 houses in RoW	Some approach roads are Kachcha/ rural roads. Moderately difficult approach, involves 36 houses in RoW and passes within 10 Kms of Airport.
6.	O&M Problem	O&M shall be difficult.	O&M shall be easy.	O&M shall be easy.	O&M shall be difficult.
7.	Overall Remarks	Passes through densely populated areas, villages, industrial areas etc., Difficult approach and passes within 10Kms of Airport.	Passes away from villages and Easy approach, No Houses in RoW	Moderately difficult approach and involves houses in RoW	Moderately difficult approach, involves houses in RoW and passes within 10Kms of Airport.

Reasons for Selection of Final Route

From the above comparison of the three alternatives, **Alternative-I** is the most suitable route and selected for detailed survey as it involves easy approaches to tower locations, is located away from habitated areas and does not involve any houses in RoW.

2. Evaluation of Alternative Route Alignment of 400 kV D/c Bhadla (PG) – Bhadla (RVPN) (Quad) line

Three different alignments were studied with the help of published data/maps and walkover survey to arrive at the most optimum route for detailed survey. The comparative details of these alternatives are shown in the following Table 1.2:

Table 1.2

S.No.	Description	Bee Line	Alternative I	Alternative II	Alternative III
1. Route Particulars					
i)	Length (km)	21.230 Kms.	23.148 Kms.	25.239 Kms.	24.201 Kms.
ii)	Terrain	Plain & Undulated	Plain & Undulated	Plain & Undulated	Plain & Undulated
2. Details					
i)	Name of District/District Detail (through which the transmission line passes)	Jodhpur	Jodhpur	Jodhpur	Jodhpur
ii)	Town in alignment (nearby)	Bhuraj, Motorable, Pannuwala Ki Dhani, Hazi Ki Dhani, Chuhron Ki Basti, BhadloLikho, Garmonawala, Awai	Awai, Gamanawala, Gulam Ki Dhani & Bhuraj	Awai, Laldin Ki Dhani, Taja Ki Dhani, Gulam Ki Dhani & Bhuraj	Awai, BhadloLikno, TirthKaMul, Ajeri Ki Dhani, Ismail Ki Dhani & Bhuraj
iii)	Forest area affected in hectare (ha)/km	Nil	Nil	Nil	Nil

S.No.	Description	Bee Line	Alternative I	Alternative II	Alternative III
iv)	Type of forest	NA	NA	NA	NA
v)	Density of forest	NA	NA	NA	NA
vi)	Houses within RoW	21	NIL	5	5
vii)	No of Towers	65	70	77	74
viii)	Affected Area for Temporary damages (Ha).	80.77	88.07	96.03	92.08
ix)	Any other relevant information	Nil	Nil	Nil	Nil
3. Compensation Cost (in INRs lakhs)					
i)	Crop(Non-Forest)	106.15 Lakhs	115.74 Lakhs	126.195 Lakhs	121.005 Lakhs
ii)	Forest (CA+NPV)	NA	NA	NA	NA
4. Number of Crossing					
i)	Railway line	Nil	Nil	Nil	Nil
ii)	Power Line	01	01	01	02
iii)	River Crossing, etc.	Nil	Nil	Nil	Nil
iv)	Highway Crossing (National Highway (NH)/ State Highway (SH))	Nil	Nil	Nil	Nil
5.	Construction Problem	Route is passing through densely populated areas, villages, industrial areas etc., difficult approach, involves 21 houses in RoW and passes through Solar Plant.	Route is passing away from villages and easily approachable and does not involve any house in RoW	Some approach roads are Kachcha/ rural roads. Moderately difficult approach and involves 05 houses in RoW	Some approach roads are Kachcha/ rural roads. Moderately difficult approach, involves 05 houses in RoW and passes through Solar Plant.
6.	O&M Problem	O&M shall be difficult.	O&M shall be easy.	O&M shall be easy.	O&M shall be difficult.
7.	Overall Remarks	Passes through densely populated areas, villages, industrial areas etc., Difficult approach and passes through Solar Plant	Passes away from villages and Easy approach, No Houses in RoW	Moderately difficult approach and involves houses in RoW	Moderately difficult approach and involves houses in RoW and passes through Solar Plant

Reasons for Selection of Final Route

From the above comparison of the three alternatives, **Alternative-I** is the most suitable route and selected for detailed survey as it is easily approachable to tower locations, is located away from habitated areas and does not involve any houses in RoW.

ANNEXURE-2

(Location of Substations)



765/400/220 kV Bhadla (PG) Substation



765/400 kV Bikaner Substation (PG) Extn.

ANNEXURE-3

(Details of Public Consultation)

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड
(भारत सरकार का उपक्रम)



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

400-232को.को. अपरेंट ग्राइडसर्क्यूलर राजमार्ग -11 पी.ओ. सुदीबडी बीबर राज-राज - 332001

दूरभाष: 090024 293321 ई - मेल: पावर ग्रिड कारपोरेशन लिमिटेड, को.को.

400-232को.को. Subcircle, Bhandla, NH-11, P.O. Kumbhari, Bikaner (Rajasthan) - 332001

Tel: 090024 293321, E-Mail: powergridcorpn@gmail.com

Sub: Public Consultation Program for Transmission System for Solar Parks at Bhadla, Rajasthan

Public Consultation for above mentioned transmission project has been successfully completed and information related to POWERGRID's project were furnished to people. There suggestions were received and their queries were resolved. The appropriate answers of the questions were replied to the people present in the consultation, the same is enclosed.

The details of POWERGRID's representatives who were present during public consultation:

नाम	पदनाम	हस्ताक्षर
1. संदीप जैन	अभियन्ता, पावर ग्रिड जयपुर।	
2. दिनेश चौधरी	कनि. अभियन्ता, पावर ग्रिड बादला।	
3. मनोज वर्मा	कनि. अभियन्ता, पावर ग्रिड बादला।	

QUESTIONNAIRE (All questions and answers summarised)

Sub: Public Consultation Program for Transmission System for Solar Parks at Bhadla, Rajasthan. The following questions were asked by farmers present and the corresponding answers are given below:

The following queries were raised/asked by the people of the villages during Public consultation and informal group meetings and corresponding explanations given by POWERGRID representatives: –

Q.1. How the compensation for crops will be decided?

