

Environment and Social Due Diligence Report

February 2017

IND: Clean Energy Finance Investment Program –Chattel Construction Private Limited

Prepared by

Indian Renewable Energy Development Agency for the Asian Development Bank

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DUE DILIGENCE REPORT

ON

ENVIRONMENTAL & SOCIAL SAFEGUARDS

(LOAN 3186-IND: CLEAN ENERGY FINANCE INVESTMENT PROGRAM-TRANCHE I)

Subproject: 25 MWp Solar PV Power Project at Surendranagar, Gujarat State

Subproject Developer: Chattel Constructions Private Limited

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Due Diligence Report by:

HARI PRAKASH

ADB TA Environmental Safeguards Specialist

&

M K MOHANTY

ADB TA Social Safeguards Specialist

On Behalf of:

ESSU, IREDA

3rd Floor, August Kranti Bhavan,

Bhikaji Cama Place

New Delhi 110 066

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Prepared by	HARI PRAKASH, ADB TA, Environmental Safeguard Specialist	
	M. K. MOHANTY, ADB TA, Social Safeguard Specialist	
Review by	RUCHIKA DRALL, Environmental & Social Officer, ESSU, IREDA	
Approved by	KHEKIHO YEPTHO, Head ESSU & Compliance Officer, IREDA	

CONTENT

PART I	ENVIRONMENTAL SAFEGUARDS DUE DILIGENCE REPORT.....	1 - 9
A.	Sub Project Title.....	2
B.	Sub Project Background	2
C.	Sub Project Developer.....	2
D	Present Status of Subproject.....	3
E	Applicable Environmental Safeguards Policies and Regulatory Framework.....	3
I.	Gol India Regulatory Framework.....	3
II.	ADB's Safeguards Policy and Requirements.....	4
III.	Scope and Methodology for Environmental Safeguards Due Diligence....	4
F	Environmental Safeguards Due Diligence.....	5
G	Further Actions Required.....	9
H	Conclusion and Recommendations.....	9
PART II	SOCIAL SAFEGUARDS DUE DILIGENCE REPORT.....	10 - 19
1.	Introduction.....	11
2.	Subproject Description.....	11
3.	Subproject Status.....	12
4.	Scope of Review and Methodology.....	12
5.	Social Safeguard Categorization and Rationale.....	13
6.	Social Safeguard Issues under the Subproject.....	14
6.1	Land Acquisition under the Subproject.....	14
6.2	Involuntary Resettlement Issues under the Subproject.....	17
6.3	Indigenous Peoples Issues under the Subproject.....	17
7	Public Consultation under the Subproject.....	17
8	Grievance Redress Mechanism for the Subproject.....	17
9	Community Development Initiatives by the Subproject.....	18
10.	Conclusion and Recommendations.....	19

ANNEXURES

Annexure 1	The notification of MoEF & CC	20-33
Annexure 2	Site Photographs taken during Due-Diligence Site Visit.....	34-38
Annexure 3	CTE & CTO for SPCB.....	39-46
Annexure 4	Filled in Rapid Environmental & Social Assessment Check List.....	47-66
Annexure 5	ADB prohibited list of activities.....	67-68
Annexure 6	Moping of Solar Panels.....	69-70
Annexure 7	The Batteries (Management and Handling) Rules, 2001 and 2010.....	71-82
Annexure 8	Land Purchase Permission.....	83-95
Annexure 9	Social Audit Report.....	96-117

LIST OF ABBREVIATIONS

ADB	:	Asian Development bank
CCPL	:	Chattel Constructions Private Limited
CTE	:	Consent to Establish
CTO	:	Consent to Operate
COD	:	Commercial Operation Date
ESDD	:	Environmental Safeguard Due Diligence
ESSU	:	Environmental and Social Safeguard Unit
Gol	:	Government of India
GUVNL	:	Gujarat Urja Vikas Nigam Limited
IREDA	:	Indian Renewable Energy Development Agency Limited
LoC	:	Line of Credit
MoEF	:	Ministry of Environment, Forests and Climate Change
PIM	:	Project Information Memorandum
PPA	:	Power Purchase Agreement
REA	:	Rapid Environmental Assessment
SMF	:	Sealed Maintenance Free
SPS	:	Safeguard Policy Statement
SEIA	:	Social And Environmental Impact Assessment
MW _p	:	Watt Peak Capacity

PART I
ENVIRONMENTAL SAFEGUARDS DUE DILIGENCE REPORT

ENVIRONMENTAL SAFEGUARDS DUE DILIGENCE REPORT

Sub Project: 25 MWp Solar PV Power Project Surendranagar, Gujarat State

A. Sub Project Title

1. The subproject is construction and commissioning of 25 MW capacity solar power project in Surendranagar District in the state of Gujarat, India using crystalline technology.
2. The Chattel Constructions Private Limited (CCPL) is the SPV floated by promoter company Hindustan Clean Energy Limited, which has signed a power purchase agreement (PPA) for 25 years with Gujarat Urja Vikas Nigam (GUVNL), under state Government of Gujarat.
3. IREDA, presently has approved a loan to CCPL and intends to fund the subproject through LoC (Line of credit) from ADB.

B. Sub Project Background

4. In accordance with the Gujarat State Solar Energy Policy, 2009, M/s Chattel Constructions Private Limited (M/s CCPL) received allocation of 25 MWp solar photovoltaic project against its application and the tariffs have been fixed as per the policy guidelines. M/s CCPL has been allocated under the second phase of Solar Power Policy – 2009 of the State of Gujarat

C. Sub Project Developer

5. M/s Chattel Constructions Pvt. Ltd. is a SPV incorporated on 22nd June 2010 by promoter company M/s Hindustan Clean Energy Limited to set up 25MW solar power project at Surendranagar District in the state of Gujarat as per the allocation. Apart from this, the promoters have set up and commissioned 12 similar other solar power projects in Gujarat and elsewhere, with capacity ranging between 15-50MW.
6. IREDA is a Public Limited Government Company established in 1987, under the administrative control of MNRE (Ministry of New and Renewable Energy), GoI to promote, develop and extend financial assistance for renewable energy and energy efficiency/ conservation projects. The corporate objectives of IREDA are:
 - To give financial support to specific projects and schemes for generating electricity and / or energy through new and renewable sources and conserving energy through energy efficiency
 - To increase IREDA's share in the renewable energy sector by way of innovative financing
 - To strive to be competitive institution through customer satisfaction.
 - To maintain its position as a leading organization to provide efficient and effective financing in renewable energy and energy efficiency / conservation projects.
 - Improvement in the efficiency of services provided to customers through continual improvement of systems, processes and resources.
7. In line with its corporate objectives, IREDA is considering to finance the subproject

based on crystalline technology being developed by M/s Chattel Constructions Private Limited. The estimated cost of subproject is INR 300.58 crores, out of which IREDA is processing a loan of INR 161.702 crores for the subproject.