Answer: Compensation shall be assessed by Revenue dept. based on the yield and market cost of crop at the request and initiative of POWERGRID.

Q.2. Is the survey of the line over. If yes then from which Khasra No is the line going?

Answer: Yes the survey of the line is over but it is not possible to give the Khasra No. Khasra no is only taken before the commencement of the work from the concerned farmer.

Q.3. Whether crop damage below the tower/ line would be compensated or not?

Answer: Any types of crop damages during construction, compensation towards the extent of damages etc. will be paid to the affected person by POWERGRID after certification of Gram Pradhan/ tehsil.

Q.4. What will happen if the line passes over house?

Answer: During survey of line, POWERGRID tries to avoid routing of line above houses. If the line passes above house due to certain constraints, adequate Compensation shall be paid for the house as per norms.

Q.5. If the land is in the name of two brothers, how will the compensation be given?

Answer: If the land is in name of two brothers, then name of both brothers is filled in compensation performa during certification/ verification by tehsil. After that, compensation is distributed between the brothers or it is given to one of the brothers after taking NoC on stamp paper from the other brother.

Q.6. Whether tree damage below the tower/ line would be compensated or not?

Answer: During survey, POWERGRID tries to route the line in such a manner that minimum trees are coming in RoW. Compensation for tree damages are paid to the tree owners after certification by tehsil/ forest deptt.

Q.7. In case tower is constructed on Gram Panchayat Land?

Answer: In case of Panchayat Land, compensation for damage will be paid to gram panchayat as per rules.

Q.8. Would we be benefited through this particular line?

Answer: Construction of the line would not only benefit you but also the entire nation. POWERGRID will transmit the electricity to State Electricity Boards (SEB) and villagers will be provided electricity by SEBs which will lead to development of the area.

Q.9. What proof will we have for crop damages?

Answer: At the time of crop damages, a joint measurement of the affected area will be carried out with the affected person and compensation notice shall be filled containing details of affected person, name of line, tower location number, khasra no, area and type crop damaged during construction activity which will be jointly certified by POWERGRID official and affected person. The original notice will be send to tehsil for calculation of compensation and a copy of the same shall be provided to affected person.

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उपक्रम)

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



पावर ग्रिड

100, 200 वी. पी. एन. स्टेशन रोड राजमार्ग - 11 पी. एन. सुरिणी रोड, बाराक - 712001

दूरभाष 03610 233521 ई - मेल: पावर.ग्रिड.कॉर्पोरेशन@पिगल.कॉम

100, 200 V Station, Barakha, NH-11, D. Guwahati, Assam, India - 781001

Tel: 03610233521, E-Mail: powergrid@pgrid.co.in

वषय: पावर ग्रिड द्वारा बादला (राजस्थान) में सौर ऊर्जा पार्क के अन्तर्गत बनाई जा रही

पारेषण प्रणाली के तहत जन परामर्श कार्यक्रम

उक्त विषयान्तर्गत पारेषण परियोजनाओं के निर्माण के पूर्व जन परामर्श कार्यक्रम का सफलतापूर्वक क्रियान्वयन किया गया एवं जनसमुदाय को पावर ग्रिड की परियोजनाओं के सन्बन्ध में विषय परक जानकारी दी गई एवं उनके सुझाव प्राप्त किये तथा जिज्ञासाओं का शमन किया गया। उपस्थित व्यक्तियों के सवाल के यथोचित उत्तर प्रदान किये गये जो कि अन्य विवरण के संदर्भानुसार अनुलग्नक पर संलग्न है।

जन परामर्श कार्यक्रम में उपस्थित पावर ग्रिड के सदस्यों का विवरण :-

नाम	पदनाम	हस्ताक्षर
1. संदीप जैन	अभियन्ता, पावर ग्रिड जयपुर।	
2. दिनेश चौधरी	कनि. अभियन्ता, पावर ग्रिड बादला।	
3. मनोज वर्मा	कनि. अभियन्ता, पावर ग्रिड बादला।	

[Handwritten signature]
Suresh

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भद्रादर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबरी ,सिकर, राजस्थान - 332001

दूरभाष: 09601893521, ई - मेल: पावरग्रिडसीकर@जीमेल.कोम

400/220KV Substation, Bhadhadar, NH-11, P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09601893521, E-Mail : powergridsikar@gmail.com

विषय: पावरग्रिड कृषि विभाग (संरक्षण) की सीईओ कार्क के संरक्षित क्षेत्रों का सूची बहिष्करण प्रणाली के तहत खसरा प्रामाणिक कार्यक्रम में किसानों द्वारा पूरे गह खतान से इनके उखाव:

पक्षधोलना प्रमाण: 2008/9 13/7 ISuraha-Substation Bhadhadar District

बॉलर को नाम: इंसपेक्टर, डिप्टी कमिश्नर (कृषि)

जिला: बीकानेर

प्रश्न: लाईन/साइड के नीचे जो किसानों की खसरा का नुकसान होगा, उसका क्या होगा ?

उत्तर: लाईन/साइड के नीचे जो किसानों की खसरा का नुकसान होगा, उसके इतिहास मुलाकात का अनुमति इस विभाग द्वारा, खसरा प्रामाणिककरण द्वारा खसरा अनुमति के पश्चात, फसल के मालिक को दिया जाता है।

प्रश्न: खसरा का नुकसान किस आधार पर दिया जायेगा ?

उत्तर: खसरा का नुकसान तकसीब द्वारा समायोजित जाता है जो कि इनके खेत की फसल की उपज और बालक भाव के आधार पर दिया जाता है।

प्रश्न: क्या इस साईड का सर्वे हो चुका है, यदि हाँ तो इससे नतीज के किस किस प्रकार संख्या से यह साईड जा रही है ?

उत्तर: हाँ। इस साईड का सर्वे हो चुका है परन्तु किस किस खसरा संख्या से यह साईड जा रही है, यह बताना संभव नहीं है क्योंकि कार्य करने से पूर्व सम्बंधित खेत के किसान से ही खसरा संख्या ली जाती है।

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भद्रादर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुडीबड़ी ,सीकर, राजस्थान - 332001

दूरभाष: 09601893521,, ई - मेल: पावरग्रिडसीकर@नीमेल.कोम

400/220KV Substation, Bhadhadar, NH-11,P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09601893521, E-Mail : powergridssikar@gmail.com

संज्ञक: संस्थागत कार्यवाही के अन्तर्गत के कार्य से सम्बन्धित है और इसका प्रस्ताव होगा।

व्यक्ति: उन्हें के हीवाने का कीर्तिना नहीं जानती है कि लाइन अन्तर्गत के कार्य से क्या किस्मती, फिर भी यदि किन्हीं कारणों से लाइन अन्तर्गत के कार्य से जानती है तो इसके संबंधित मुद्दों को वह अनुमानित संस्थागत कार्यवाही अन्तर्गत में प्रेषित करवाए।

Sand

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220क.वी. उपकेंद्र भद्राडराष्ट्रीय राजमार्ग -11 पी.ओ. खुरीवडी सीकर राजस्थान - 332001

दूरभाष 09001893521 ई - मेल: powergrid@powergrid.co.in

400/220KV Substation Bhadrachud, NH-11, P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E-Mail: powergrid@powergrid.co.in

परियोजना :- 765KV Double Circuit Badla-Bikaner Line

गोत का नाम कावनी, बीकानेर दिनांक 04-06-16

जन परामर्श कार्यक्रम

उपस्थित गणमान्य व्यक्तियों का विवरण :-

क्र.सं.	नाम	पता	हस्ताक्षर	अन्य विवरण
1.	अश्वनारायण जी	कावनी, बीकानेर		
2.	भूरदास जी	कावनी, बीकानेर		
3.	पुनम सिंह जी	कावनी, बीकानेर	पुनम सिंह	
4.	शेर सिंह जी	कावनी, बीकानेर	शेर सिंह जी	
5.	शुभ्र करम सिंह जी	कावनी, बीकानेर	शुभ्र करम सिंह	
6.	मदन सिंह जी	कावनी, बीकानेर	मदन सिंह	
7.	रूधा राम जी	कावनी, बीकानेर	रूधा राम	
8.	पह्लाद जी	कावनी, बीकानेर	पह्लाद	

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

40B/220के.सी. उत्कल-बिड़रवाल्दींग राजमार्ग - 11 पी.ओ. खुरीजरी निकट राजस्थान - 332001

दूरभाष: 09001893521 ई - मेल: पावरग्रिडसीकर@बीमिल.कॉम

40B/220KV Substation, Bidadinar, N-11, P.O. Khurjari, Sikar (Rajasthan) - 332001

Ph: 09001893521, E-Mail: powergrid@powergrid.co.in

9.	भवर् सिंह जी	कावनी, बीकानेर	भवर् सिंह
10.	भुराराम जी	कावनी, बीकानेर	भुराराम
11.	जैदाराज जी	कावनी, बीकानेर	जैदाराज
12.	मैहन्द्र सिंह जी	कावनी, बीकानेर	मैहन्द्र सिंह
13.	देलू सिंह जी	कावनी, बीकानेर	देलू सिंह
14.	रामू सिंह जी	कावनी, बीकानेर	रामू सिंह
15.	ओम सिंह जी	कावनी, बीकानेर	ओम सिंह

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भदवाड, राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरिबरी, सीकर, राजस्थान - 332001

दूरभाष: 09001893521, ई - मेल: पावरग्रिडसीकर@तीनल.कोम

400/220KV Substation, Bhadhadar, NH-11, P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E-Mail: powergridssikar@gmail.com

शिक्षण: नवम्बरी/दिसंबर के दौरान (अक्टूबर/नवम्बर) से सड़क जलाने वाले किसानों के लिए सड़क जलाने का कार्य किया जाएगा।

शिक्षणकर्ता का नाम: सहायक डी.ओ. (विद्युत) विभाग, तारापुर, भदवाड

आद का नाम: Brijmala, District-Deerwar, Sikar.

दिनांक: 04.05.2015

प्रश्न: आमतौर पर लाईन संचालन के उपर से जाती है तो उसका क्या होगा ?

उत्तर: सड़क के टॉपल यहाँ काविस की जाती है कि लाईन संचालन के उपर से ला निकले, फिर भी यदि किसी कारणों से लाईन संचालन के उपर से जाती है तो उसके उचित मुआवजे का भुगतान सरकार/प्रदेश सरकार/संस्थान/आधिकारी किया जाता है।

प्रश्न: लाईन के नीचे जो किसानों के फसल आर्यमे, उसका क्या होगा ?

उत्तर: सड़क के टॉपल यहाँ काविस की जाती है कि लाईन संचालन के उपर से ला निकले, फिर भी यदि किसी कारणों से लाईन संचालन के उपर से जाती है तो उसके उचित मुआवजे का भुगतान इस विभाग द्वारा, जहाँ/जहाँ/विभाग द्वारा खसरा सत्यापन के परचात, फसल के मालिक को किया जाता है।

प्रश्न: लाईन/टॉवर के नीचे जो किसानों की फसल का नुकसान होगा, उसका क्या होगा ?

उत्तर: लाईन/टॉवर के नीचे जो किसानों की फसल का नुकसान होगा, उसके उचित मुआवजे का भुगतान इस विभाग द्वारा, ग्राम प्रधान/तहसील द्वारा खसरा सत्यापन के परचात, फसल के मालिक को दिया जाता है।

Soni

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भदखर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबरी ,सिकर, राजस्थान - 332001

दूरभाष: 09001893521,, ई - मेल: पावरग्रिडसीकर@ती.नेट.कोम

400/220KV Substation, Bhadhadar, NH-11,P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E - Mail : powergridssikar@gmail.com

प्रश्न: यदि मास्टर को आड़ों के साथ ही मुआवजा मिले बिना ?