8. At the request of GoI, ADB is processing a loan to IREDA under the Clean Energy Investment Program to augment the efforts of IREDA in financing and promoting the renewal energy projects including the solar power projects.

D. Present Status of Subproject

9. The construction of the subproject was commenced in August 2012 and commercial operations date(COD) was achieved in January 2013. Normally, it takes about 6-8 months for construction and commissioning solar project of this capacity, as has been observed in other similar projects as well. At present, the project is fully operational and functioning to its installed capacity as per allocation.

10. The solar power generated by the subproject is being evacuated through a 66 KV transmission line connected to Patdi sub-station situated at a distance of 7.6 km from the subproject site. As the project is planned under the Solar Power Policy (2009) of the state of Gujarat, and as per the terms of Power Purchase Agreement, it is the responsibility of GETCO to arrange, provide and maintain the power evacuation and transmission from the 66 kV switchyard within the subproject.

E. Applicable Environmental Safeguards Policies and Regulatory Framework

I. GoI India Regulatory Framework

11. As per the present regulatory framework, solar power projects do not require any prior environmental clearances either at the Centre or at the State level. The Schedule of EIA notification, 2006 does not include solar power projects and thus are out of the purview of this notification.

12. Further, as per the re-categorization of industries notified by MOEF&CC in March 2016, solar power projects are now placed under white category, which are exempted from even seeking consent to establish(CTE) and consent to operate(CTO) from the State Pollution Control Board. The notification of MOEF&CC as well Gujarat Pollution Control Board is given in **Annexure 1**.

13. Recently, since the project has been commissioned prior to re-categorization of industries notified by MoEF&CC, the subproject will require CTE and CTO from the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

14. As the land parcels required for subproject has been directly purchased from private land owners and does not involve any forest land, there is no requirement to obtain NOC from Forests and Environment, Department of Gujarat or to seek any clearances under the Forest (Conservation) Act, 1980.

15. Other than this, the subproject will not require any regulatory approvals either at state or

central levels.

II. ADBs Safeguards Policy and Requirements

16. IREDA's mandate is to minimize the energy sector's negative environmental impact by promoting cleaner and more environmentally friendly technologies, and thus IREDA is committed to avoid and mitigate adverse environmental impacts, if any, resulting from the projects it finances.

17. IREDA has agreed upon an ESSU (Environmental and Social Safeguard Unit) in order to be fully compliant to ADB's Safeguard Policy Statement (SPS) 2009. As per this, all sub projects financed by IREDA through the LoC from ADB are to be subjected to the agreed upon ESSU to ensure subproject's compliance to ADB's Safeguard Policy Statement (SPS) 2009.

18. IREDA has setup an ESSU (Environmental and Social Safeguards Unit) in accordance with ESSU. The ESSU is presently functional with a designated officer at the level of Asst. General Manager as in-charge of ESSU as well as compliance officer for regulatory compliances. In addition, ESSU has one full-time environmental cum social safeguards officer with 8 years of experience. IREDA has plans to recruit two more similar officers in near future for ESSU. The awareness campaign amongst borrowers of IREDA and as well as capacity building of ESSU itself is intended to be augmented through a specific ADB TA over next 3 years.

19. IREDA is presently considering to finance the subproject through the LoC from ADB and therefore the subproject is being subjected to the environmental safeguard due diligence in accordance with the ESSU to ensure subproject's compliance to ADB Safeguard Policy Statement (SPS) 2009. In line with its corporate objectives ESSU (Environmental and Social Safeguards Cell) at IREDA conducted an environmental safeguards audit to check and ensure subproject's compliance to the IREDA's ESMS agreed upon with ADB as well as ADB's Safeguards Policy Statement (SPS), 2009. Environmental safeguards audit report is attached part of **Annexure 4**.

III. Scope and Methodology for Environmental Safeguards Due Diligence

20. The ESDD (environmental safeguard due diligence) of the subproject has been carried out as per the laid down procedures in the ESSU agreed upon with ADB and applicable for all IREDA projects financed through ADB's LoC. The scope and methodology adopted for ESDD is briefly described hereunder

21. **Documents Review:** The documents review for conducting ESDD comprised;

- Review of subproject related documents like PIM (Project Information Memorandum), IREDA's loan processing file containing all project related information (from loan application to loan approval stage)
- Review of Detailed Project Report for the subproject prepared by subproject promoter cum developer
- Discussions with the sector specific team within IREDA, involved in the appraisal and loan processing of the subproject

- Discussions with the subproject developers, explaining the need and scope of safeguards due diligence, and seek additional information, wherever required but not available in the PIM or loan processing files at IREDA for preparing ESDD.
- Desk review of secondary environmental baseline data from authentic and published sources

22. The review of documents and meeting with subproject developer as part of the ESDD was carried out at IREDA's office on various dates prior to site visit in August 2016.

E. Site Visit: In co-ordination with IREDA, field visit was undertaken by both environmental and social safeguards specialists to the subproject site between 27-28 August, 2016 for safeguard due diligence of the subproject. The representatives of the promoters/developers accompanied the safeguard specialists to the subproject site and responded to all on site queries.