उत्तर: यदि कमीन को आड़ों के साथ ही तहसील द्वारा खसरा हस्तांतरण करने के लिए आड़ों का साथ मुआवजा यहाँ से जमा करना है तबखाना इस विषय में पूछना या ही मुआवजा देने में आड़ों से कमीन कमीन को दिया जाता है या फिर किसी एक आड़ से स्वयं केवल पर दूसरे आड़ को मुआवजा देने के लिए अलगही ले ली जाती है ।

Sawal

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

400/220kV सी. उपग्रह भद्रादर राष्ट्रीय राजमार्ग -11 पी.ओ. कुंभारही सीकर राजस्थान - 332001

दूरभाष: 099001893521 ई - मेल: पावरग्रिडसीकर@जीमेल.कॉम

400/220kV Substation, Bhadrabad, NH-11 P.O. Kumbhari, Sagar (Rajasthan) - 332001

Tel: 099001893521, E - Mail: powergridssagar@gmail.com

परियोजना :- 765kV O/C Bhadka - Sikona T/D.

गांव का नाम बीठनीक, बीकानेर दिनांक 04-06-16

जन परामर्श कार्यक्रम

उपरिष्ठत गणमान्य व्यक्तियों का विवरण :

क्र.सं.	नाम	पता	हस्ताक्षर	अन्य विवरण
1.	गजराज जी	बीठनीक, बीकानेर	गजराज	
2.	जगदीश जी	"	जगदीश	
3.	आनंदराज जी	"	"	
4.	चैतन्य जी	"	चैतन्य	
5.	जितेंद्र कुमार शर्मा	"	जितेंद्र	
6.	शक्ति शर्मा	"	शक्ति	
7.	मानजू जी	"		
8.	चुना राम जी	"		

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

400/220KV, उपग्रह महाभारतीय परियोजना - 1 पी.ओ. धुर्वीचौ पीकल तानमणल - 332004

दस्तावे: 00001893521 ई - मेल: पावरग्रीडकोर@वीमैल.कोम

400/220KV Substation, Dhurvorai, NH-11, P.O. Dhurvorai, Nigar (Rajasthan) - 332004
 TEL: 09001893521, E-Mail: powergrid@vsnl.com

क्र.	हिसाबालौ	कींभोका, कीकमेर	
9.	हिसाबालौ		किंभोका
10.	गम्भी खौ	५	गम्भी खौ
11.	तिली रामजी	५	तिली रामजी

प्रिण्टिङ्ग कार्यालय, भारत, 400/220KV, उपग्रह महाभारतीय परियोजना - 1, पी.ओ. धुर्वीचौ पीकल तानमणल - 332004
 पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड, (भारत सरकार का उपक्रम)
 अधिकारिका की जानकारी के लिए धुर्वीचौ पीकल तानमणल से संपर्क करें।

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भदखर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुडीबड़ी,सीकर, राजस्थान - 332001

दूरभाष: 09601893521, ई - मेल: पावरग्रिडसीकर@नीमेल.कोम

400/220KV Substation, Bhadhadar, NH-11, P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09601893521, E-Mail: powergridsikar@gmail.com

शिक्षण: पाठ्यहीन शिक्षण कार्यक्रमों से सीखें अपनी शक्ति के उपयोग के बारे में।
अपनी ही शक्ति से दूसरों के साथ-साथ अपने ही विचारों से दूसरों के लिए राहें।

शिक्षण/विषय का नाम: 33KV DVC योजना के अंतर्गत Transmission Line

शिक्षण का प्रकार: Distance/Online Course (हिंदी)

दिनांक: 04.05.2015

प्रश्न: इस लाईन से इस आसपास कितनी कृषि फायदा होगा ?

उत्तर: इस लाईन के निर्माण से आप सब के साथ साथ पूरे देश को फायदा है इस लाईन से
पारंपरिक होने वाली बिजली राजस्थान सरकार को ही जाननी और राजस्थान सरकार
तक यह होने वाली बिजली को आपकी गांव के साथ साथ राजस्थान सरकार के अन्य
गांवों को भी बिजली जाती जायगी जिससे आपके गांव के साथ साथ राजस्थान सरकार
के अन्य गांवों में बिजली संकट का समाधान होगा, राजगार के नए गए अक्सर पैदा
होने और गांवों में सुखपूर्वक जायगी ।

प्रश्न: अगर शाम पंचांगत की जमीन पर खर आता है तो उसका मुआवजा कितने दिया
जायेगा ?

उत्तर: अगर आप खर खोजने की जमीन कर, आपको देता है तो आपको खर खोजने का
जुते जता वास्तु संरक्षण दिया जायेगा ।

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



100/220के.वी. उपग्रह प्रकल्प/लैटिड राजमार्ग -11 वी.ओ. खुर्बडी सिविल राजस्थान - 332001

दूरभाष: 09001893521 ई - मेल: powergridcorp@gmail.com

400 /220KV Substation, Bhadrachal, NH-11, P.O. Khuribari, Sagar (Rajasthan) - 332001

Tel: 09001893521; E-Mail: powergridcorp@gmail.com

परियोजना :- 765KV Debale Circuit Badla-Bikanes Line

गाँव का नाम गिराजसर, बीकानेर दिनांक 04-06-16

जन परामर्श कार्यक्रम

उपस्थित अग्रजात्य व्यक्तियों का विवरण :-

क्र.सं.	नाम	पता	हस्ताक्षर	अन्य विवरण
1.	उमैद जी	गिराजसर, बीकानेर	उमैद	
2.	पी.के. पुरोहितजी	"	P.K. Purait	
3.	शमैरपर जी	"	शमैरपर	
4.	पवन जी	"	Pawan	
5.	पेमाशमजी	"	पेमाशम	
6.	मोहन सिंह	"	मोहन सिंह	
7.	धनशाम	"	धनशाम	
8.	रामकृष्ण सिंह	"	रामकृष्ण	

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



100/220के.सी. उपग्रह आकाशवाणीय वाद्यमाला -11 पी.ओ. बुडीबडी सीकर राजस्थान - 332001

दुरभाष: 09001893521 ई - मेल: पावरग्रिडीकरणडीओएमडीडी

100/220के.सी. उपग्रह आकाशवाणीय वाद्यमाला -11 पी.ओ. बुडीबडी सीकर राजस्थान - 332001

Tel: 09001893521, E - Mail: powergrid@powergrid.com

9.	कुछ ठेकेदारों उद्योगप्रदाता	डॉ. S. - जयप्रकाश दिवानसर, श्रीलामा	श्रीम सुभाष
10.		*	
11.	अशिल कुमार	*	अशिल
12.			

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भद्रादर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबरी ,सीकर, राजस्थान - 332001

दूरभाष: 09601893521,, ई - मेल: पावरग्रिडसीकर@ती.नेट.कोम

400 /220KV Substation, Bhadhadar, NH-11,P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09601893521, E-Mail : powergridsikar@gmail.com

संकेत: फलदातु का प्रचलन ही जालों पर होने शुरू के जालें पर क्या किया जायेगा ?

जवाब: फलदातु का प्रचलन ही जालों पर होने पर ही अतिरिक्त फलदातु की मात्रा की जासगी और आपसे उस बात का खसरा न पूछा जायेगा तत्पश्चात मुआयजा प्रचलन करा जायेगा, जिसमे दिनांक, आवश्यक जाल, चला, टावर संख्या, अतिरिक्त फलदातु का निचला, उचला, कीचल, आपसे द्वारा दिया गया खसरा संख्या इत्यादि की जासगी तथा जासगी और फल दिनांक के सिद्धी बर्तमान के खसरागत होंगे | जिससे ही और प्रतिनिधि होगी, मूल की तहसील में खसरा सत्यापन और मुआयजा निर्धारण के लिए भेजा जायेगा तथा एक प्रति आपके और हजार करा रहेगी |

Soni

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र अंतरराष्ट्रीय राजमार्ग -11 पो.ओ. सुडीवडी सीकर राजस्थान - 332001

दूरभाष: 09001893521 ई - मेल: पावरग्रिडसीकर@नीमल.कील

400/220kV Substation, Bhudhoda, NH-11, P.O. Sudiwadi, Sikar (Rajasthan) - 332001

Tel: 99001893521, E-Mail: powergrid@nicmail.com

परियोजना :- 765 KV Dobule Circuit Badla-Bikanesr Line

गाँव का नाम नीख, जैसलमेर

दिनांक 04-06-16

जन परामर्श कार्यक्रम

उपस्थित आमजन्य व्यक्तियों का विवरण :-

क्र.सं.	नाम	पता	हस्ताक्षर	अन्य विवरण
1.	शिरधर जी मावी	नीख, जैसलमेर	शिरधर	
2.	अमर लाल जी	"	अमर लाल	
3.	पैम कुमार जी	"	पैम कुमार	
4.	राणा राम जी	"	राणा राम	
5.	समन खौ	"	समन खौ	
6.	डौ लाराम	"	डौ लाराम	
7.	पीरु खौ	"	पीरु खौ	
8.	नथा राम	"	नथा राम	

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपरमंड महानगराष्ट्रीय राजमार्ग -11 पी.ओ. खुशीबडी गौकर राजस्थान - 332001

दूरभाष: 09001893521 ई-मेल: पावरग्रिडकॉर्पोरेशन.लीमिटेड

400/220kV Substation, Bhadhadar, NH-11, P.O. Khushibari, Sikar (Rajasthan) - 332001.

Tel: 090001893521, E-Mail: powergridcorpn@gmail.com

क्र.	नाम	पते, पोस्टकोड	संकेत
9.	रामू राम जी		
10-	राजू जी	"	राजू
11.	आई लाल जी	"	शाए
12.	हुजारी राम जी	"	आई लाल
13	मोहनरामजी	"	हुजारी

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भद्रादर,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबरी,सिकर, राजस्थान - 332001

दूरभाष: 09001893521, ई - मेल: पावरग्रिडसीकर@जीमेल.कोम

400/220KV Substation, Bhadhadar, NH-11,P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E - Mail : powergridsikar@gmail.com

प्रश्न: नगरपालीका द्वारा बाह्यता (अवकाश) से सौंदर्यकारी कार्य के लिए कर्मियों को छुट्टी के दिनों में काम करने के लिए कहा गया है। क्या यह सही है? यदि हाँ तो इसके कारण क्या हैं?

उत्तर: नगरपालीका द्वारा बाह्यता (अवकाश) से सौंदर्यकारी कार्य के लिए कर्मियों को छुट्टी के दिनों में काम करने के लिए कहा गया है।

प्रश्न: नगरपालीका द्वारा बाह्यता (अवकाश) से सौंदर्यकारी कार्य के लिए कर्मियों को छुट्टी के दिनों में काम करने के लिए कहा गया है।

उत्तर: हाँ। इस नज़रिए का सही ही चुनाव है क्योंकि नगरपालीका द्वारा बाह्यता (अवकाश) से सौंदर्यकारी कार्य के लिए कर्मियों को छुट्टी के दिनों में काम करने के लिए कहा गया है।

प्रश्न: फसल का मुआवजा किस आधार पर दिया जायेगा?

उत्तर: फसल का मुआवजा लहरील द्वारा लगाया जाता है जो कि आपके खेत की फसल की उपज और बाजार भाव के आधार पर दिया जाता है।

प्रश्न: लाईसन्सधार के नीचे जो किसानों की फसल का मुआवजा होगा, उसका क्या होगा?

उत्तर: लाईसन्सधार के नीचे जो किसानों की फसल का मुआवजा होगा, उसके उचित मुआवजे का मुआवजा इस विचार लहरील, राज्य प्रशासन/राज्यीय स्तर पर फसल लाईसन्स धर किसानों के मुआवजे के सौंदर्यकारी कार्य के लिए कहा है।

प्रश्न: क्या इस नज़रिए का सही ही चुनाव है, यदि हाँ तो हमारे गांव के किसान किस खसरा संख्या से यह नज़रिए ले रही है ?