F. Environmental Safeguards Due Diligence

23. Based on the documents review, site visit and desk review of secondary data from published sources, environmental safeguards due diligence was carried out. The findings of the due diligence as well as the environmental sensitivity of the subproject is given hereunder

- The subproject developer has constructed a 25 MW solar power project at Surendranagar District, Gujarat State and same has been commissioned on 10 January, 2013. At present the subproject is under operation and power is being evacuated to the grid as in accordance with its power purchase agreement with the Gujarat Urja Vikas Nigam Limited.
- The subproject has been constructed over 216 acres of land, which was/is devoid of any large trees and vegetative cover. The 216 acres of land parcels largely constitute rain dependent single cropped agricultural lands. The lands have been directly purchased from the local people through a willing seller and willing buyer principle. The land parcels purchased for the sub-project was devoid of any human habitations and/or any other encumbrances. Photographs of subproject site are given in **Annexure 2**. The land transfer matters are comprehensively covered in the social due diligence report. The land transfer proof is provided in **Annexure 8 of social due diligence report**
- As per the information gathered during due diligence site visit, establishing the solar panels for the subproject did not require felling of any trees and/or clearing of any vegetation cover. As such, permissions for tree felling or site clearance activities were not warranted for the subproject.
- The subproject site is connected to the State Highway through all-weather bituminous road. The nearest airport is at Ahmedabad, some 120 kms away from the subproject location.
- The subproject, has received the consent to establish (CTE) and Consent to Operate (CTO) from the State Pollution Control Board with a validity of 5 years i.e. January 02, 2018. (Refer **Annexure 3**). However, as per the re-categorization of industries notified by MOEF&CC in March 2016, solar power projects are now placed under white category, which are exempt from even seeking consent to establish and operate from

the State Pollution Control Board.

- As the subproject will not require/warrant an EIA preparation as per regulatory requirement, the developer has not commissioned any EIA studies. However, the developer, as their corporate policy is committed to comply with IFC's Environmental, Health and Safety Guidelines and as required by IREDA for the subproject. A rapid environmental assessment of the subproject using the REA checklist and environmental categorization (attachment 3 & 4 of ESSU) was carried based on the documents review supplemented by site visits for ground truth verification. The filled-in REA checklists and environmental categorization form are given in **Annexure 4**.
- Based on the filled-in REA checklists and environmental categorization, the subproject can be classified as Category B, as the impacts due to construction are largely limited to subproject site itself and such impacts are controlled/mitigated through site specific measures.
- The subproject does not fall under the ADB prohibited list of activities given in **Annexure 5**.
- The subproject has no National Park or Wildlife Sanctuary or ecologically sensitive areas within a radius of 10 km.
- The subproject site is not reported to be falling along the migrant route any threatened/protected wildlife. Occurrence of rare, threatened and/or endangered (both flora and fauna) species has not been reported in and around the subproject area/region.
- No archeological or historical monuments, protected by Archeological Survey of India or from the State Government have been reported in and around the sub project site as well as within a radius of 10 km. The subproject construction did not impact any religious structures or worship places or places of importance/value to the local populace.
- No perennial or seasonal rivers/streams flow within a region of 10 km radius surrounding the sub project site.
- As assessed during field visit for safeguards due diligence, the construction of subproject facility has not involved any significant earth work excavation/filling or major construction activities, except for marginal grading activities to even out and level the ground for installing solar PV panels on prefabricated metallic frames (Ref Site Photographs -Annexure 2).
- The subproject is accessible through an all-weather road almost up to subproject site and did not require/involve construction of new haul roads for transportation of construction materials. The limited site specific impacts like dust, noise, disposal of construction waste, on site sanitation facilities for construction force, have been reported to be handled through site specific mitigation measures and good engineering practices of the EPC contractor.
- In order to conserve water, developer has opted for mopping of panels manually through wet micro fibers for periodic cleaning of solar PV panels instead of hydrant and sprinkler network, which require comparatively more water. The developer has employed the local villagers for cleaning of panels and 4 cleaning groups have been formed with 4 persons per group. Water is brought to the subproject site in water tankers, which is fitted with

motorized fine spraying system. As the water tankers move along panel rows, with spraying of water on either sides, the cleaning group (2 on each side) follow the tankers, cleaning the panels through mops with long handles. Although cleaning of panels is done on a daily basis (except on holidays and rainy days), it takes about 4 weeks to complete one round of cleaning within the entire subproject site.

- The cleaning groups are orally briefed about safety aspects and to avoid high voltage areas within the subproject premises. Except for the high voltage areas, (which are in any case are not near panels), the cleaning of panels does not have any safety issues or any requirement for protective devices to work at heights. Photographs which illustrates cleaning of panels through mopping method in a similar operational solar power plant elsewhere is given in **Annexure 6**.
- As the project has regulatory exemptions from both centre and state levels, developer has informed that no environmental monitoring was carried out during construction phase. The HSE in-charge at project site has informed that PFC, the other co-lender to this sub-project has not sought any such requirement for periodic monitoring reports during construction phase.
- The developer has confirmed that they had not received any complaints during construction phase. On the contrary, the developer had provided local people with employment as well as petty/small contracts during construction phase.
- During due diligence, this aspect was verified through informal interactions with some people, whose parents/family members had sold the land to the subproject and presently some of their family members are even employed as O & M personnel in the subproject.
- On the contrary, the developer has informed that the local people have been benefitted through employment as well as small/petty contracts related to project construction activities during construction phase. Even during the present operation phase, developers have employ the local people for surveillance and security of the subproject, and periodic cleaning and other miscellaneous requirements as deemed fit.
- Factories Act, 1948 as well as Explosives Act 1884 (amended 2008), is not applicable to this subproject. However, Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 is applicable to ensure safety and welfare measures for workers employed at building and other construction sites. The subproject is covered under 'other construction' category. The Gujarat State Building and Other Construction Workers' Welfare Board monitor compliance to this act/regulation at all work sites and also a cess is levied on contractor.
- The developer has informed that since its commissioning in Jan 2013, there has been no health, safety issues or incidents at the project site. Periodic orientation to workforce is being provided on EHS issues. Whenever some incident happens, required actions are taken at site and the matter is reported to their corporate office as part their regular reporting mechanism for the subproject as a whole.
- Interactions during due diligence site visit, developer has informed that all staff are fully

oriented and sensitized periodically (monthly staff meetings and informal interactions during onsite inspections) about high voltage areas like invertors, panel rooms and switch/transformer yard areas. All such areas have restricted entry for authorized personnel only, even among O & M staff.