उत्तर: हाँ। इस नज़रिए का सही ही चुनाव है क्योंकि नगरपालीका द्वारा बाह्यता (अवकाश) से सौंदर्यकारी कार्य के लिए कर्मियों को छुट्टी के दिनों में काम करने के लिए कहा गया है।

(Handwritten signature)

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भदवाड,राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबड़ी ,सीकर, राजस्थान - 332001

दूरभाष: 09001893521,, ई - मेल: पावरग्रिडसीकर@नीमेल.कोम

400/220kV Substation, Bhadhadar, NH-11,P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E-Mail : powergridssikar@gmail.com

अच्छे झाड़ियाँ सौंदी झाँ लिफाफों के सुंदर आदेशों, इच्छा क्या हुआ न

कतक सई के दौराब यह नोंदिस के जाती है के त्वाँल किन्ही हरे भरे बारीच के आ
डिवाले, केकर भी यदि किन्ही काहर्ना के ताईल हरे अरे लकीले के लकर के जाती है
तो कतके अचिन सुरावले का सुरावले हम किन्हा सुराव, न्दुसीतरकेल किन्हा सुराव
खसरा सत्यापन के पश्चात, वृक्ष के मालिक को किया जाता है।

Sand

पावरग्रिड कारपोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



400/220के.वी. उपकेंद्र, भदवाड, राष्ट्रीय राजमार्ग -11,, पी.ओ. खुरीबरी, सीकर, राजस्थान - 332001

दूरभाष: 09001893521, ई - मेल: पावरग्रिडसीकर@जीमेल.कोम

400/220KV Substation, Bhadhadar, NH-11, P.O. Khuribari, Sikar (Rajasthan) - 332001

Tel.: 09001893521, E-Mail: powergridsikar@gmail.com

प्रश्न: नवम्बरी 2015 के अन्त में राजस्थान के अनेक जिलों में बिजली का अभाव क्यों हुआ? इसके कारण क्या हैं? बिजली का अभाव समाप्त करने के लिए सरकार की योजनाएँ क्या हैं?

उत्तर: राजस्थान का राज्य: 400/220 KV DABT Bhadhadar-Bikaner-Durgamda-Deerajpur Link

आलेखीय नाम: Bhadhadar (Sikar) & Bikaner (Durgamda-Deerajpur Link)

दिनांक: 05.06.2015

प्रश्न: इस लाईन से इस आसपासियों को क्या फायदा होगा ?

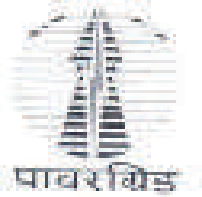
उत्तर: इस लाईन के निर्माण से आप सब के साथ साथ पूरे देश को फायदा है इस लाईन से पारंपरिक होने वाली बिजली राजस्थान सरकार को ही जाएगी और राजस्थान सरकार लाख रुपये वाली बिजली को आपसे गोरु के साथ साथ राजस्थान सरकार के अन्त में भी बिजली जाती जाएगी जिससे आपके राज्य के साथ साथ राजस्थान सरकार के अन्त में बिजली संकट का समाधान होगा, रोजगार के नए गण अक्सर पैदा होंगे और गाँवों में खुशहाली आएगी ।

प्रश्न: अगर शाम पंचागत की जमीन पर टावर आता है तो उसका मुआवजा कैसे दिया जायेगा ?

उत्तर: अगर आप बिजली की जमीन कर आपसे लेता है तो हमसे कोटेशन देकर आप को बिजली का मुआवजा दिया जायेगा ।

पावर ग्रिड कारपोरेशन आफ इंडिया लिमिटेड
(भारत सरकार का उपक्रम)

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



400/220के.वी. उपकेंद्र अटलप्रताप राष्ट्रीय राजमार्ग -11 पी.ओ. खुरीवड़ी सीकर राजस्थान - 332005

दूरभाष: 09001893621 ई - मेल: powergridसीकर@gmail.com

400/220kV Substation, BhiqBadar, NH-11, P.O. Khurihari, Sikar (Rajasthan) - 332005

Tel.: 09001893621, E - Mail: powergridसीकर@gmail.com

परियोजना :- 400kV DIC Bhadla - Bhadla TIL
765kV DIC Bhadla - Balcanca TIL

गांव का नाम - नूरे की भूर्ज, जोधपुर दिनांक 05-06-16

जल परामर्श कार्यक्रम

अपरिचित नणमान्य व्यक्तियों का विवरण :-

क्र.सं.	नाम	पता	हस्ताक्षर	अन्य विवरण
1.	मोहम्मद जाज़द	नूरे की भूर्ज, जोधपुर	मोहम्मद जाज़द	
2.	मोहम्मद रफीक	"	मोहम्मद रफीक	
3.	मिर्जातुल्लाह	"	मिर्जातुल्लाह	
4.	मुश्ताक	"	मुश्ताक	
5.	जीवराज	"	जीवराज	
6.	सदर खान	"	सदर खान	
7.	जती बाबू	"	जती बाबू	
8.	ज्याल (क)	"	ज्याल (क)	

PLATE-A

**(PHOTOS OF PUBLIC
CONSULTATION)**

Village: Kawani

Date: 04.06.16



Village: Bithnok

Date: 04.06.16



Village: Girajsar

Date: 04.06.16



Village: Naukh

Date: 04.06.16



Village: Bhuraj

Date: 05.06.16



ANNEXURE-4
(MoP Guidelines)

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

Dated: 15th October, 2015

To

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

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

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

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

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

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

Yours faithfully,


Jyoti Arora

Joint Secretary (Trans.)

Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following

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

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

ANNEXURE-5

(Action Plan for Safeguards)

ACTION PLAN FOR SAFEGUARDS

1. Based on the above Equivalence and Acceptability Assessments, ADB and POWERGRID agreed to implement the following Action Plan for bringing POWERGRID project implementation into full equivalence with SPS policy principles and attaining fully effective implementation of the ESPP and other components of its environmental and social management system.

2. POWERGRID has been updating its ESPP periodically to reflect changes in legal, policy and international best practices. POWERGRID agreed to update the ESPP as needed whenever there are policy and legislative changes related to environment and social safeguards. To ensure equivalence with the SPS, ADB proposes that covenants be included in the loan agreement for all ADB-financed projects to undertake the following equivalence and acceptability actions.

A. Equivalence Actions

3. As described above, ADB and POWERGRID agreed to incorporate the following requirements:

1. Environment

Action Plan
a) Assess potential cumulative impacts of power transmission projects and include in the environmental assessment process, where appropriate.
b) Provide data for any Government strategic environmental assessments that are relevant to POWERGRID business and operations.
c) Include cost estimates for project-specific environmental management measures into the Environmental Assessment Management Plan (EAMP) ¹ (nee. Environment Management Plan(EMP), refer ESPP Appendix- XXX-A).
d) Disclose revisions and updates of the Initial Environmental Assessment Report if any, on the POWERGRID website, and provide relevant environmental information to affected people and other stakeholders, in a timely manner and in a form and language understandable to the affected people.

2. Involuntary Resettlement

Action Plan
a) Monitor each of the three methods of obtaining land (voluntary donation, negotiated purchase, involuntary acquisition). For negotiated purchase the monitoring is to include an assessment of the transparency of the process, confirmation that the agreed price was paid and confirmation by the seller that they were satisfied with the process. For involuntary acquisition the existing monitoring requirements are maintained.
b) Disclose annual monitoring reports for individual projects in a timely manner and in Hindi and English to the affected people.

3. Indigenous Peoples

Action Plan
a. Design (i) socio-economic benefit and, (ii) capacity development for Indigenous Peoples so that they are culturally appropriate, and gender and intergenerationally inclusive.

¹ Environment Assessment Management Plan (EAMP)" & "Environment Management Plan (EMP)" are synonyms and hence EAMP should be read as "EMP" in this document.

Action Plan
b. Disclose (i) draft and final Tribal People Development Plan; and (ii) monitoring reports in a timely manner and in a form of language understandable to the affected Indigenous Peoples.
c. Obtain consent from Indigenous Peoples in the case of commercial development of natural resources within tribal lands.

B. Acceptability Actions

4. ADB and POWERGRID agreed to implement the following practices in all projects supported by ADB under POWERGRID's ESPP in lieu of ADB safeguards.

1. Environment

Action Plan
a) Assign environmental specialist(s) (staff or consultants) to each project for project implementation and monitoring during construction.
b) Undertake stakeholder consultations with representation of women.
c) Document disclosure and availability of project information in a timely manner and in a form and languages understandable to affected people.
d) Document where EAMP requirements were not met and status of associated corrective actions in site visit reports by environmental specialists.

2. Involuntary Resettlement

Action Plan
a) Develop procedures on monitoring livelihood impacts of land acquisition.
b) Use recording and tracking systems in the Grievance Redress Mechanism.
c) Conduct meaningful consultation ² with affected people.
d) Disclose monitoring reports, in a timely manner and in Hindi and English to the affected people.

3. Indigenous Peoples

Action Plan
Provisions for acceptability actions with respect to safeguards of Indigenous Peoples are not applicable at this stage. While ESPP requires that a project affecting Indigenous Peoples prepare and implement a TPDP, there are currently no POWERGRID projects triggering Indigenous Peoples safeguards under implementation that are mature enough to assess.

² Meaningful consultation defines as a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

ANNEXURE-6

**(Sample Performa for Crop
Compensation)**

पावर ग्रिड कॉर्पोरेशन ऑफ इण्डिया लिमिटेड

(भारत सरकार का उद्यम)

उत्तरी क्षेत्र प्रथम वी -4/184,

चित्रकूट स्कीम, जयपुर - 302021

फार्म सं. 1621

श्री सुजाराज (SUJARA RAM) पुत्र श्री हेमाराज (Hema Raj) दिनांक 21/08/15
 साम. जयपुर जयपुर जयपुर पिनकोड 302021 तहसील जयपुर जयपुर जयपुर
 विषय : 765 के. वी. सिंगल सर्किट जयपुर - अंचली पारेषण लाईन (सर्किट - II, Part-I, N.R.S.S-XXV के अर्न्तगत) के निर्माण से होने वाली क्षतिग्रस्त फसल के मुआवजे के विषय में।
 महोदय,

आपको इस पत्र के द्वारा यह सूचना दी जाती है कि उपरोक्त पारेषण लाईन के निर्माण के समय आपके किल फसल फसल की क्षति हुई है उसका मुआवजा इस विभाग द्वारा देय है। अतः आपसे प्रार्थना है कि इस पत्र में सभी आवश्यक सूचनाएं अव्यक्त इस कार्यालय को लौटाने की कृपा करें। जिससे मुआवजे सम्बन्धित कार्यवाही पूरी की जा सके।

क्षतिग्रस्त फसल का विवरण

सर्वे क्रमांक	क्षतिग्रस्त फसल का नाम	क्षतिग्रस्त फसल का क्षेत्रफल (वर्ग मी.)	श्रीता एवं तहसील	खसरा नं.	कार्य का विवरण
5/101 4100	मैथी खरबूजा दिया	20x15 = 300m ² + 40x40 = 1600m ² + 40x2x5 = 400m ² + 30x10 = 300m ²	कुडिभौड़ा (जयपुर)	212	इवेन्चुअर में क्षति

(मालिक द्वारा भरने हेतु)

मैं / हम प्रमाणित करता हूँ / करते हैं कि :-

1. मुझसे हुए फसल का क्षेत्रफल मैं / हम ही मालिक हूँ / हैं यदि अन्य कोई इस पर अपना स्वामित्व प्रमाणित करता है तो उसके लिए मैं / हम स्वयं उत्तरदायी हूँ।
2. उपरोक्त ही सर्व सूचना सत्य है।

सुजाराज

मालिक के हस्ताक्षर.....