- The subproject maintains telephone number of hospitals, police and district administration and other government departments, in case of any emergency. A multi-purpose transport vehicle is stationed at subproject site at all times. Since the commissioning of the subproject, there has not been a single incident of any type. Other than this, the subproject does not have any emergency plan and neither any such plan is warranted by local laws and regulations, as informed by developer.
- The project is also subjected to Indian Electricity Regulations and has to confirm with respect to both safety and technical requirements, as part of testing and commissioning of subproject.
- The developer has informed that since the COD, there has been no damage of any panels (physical damage or out of service). If there is any damage, the same will be replaced by the panel supplier/manufacturer. All the panels carry a replacement warranty for 25 years (excluding physical damage). In case of any panel gets damaged, the matter will be reported to the manufacture/supplier, who will come to site with replacement and take away the damaged panel.
- The land is owned by the developer and the power purchase agreement is for 25 years and therefore project will remain operational for a minimum of 25 years from COD. The loan term with IREDA is only for 12 years from COD.
- At present, the developer has no plans in place for decommissioning but has informed that as a corporate entity they are committed to comply with all regulatory requirements as and when the decommissioning will be scheduled. Similarly, the developer, at present does not have any plans in place for the subsequent use of the land after decommissioning of subproject and/ or expiration of power purchase agreement.
- The subproject does not discharge any toxic waste. The handling of the used batteries come under the purview of The Batteries (Management and Handling) Rules, 2001 and 2010 and thus either used batteries are taken away by the suppliers of new batteries or sold to recyclers authorized by the State Pollution Control Board. The Batteries (Management and Handling) Rules, 2001 and 2010 is provided as in **Annexure 7**.
- The subproject is using SMF (sealed maintenance free) batteries, which are highly recommended for inverters as they are safe and maintenance free. These SMF batteries are fully sealed and emit no fumes as compared to lead acid batteries and thus also eliminates the need for routine maintenance like periodic water topping. In SMF batteries, the electrolyte used will be in the form of gel, which fills the cavities between battery plates and these batteries emit H₂ and O₂, but these gases combine to form water.
- As per the developer, SMF batteries normally have a life of some 24-30 months and batteries are replaced after this period and old /used batteries are taken away battery supplier and they do not have any storage areas within the subproject area.
- The dealers as well as consumers of batteries are covered under the Batteries

(Maintenance and Handling) Rules, 2001 and 2010(Ref Annexure 7). Under the purview of these rules, the subproject developer is mandatorily required to deposit used batteries with the battery dealer or can dispose (auction off) off the batteries with the authorized/registered recyclers and submit returns to the State Pollution Control Board.

G. Further Actions Required

24. The ESDD indicated the requirement of following further actions for the subproject

- The developer has to earmark a budgetary provision for the environmental management plan for the operation phase and compliance of all consent conditions laid out by pollution control board. During the safeguards due diligence, the project developer has consented to earmark a budgetary provision for environmental management as per CTO requirements of the State Pollution Control Board and IREDA's loan covenant.
- The ESSU at IREDA shall ensure developer make budgetary provision and monitor implementation of the environmental management plan through developer's periodic environmental monitoring progress reports and undertake periodical due diligence visits to ensure satisfactory regulatory compliance to State Pollution Control Board.
- The ESSU at IREDA shall ensure that subproject developer maintains internal documentation on HSE as part of environmental management of subproject.

H. Conclusion and Recommendations

25. The conclusions of the ESDD for the subproject are:

- This subproject has been prepared by the promoter cum developer as per their own investment plan supplemented by IREDA's loan assistance but not in anticipation of availability of funds to subproject through IREDA's LoC from ADB.
- The construction and operation of the 25 MW solar power project Surendranagar district, Gujarat State, India has no major significant environmental issues. The subproject has achieved Commercial Operations Date in January 2013 and since then generating solar power as per installed capacity.
- IREDA, through its ESSU is committed to monitor the regulatory compliance(s) at subproject site through developer's periodic progress reports and undertake periodical due diligence visits to subproject site.
- The current subproject will therefore be in compliance to ADB Safeguard Policy Statement (SPS) 2009 and does not pose reputational risk to ADB funding on environmental safeguards and considered for LoC from ADB funding under the Clean Energy Investment Program.

PART II
SOCIAL SAFEGUARDS DUE DILIGENCE REPORT

SOCIAL DUE DILIGENCE REPORT

Subproject: 25 MW Solar Photovoltaic Power Project at Kathada, Ahmedgarh and Savda Village in Surendranagar in the State Of Gujarat (India)

Developer: Chattel Construction Private Limited (CCPL) by Hindustan Clean Energy Limited

1. Introduction

Indian Renewable Energy Development Agency Limited (IREDA) is the single largest renewable energy financier in India and applied for ADB loan to fund as a part of its overall lending portfolio, to private sector renewable energy and energy efficiency subprojects in India, including small scale wind, biomass, small hydro, solar, cogeneration, and energy efficiency.

IREDA's mandate is to minimize the energy sector's negative environmental impact by promoting cleaner and more environmentally friendly technologies, and thus is committed to avoid and mitigate adverse environmental impacts, if any, resulting from the projects it finances. In order to identify and effectively address potential impacts from projects funded with the ADB line of credit, IREDA has formulated and adopted an Environment and Social Safeguard Unit (ESSU), which is in compliance with Indian national laws and Asian Development Bank (ADB) Safeguard Policy Statement (SPS) 2009. The objective of the ESSU is to guide IREDA's actions to safeguard against adverse environmental and social impacts for sub-projects using ADB's funds.

Keeping in view the main objective of the ESSU, ADB social safeguard requirements and in confirmation with the national and local policy and legal framework, a social due diligence study has been carried out for the subproject i.e. 25 MW Solar Photovoltaic Power Project at Kathada, Ahmedgarh and Savda Village in Surendranagar in the State Of Gujarat (India) developed by Chattel Construction Private Limited (CCPL).

2. Subproject Description

The project is implemented under the Solar Power Policy 2009 of Gujarat. Multi Crystalline Silicon PV solar cells shall be used in the project to generate electricity. CCPL ("the company") has already signed a PPA for 25 years with Gujarat Urja Vikas Nigam Limited (GUVNL) with permission from Government of Gujarat, for sale of power generated from the project.

The project is located at 23°15'58.8" North altitude and 71°46'42.9" East longitudes. The site is located in Kathada, Ahmedgadh and Savda villages in Surendranagar District in the state of Gujarat, India. The surface topography is almost flat. Hence, limited site preparation/leveling activity was carried out to make the land flat as per the requirements of solar PV power plant. The entire area is shadow free as there are no shading elements like mountains, large sand dunes, etc. on the site. The map of the project location is provided in **Figure 1**.



Figure: 1 Project Site Map

The power generated from the solar power plant is being transmitted to 220kV/400kV (sub-station) situated at a distance of 7.6 kilometers known as Patdi owned by Gujarat Electricity Transmission Company Limited (GETCO) and the company has already signed a power purchase agreement with GETCO.

3. Subproject Status

The construction of the power plant was started in 2011. The land required for the project was directly purchased on the basis of willing buyer – willing seller basis from the landowners of three above-mentioned villages. There is no compulsory land acquisition for the subproject or no government or community land has been utilized for the plant. The power plant is fully operational since September 2012. The subproject developer has proposed this project to IREDA for a post commissioning (take-out) financing.

4. Scope of Review and Methodology

This social due diligence report is prepared based on review of various subproject documents, consultation with developers, field staff and on site observation. The documents reviewed for the subproject includes Social Safeguard Audit Report and other related report available with IREDA. During the subproject preparation stage the developer has not carried out any social impact assessment study as it has directly purchased land for the subproject. However, a social safeguard audit report was prepared for the project just before it's commissioning. Site visit was

conducted during due diligence study in September-2016 and consulted with the field staff of Project Developer.

5. Social Safeguard Categorization and Rationale

On the basis of the review of project information and site observation, the Social Safeguard Screening Checklist (refer **Annexure 4**) was completed as per the requirement set forth in IREDA's Environmental and Social Safeguard Unit (ESSU). Based on the social safeguard checklist, it was established that the subproject is categorized as "Category-C" from both Involuntary Resettlement and Indigenous Peoples safeguard point of view. The Involuntary Resettlement Categorization form and the Indigenous Peoples Categorization form are attached in **Annexure 4**.

The rationale behind the social safeguard categorization as "C" i.e. the subproject does not require any further specific actions so far as the social safeguard point of view is because the subproject does not involve any involuntary acquisition of private land and does not have any negative impacts on people including indigenous community. The photograph of the subproject site is presented below in **Figure-2**.



Figure-2: Photograph of the Plant Site

6. Social Safeguard Issues under the Subproject

The social safeguard issues identified through the social due diligence process is discussed in the following section.

6.1 Land Requirement under the Subproject

The land requirement for the subproject was for installation of solar panel, approach roads, switchyard and control room etc. all within the plant site. Total land requirement for the subproject was 219.04 acres. The land requirements for the solar power plant are presented in the Table: 1 below.

Table 1: Land Requirement for the Subproject

S N.	Name Of Owner	Survey NO.	Acre	Sale Deed No.	Dt of Registration
	Village : Kathada				
1	Meghabhai Ajabhai Chavada	247/P/2	10.80	2323	17.10.2011
2	Gautambhai Nanjibhai Parmar	280	11.42	2369	25.10.2011
3	Sandip Bhai Amarabhai Vanol	227/1	3.37	2377	25.10.2011
4	Meghabhai Ajabhai Chavada	244	6.32	2375	25.10.2011
5	Laxmanbhai Devabhai Desai	230/PAIKI/1	4.05	2376	25.10.2011
6	Pravinbhai Haribhai Sindhav	259	2.67	2374	25.10.2011
7	Laxmanbhai Devabhai Desai	104	6.52	2379	25.10.2011
8	Harshadbhai Bhailalbai Raval	256	1.85	2403	2.11.2011
9	Harshadbhai Bhailalbai Raval	257	1.90	2404	25.10.2011
10	Harshadbhai Bhailalbai Raval	258	2.02	2405	25.10.2011
11	Ajitbhai Dhanabhai Jadav	250	5.47	2409	25.10.2011
12	Janakbhai Arjanbhai Chavada	277	7.77	2410	25.10.2011
13	Nathabhai Nanubhai Goyal	278	4.47	2408	25.10.2011
14	Minaben Kumudchandra Shah	239	2.85	2420	2.11.2011
15	Minaben Kumudchandra Shah	240	3.22	2422	2.11.2011
16	Pavara Parsotambhai Gandabhai	251	4.72	2431	3.11.2011

S N.	Name Of Owner	Survey NO.	Acre	Sale Deed No.	Dt of Registration
17	Pavara Parsotambhai Gandabhai	252	2.22	2430	3.11.2011
18	Sandipkumar Amarabhai Vanol	266	5.75	2418	2.11.2011
19	Harshadbhai Bhailal Raval	267	8.22	2417	2.11.2011
20	Minaben Kumudchandra Shah	269	3.85	2423	2.11.2011
21	Minaben Kumudchandra Shah	274	5.62	2435	3.11.2011
22	Minaben Kumudchandra Shah	275 PAIKI 2	7.00	2434	3.11.2011
23	Nurahmad Mohmadhusen Vora	275 PAIKI 4	4.27	2433	3.11.2011
24	Nurahmad Mohmadhusen Vora	276 PAIKI 1	4.62	2432	3.11.2011
25	Laxmanbhai Devabhai Desai	276 PAIKI 2	4.62	2419	3.11.2011
26	Ajitbhai Dhanabhai Jadav	249	5.72	2439	5.11.2011
27	Vanol Sandipbhai Amarabhai	268 PAIKI 2	5.72	2442	5.11.2011
28	Laxmanbhai Devabhai Desai	271	2.75	2443	5.11.2011
29	Laxmanbhai Devabhai Desai	272	1.02	2444	5.11.2011
30	Janakbhai Arjanbhai Chavada	275 PAIKI 1	2.72	2447	5.11.2011
31	Pavara Parsotambhai Gandabhai	241	13.65	2498	9.11.2011
32	Vanol Sandipbhai Amrabhai	253	2.22	2803	27.12.2011
33	Vanol Gandabhai Pathabhai	245	7.95	2804	27.12.2011
34	Jebatkhan Sahebkhani	268/1	6.10	2809	28.12.2011
35	Lakhabhai Saktabhai	270	4.85	30	04.01.2012
36	Jenubhai Davalbhai	265/1	5.12	72	13.1.2012
	Village: Ahmedgad				
37	Chavada Jagamalbhai Bhalabhai	100 PAIKI 2	6.15	2468	5.11.2011

S N.	Name Of Owner	Survey NO.	Acre	Sale Deed No.	Dt of Registration
38	Minaben Kumudchandra Shah	102	8.10	2470	5.11.2011
39	Janakbhai Arjanbhai Chavada	103	4.22	2445	5.11.2011
40	Sandip Kumar Amarabhai Vanol	99	4.30	2499	9.11.2011
	Village: Savada				
41	Laxmanbhai Devabhai Desai	496	4.675	2471	5.11.2011
42	Ismailbhai Amibhai Vora	498	8.075	2806	27.12.2011
	Total		219.04		

As mentioned earlier the developer has directly purchased the land required for the subproject, from the 54 landowners on willing seller - willing buyer basis. The land purchase for the project has been done as per section 55 of the Saurashtra Gharkhed Tenancy Settlement and Agriculture Land Ordinance 1949 (as amended in 19971) applicable in Gujarat. Section 55 outlines the provisions for the Sale of land for bonafide industrial purpose. Based on the assessment of sale deed agreements, it is confirmed that the land has been purchased from the owners directly clarifying the purpose of purchase and the land register has verified and certified that the land is encumbrance free and without any kind of litigation. It is confirmed in the social safeguard audit report that the compensation rates offered and paid to the landowners were higher than the prevailing circle rate. The sample sale deed agreement administered for land purchasing is attached in **Annexure 8**.