नाम :

पता : 9887963979

प्रतिलिपि : 1. तहसीलदार

आपको यह पत्र इस आशा से प्रेषित किया जाता है कि क्षतिग्रस्त फसल लिखा विवरण उपरोक्त है उसका उचित मुआवजा बनाकर तब स्वामित्व प्रमाणित करके इस कार्यालय को लौटाने की कृपा करें।

P.P. CHAURASIA
 SR. ENGINEER T/L
 POWERGRID, JAIPUR

21/08/15
 मजरी

(पावरग्रिड अधिकारी के हस्ताक्षर)

सदरार क्षेत्र

कुड़ियाँ पत्र व्यास

वहसील

खिवाणगराह

जिला:

जयपुर

दिनांक:

श्री. जी. एम. शर्मा जी. जयपुर-विदानी पारोपण लाइन (लॉक-2) के निर्माण के सम्बन्ध में अतिरिक्त फलन गृहाणना हेतु सम्बंधित फलन विधि का आदेशित प्रमाण एवं शर्तिका

असत का गृहाणना निर्धारण रिपोर्ट

फार्म नंबर	तारीख	कार्य का विवरण	काल नार्किस का नाम एवं पता	असत संख्या एवं मीलों का नाम	अतिरिक्त फलन का नाम	अतिरिक्त फलन का क्षेत्र (हेक्टर)	प्रति हेक्टर अतिरिक्त फलन	कुल अतिरिक्त फलन (घ)	असत विवरण
617	21/03/13	असत	श्री. जी. एम. शर्मा	2/2	सरल	0.16	25000/-	6000/-	24000/-
618	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.04	50000/-	20000/-	40000/-
619	5/6/00	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.095	50000/-	47500/-	95000/-
620	5/1/00	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.2688	50000/-	134400/-	268800/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.1180	150000/-	177000/-	177000/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.015	250000/-	37500/-	225000/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.2845	50000/-	142250/-	284500/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.03	250000/-	75000/-	180000/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.20	250000/-	500000/-	300000/-
21	5/1/01	असत	श्री. ए. ए. शर्मा	2/2	श्री. ए. ए. शर्मा	0.03	80	240000/-	480000/-

दिनांक 16/11/16, 16/12/16, 16/12/16, 16/12/16

श्री. ए. ए. शर्मा (मुख्य अधिकारी, जयपुर)

असत विवरण



Cash Management Services - Payments

MAIL TO

Suja Ram S/O Hama Ram
Jaipur

BY ORDER OF

POWER GRID CORP OF INDIA LTD
B-4/187, Chittaranjan Scheme,
Vaishali Nagar,
Jaipur 302021

चेक प्राप्त रसीद

पावर ग्रिड कारपोरेशन ऑफ इण्डिया लिमिटेड (भारत सरकार का उद्योग)

कार्यालय: सी - 4/187, चित्रकूट नोजला, पत्ताप स्टेडियम के पास, वैशाली नगर, जयपुर - 302021

संज्ञक संख्या: एन-1/जयपुर 48/6

दिनांक 26/06/15

महोदय,

श्रीमान/श्रीमती शुभा राय

पुत्र/पत्नी हेमा राय

राम शुभेन्द्र कमल राय पोस्ट जोरपुरा

तहसील शि.नेववाला जिला जयपुर

पावरग्रिड कारपोरेशन ऑफ इण्डिया लिमिटेड द्वारा निगोपाधीन राहके.सी. एकल परिचय जयपुर-शिवानी पारंपण लाइन (पार्ट-1) (सफिट-11) के अंतर्गत टावर एरेक्शन कार्य के दौरान आपको जारी किये गए फज संख्या 16/21 से सम्बंधित टावर संख्या 51/1 का क्षतिग्रस्त फलन का गुआयजा एसी नं 36600/- लोक संख्या 19903 दिनांक 24/6/15 एच. डी. एक सी. बैंक के माध्यम से आपको प्रेषित किया जा रहा है। इसके अतिरिक्त अन्य कोई बकाया राशी नहीं है।

Handwritten signature

सादर धन्यवाद.

आपकी,

HDFC BANK

As per
the stamp

CHEQUE DISBURSEMENT CHEQUE
VALID FOR THREE MONTHS FROM THE DATE OF ISSUE

24062015

PAY Suja Ram S/O Hama Ram

OR ORDER / अदिश अनुसार

RUPEES/ रुपये THIRTY-SIX THOUSANDS SIX HUNDRED ONLY

अव बतें ₹ 36,600.00

A/c No. 00540350007084
Nett A.

FOR POWER GRID CORP OF INDIA LTD

Handwritten signature

Authorized Signatory

BRANCH CODE: 00540350007084

0103302021 <302021>
SP ER265211451 IN
Counter No:1,IP-Code:USER
To:KANKA DEVI,RAJNAG.
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211469 IN
Counter No:1,IP-Code:USER
To:SUJATA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211479 IN
Counter No:1,IP-Code:USER
To:KANKA DEVI,RAJNAG.
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211482 IN
Counter No:1,IP-Code:USER
To:ANITA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211724 IN
Counter No:1,IP-Code:USER
To:KAMESH KUMAR,RAJNAG.
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211653 IN
Counter No:1,IP-Code:USER
To:DEEPA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>

0103302021 <302021>
SP ER265211454 IN
Counter No:1,IP-Code:USER
To:ANITA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211410 IN
Counter No:1,IP-Code:USER
To:SUJATA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:33
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211429 IN
Counter No:1,IP-Code:USER
To:ANITA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211432 IN
Counter No:1,IP-Code:USER
To:DEEPA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211446 IN
Counter No:1,IP-Code:USER
To:ANITA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>



0103302021 <302021>
SP ER265211517 IN
Counter No:1,IP-Code:USER
To:ANITA KUMAR,
Gross: PIN:302001
From:POWERGRID CORP., JAIPUR
M:33grams.
PS:39.00, . 29/06/2015 . 14:34
Taxes:Rs.4.00<Have a nice day>>

Recharge issued

48/5

48/6

48/7

48/8

48/10

48/11

48/1

48/2

48/3

48/4