The solar power plant will be using the associated facilities like access roads, transmission lines and sub-station. The project will utilize the existing village road; no new roads will be built as part of this project. The power generated from the proposed solar power plant would be evacuated through a 66kV transmission line to an existing sub-station (Patdi) of GETCO, situated about 7.6 km from the project site. As the project is planned under the Solar Power Policy (2009) of the state of Gujarat, and as per the terms of Power Purchase Agreement, it is the responsibility of GETCO to arrange, provide and maintain the power transmission evacuation facilities up to the 66 kV switchyard of the project. However, in the interest of meeting the commissioning schedule for the project, it was agreed between GETCO and the Company that the Company would manage the construction of transmission lines under the overall supervision and approval of GETCO.

For the Construction of the 66 kV transmission line from Chattel to the Patdi GETCO substation has been set up with 34 numbers of towers. Each tower footing required 75 sq.m of land. The cost of transmission line will be borne by CCPL. For setting up of transmission line towers, 36 landowners have been compensated for the temporary damages as per the Indian Telegraph Act and State policy. A total compensation of INR 3.5 Million has been paid or approximately INR 0.1 Million per tower footing. The period of payments to landowners and tower erection was December 2011 – April 2012. No further land acquisition or involuntary resettlement issues are expected from the use of the substations, which have been in existence for more than 15 years. The construction of transmission work has been executed under the supervision of GETCO engineers and in line with GETCO existing policies and frameworks.

6.2 Involuntary Resettlement Issues under the Subproject

Since there is no compulsory private land acquisition involved the subproject and the land has been purchased on the basis of willing buyer – willing seller basis, there does not arise any issue of involuntary resettlement. The landowners have directly sold their land to the developer and the lands are either barren or low-productive agricultural land. The landowners have only sold part of their land and not suffered any major livelihood loss. During the site visit it was observed that the land percales purchased for the subproject are away from the settlement area and therefore does not occurred any physical displacement.

In the Social Safeguard Audit report prepared in 2012, it is confirmed that the land sold for the project was not much productive for them because of the higher salt concentration in the ground water. As per the land owners, the sale of land came as an opportunity to earn income from an otherwise unproductive land. The payment provided against the land purchased has helped these farmers to find alternative land in a more fertile area or start an alternate livelihood Also, as per the landowners; there were other productive plots that were available with them. Mostly cash crops such as cotton and groundnuts are cultivated in the region. The copy of the social safeguard audit report is attached in **Annexure 9**.

It was informed by the project developer that during the construction period, many villagers were engaged as laborers including women. At present there is no construction work going on at site. However, some of the local people are employed directly and indirectly in the subproject. During the site visit it was found that out of six technicians working in the subproject, three are locally hired. The security contractor also engaged 11 guards from the affected villages. The cleaning vendor associated with the developer also engaged 12 persons including drivers and laborers locally.

6.3 Indigenous Peoples Issues under the Subproject

According to the Census of India 2011 statistics, Scheduled Tribe (ST) population of Surendar Nagar district is below 1%. It is confirmed from the census information that no indigenous people are present in the subproject villages and none of the land purchased for the subproject belongs to the ST community. The same has been also confirmed in the Social Safeguard Audit report accessing through public consultation. Hence, there is no issue of indigenous people has been identified under the subproject.

The project is not directly benefiting the ST community as the power generated from the plant will be connected to transmission grid only and does not have any role in distribution system. However, at larger level, the power generation will definitely strengthen the power supply system of the area as a whole and hence indirectly benefit all communities including ST in the area.

7. Public Consultation under the Subproject

During various stages of subproject preparation, public consultation meetings were carried out involving various stakeholders. The project developer has informed the villagers about the project during very inception stage. The stakeholders engaged in the consultation process included village *panchayat*, village community, landowners, local administration, revenue officers, and various line departments. In addition to the social safeguard issues discussed in

the consultation meetings, some of the other relevant subproject specific issues such as subproject benefit, community participation, CSR policy and activities and grievance redress mechanism etc. discussed during the consultation.

During project construction, the Company held meetings and public consultations with the residents of Kathada, Savda and Ahmedgadh Villages and it was confirmed in the Social Safeguard Audit report as well The Company made a presentation on the proposed project, development prospects, project impacts and measures to mitigate possible negative impacts. The prospects of improving social and economic status of the region as a result of a successful project implementation as well as corporate social responsibility (CSR) activities of the Company were also discussed. The CSR activities proposed by the Company and to be taken up during the operational phase of the project include:

- Solar light for temple
- Assistance for village schools
- Transportation facility
- Women Empowerment Programs
- Drinking water facility

8. Grievance Redress Mechanism for the Subproject

Environmental and social grievances were handled in accordance with the project grievance redressal mechanism defined under the HR policy for contractors. The Grievance Redressal Mechanism (GRM) for the project provides an effective approach for complaints and resolution of issues made by the affected community in a reliable way. This mechanism was established prior to construction and will remain active throughout the life cycle of the project. A Grievance Redressal Committee (GRC) was formed at the project site to ensure affected people's grievances on both environmental and social concerns are adequately addressed and facilitate timely project implementation. The GRC was established comprising the; Project head, Liasoning officer – Site In charge/Admin and Land seller /Local Community Member. The detail of grievance redress mechanism was communicated during the process of public consultations.

The Project Head is responsible for capturing, identifying, maintaining enquiries associated with community grievance in a register, and communicating progress to the concerned community member. A Register to document the grievance if any is available at site. However, at the Chattel site, there are no grievances related to land acquisition or from local community.

During the site visit, it is observed that a complain register was available in their site office but found no complain registered in it.

9. Community Development Initiatives by the Subproject

The subproject has created employment opportunities for local people and utilizing local resources in terms of employment of local laborers, hiring machines and manpower for transportation of materials and equipment during construction.

As a part of its corporate social responsibility (CSR) program, the developer has assessed some local needs and planning to take up following activities as a part of Community Development Plan for the villages near the plant.

- Upgrading local infrastructure like school and health center.

- Educate villages about methods to replenish underground water.
- Support for repair /strengthening of existing water resources.
- Strengthening of existing roads in the villages

The developer has already initiated some of the community development initiatives like repairing and maintenance of common road used for the plant and villages. It is observed that no further specific CSR plan is available with the developer. However, it was informed that as per their corporate policy, they would continue the activities in the subproject area.

10. Conclusion and Recommendations

The social due diligence study of current subproject reveals that it has not caused any adverse social impact due to the intervention. The subproject is categorized as Category "C" from social safeguard point of view. The private land required for the subproject is directly purchased from landowners by paying market value to the landowners and no compulsory acquisition of land occurs in the subproject, therefore no involuntary resettlement occurs.

As per the ESMS requirement, no further action including resettlement planning, livelihood planning or indigenous peoples planning is required for the subproject. However, the developer will continue to engage the local villagers throughout the operation period and carry out CSR activities in the area. It is recommended that the developer should prepare annual CSR plan and implement in the subproject area to benefit the local community.

Based on the findings of due diligence study the subproject is recommended for funding under the proposed project using ADB line of credit. IREDA will ensure compliance of ESSU and carry out periodic monitoring of the social safeguard issue and report to ADB as agreed in the ESSU.

Annexure 1
The notification of MoEF & CC

Press Information Bureau
Government of India
Ministry of Environment and Forests
05-March-2016 14:13 IST
Environment Ministry releases new categorisation of industries

‘Re-Categorisation of Industries a landmark decision, new category of white industries will not require environmental clearance’: Javadekar

The Government today released a new categorization of industries based on their pollution load. Releasing the new categorization here today, Minister of State (Independent Charge) of Environment, Forest and Climate Change, Shri Prakash Javadekar, said, “The new category of White industries which is practically non-polluting will not require Environmental Clearance (EC) and Consent and will help in getting finance from lending institutions. The exercise of Re-categorization was being carried out for last one year. This is a landmark decision to give a fair picture of the industries”.

“Re-categorization of industries based on their pollution load is a scientific exercise. The old system of categorization was creating problems for many industries and was not reflecting the pollution of the industries. The new categories will remove this lacuna and will give clear picture to everyone. 25 industrial sectors which were not critically polluting were also earlier categorized as Red. This was creating wrong impression to everyone”, Shri Javadekar added.

The Ministry of Environment, Forest and Climate Change (MoEFCC) has developed the criteria of categorization of industrial sectors based on the Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources. For this purpose the references are taken from the the Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act , 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index PI of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector. Based on the series of brain storming sessions among CPCB, SPCBs and MoEFCC , the following criteria on ‘Range of Pollution Index ‘for the purpose of categorization of industrial sectors is finalized.

- Industrial Sectors having Pollution Index score of 60 and above - Red category
- Industrial Sectors having Pollution Index score of 41 to 59 – Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 – Green category
- Industrial Sectors having Pollution Index score incl.&upto 20 - White category

The salient features of the ‘Re-categorization’ exercise are as follows:

- Due importance has been given to relative pollution potential of the industrial sectors based on scientific criteria. Further, wherever possible, splitting of the industrial sectors is also considered based on the use of raw materials, manufacturing process adopted and in-turn pollutants expected to be generated.
- The Red category of industrial sectors would be 60.
- The Orange category of industrial sectors would be 83.
- The Green category of industrial sectors would be 63.
- Newly-introduced White category contains 36 industrial sectors which are practically non-polluting.

- There shall be no necessity of obtaining the Consent to Operate'' for White category of industries. An intimation to concerned SPCB / PCC shall suffice.
- No Red category of industries shall normally be permitted in the ecologically fragile area / protected area.

The details of the industries falling under Red, Orange , Green and White categories are presented in tables 1, 2, 3& 4 respectively (given below).

The newly introduced White category of industries pertains to those industrial sectors which are practically non-polluting, such as Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machines), Cotton and woolen hosiers making (Dry process only without any dying/washing operation), Electric lamp (bulb) and CFL manufacturing by assembling only, Scientific and mathematical instrument manufacturing, Solar power generation through photovoltaic cell, wind power and mini hydel power (less than 25 MW).

The purpose of the categorization is to ensure that the industry is established in a manner which is consistent with the environmental objectives. The new criteria will prompt industrial sectors willing to adopt cleaner technologies, ultimately resulting in generation of fewer pollutants. Another feature of the new categorization system lies in facilitating self-assessment by industries as the subjectivity of earlier assessment has been eliminated. This 'Re-categorization' is a part of the efforts, policies and objective of present government to create a clean & transparent working environment in the country and promote the Ease of Doing Business.

Other similar efforts include installation of Continuous Online Emissions/ Effluent Monitoring Systems in the polluting industries, Revisiting the CEPI (Comprehensive Environment Pollution Index) concept for assessment of polluted industrial clusters, revision of existing industrial emission/effluent discharge standards, initiation of special drive on pollution control activities in Ganga River basin and many more in the coming days.

Table 1 : List of Red Category of Industries

Sl No.	Industry Sector	Sl No.	Industry Sector
1	Isolated storage of hazardous chemicals	39	Yarn / Textile processing
2	Automobile Manufacturing (integrated)	40	Chlor Alkali
3	Hazardous waste recycling (Spent cleared metal catalyst)	41	Ship Breaking
4	Lubricating oils and grease mfg.	42	Oil and gas extraction
5	DG Set (> 5 MVA)	43	Metal surface treatment
6	Carbon black & allied	44	Tanneries
7	Lead acid battery	45	Ports /harbor/jetties
8	Phosphate rock processing	46	Synthetic fibers
9	Power generation plant	47	Thermal Power Plants
10	Hazardous Waste Recyclers (Spent catalyst)	48	Slaughter house
11	Chlorinated hydrocarbons	49	Aluminium Smelter
12	Sugar	50	Copper Smelter
13	Fibre glass production	51	Fertilizer (basic)
14	Fire crackers	52	Integrated Iron & Steel
15	E-Waste Recyclers	53	Pulp & Paper (bleaching)
15	Milk and dairy products	54	Zinc Smelter
17	Phosphorous	55	Oil Refinery
18	Pulp & Paper	56	Petrochemicals
19	Coke making	57	Pharmaceuticals
20	Explosives / detonators	58	Pulp & Paper (Large-Agro + wood),
21	Paints varnishes, pigments	59	Distillery
22	Organic Chemicals	60	Railway locomotive work shop/ service centers
23	Airports and Commercial Air Strips		
24	Asbestos		
25	Basic chemicals		
26	Cement		
27	Chlorates, per-chlorates & peroxides		
28	Chlorine, fluorine, bromine, iodine		
29	Dyes and Dye- Intermediates		
30	Health-care Establishment		
31	Hotels (Big)		
32	Lead acid battery -recyclers		
33	Waste electrical and electronic recyclers		
34	Glue and gelatin		
35	Mining and ore beneficiation		
36	Nuclear power plant		
37	Pesticides		
38	Photographic film /chemicals		

Table 2 : List of Orange Category of Industries

Sl. No.	Industry Sector	Sl. No.	Industry Sector
1	Almirah, Grill Manufacturing	43	Large Cotton spinning and weaving
2	Aluminium & copper extraction from scrap	44	Lime manufacturing (using lime kiln)
3	Automobile servicing, repairing	45	Liquid floor cleaner, black phenyl
4	Ayurvedic and homeopathic medicine	46	Manufacturing of glass
5	Brickfields	47	Manufacturing of mirror from sheet glass
6	Building and construction >20,000 sq. m	48	Manufacturing of mosquito repellent coil
7	Cashew nut processing	49	Manufacturing of Starch/Sago
8	Ceramics and Refractories	50	Mechanized laundry using oil fired boiler
9	Chanachur and laddoo using husk fired oven	51	Medium scale Hotels
10	Coal washeries	52	Modular wooden furniture
11	Coated electrode	53	New highway construction project
12	Coffee seed processing	54	Non-alcoholic beverages(soft drink)
13	Compact disc computer floppy	55	Paint blending and mixing (Ball mill)
14	Copper waste recyclers	56	Paints and varnishes (mixing and blending)
15	Dairy and dairy products (small scale)	57	Parboiled Rice Mills
16	DG set (>1MVA but < 5MVA)	58	Pharmaceutical formulation
17	Dismantling of rolling stocks	59	Ply-board manufacturing
18	Dry cell battery	60	Potable alcohol (IMFL) by blending
19	Dry coal / mineral processing	61	Printing ink manufacturing
20	Fermentation (Extra Neutral Alcohol)	62	Printing or etching of glass sheet
21	Ferrous and Non- ferrous metal extraction	63	Printing press
22	Fertilizer (granulation / formulation / blending	64	Producer gas plant
23	Fish feed, poultry feed and cattle feed	65	Recyclers - used oils
24	Fish processing and packing	66	REcyclers - waste oils
25	Flakes from rejected PET bottle	67	Recycling - Paint and ink Sludge
26	Foam manufacturing	68	Reprocessing of waste plastic /PVC
27	Food and food processing	69	Rolling mill (oil or coal fired)
28	Forging of ferrous and non- ferrous	70	Silica gel
29	Formulation/pelletization of camphor tablets etc.	71	Silk /saree screen printing
30	Glass ceramics, earthen potteries and tile	72	Spray painting
31	Gravure printing, digital printing on flex, v	73	Steel and steel products with furnaces
32	Heat treatment using oil fired furnace	74	Stone crushers
33	Hot mix plants	75	Surgical and medical products (latex)
34	Ice cream	76	Synthetic detergents and soaps
35	Industry or processes involving foundry operations	77	Synthetic resins
36	Iodized salt from crude/ raw salt	78	Synthetic rubber excluding molding
37	Jute processing without dyeing	79	Teflon based products
38	large Bakery and confectionery	80	Thermocol manufacturing (with boiler)
39	Transformer repairing/ manufacturing	81	Thermometer
40	Tyres and tubes vulcanization/ hot retread	82	Tobacco products including cigarettes
41	Vegetable oil manufacturing	83	Tooth powder, toothpaste, talcum powder
42	Wire drawing and wire netting		

Table 3 : List of Green category of Industries

Sl. No.	Industry Sector	Sl. No.	Industry Sector
1	Aluminium utensils	36	Ready mix cement concrete
2	Ayurvedic medicines	37	Reprocessing of waste cotton

3	Small Bakery /confectionery	38	Rice mill (Rice hullers only)
4	PP film	39	Rolling mill (gas fired) and cold rolling mill
5	Biomass briquettes	40	Rubber goods (gas operated baby boiler)
6	Melamine resins	41	Saw mills
7	Brass and bell metal utensils	42	Soap manufacturing
8	Candy	43	Spice Blending
9	Cardboard / corrugated box	44	Spice grinding
10	Carpentry & wooden furniture	45	Steel furniture
11	Cement products	46	Grains processing
12	Ceramic colour by mixing	47	Tyres /tube retreating
13	Chilling plant and ice making	48	Chilling /ice plant
14	Coke briquetting	49	CO2 recovery
15	Small Cotton spinning and weaving	50	Distilled water
16	Dal Mills	51	Small Hotels
17	Decoration of ceramic cups	52	Optical lenses
18	Digital printing on PVC clothes	53	Mineralized water
19	Handling, storage of food grains	54	Tamarind powder
20	Flour mills	55	Marble stone
21	Electrical Glass , ceramic, earthen potteries	56	Emery powder
22	Glue from starch	57	Flyash export
23	Gold and silver smithy	58	Mineral stack yard
24	Non-polluting Heat treatment	59	Oil and gas transportation pipeline
25	Insulation /coated papers	60	Seasoning of wood
26	Leather foot wear /products	61	Synthetic detergent
27	Blending of Lubricating oil, greases	62	Tea processing
28	Pasted veneers	63	Pulverization of bamboo
29	Oil mill Ghani		
30	Packing materials		
31	Phenyl/toilet cleaner		
32	Polythene and plastic products		
33	Poultry, Hatchery and Piggery		
34	Power looms (without dye and bleaching)		
35	Puffed rice (muri) (gas or electrical heating)		

Table 4 : List of White category of Industries

Sl. No.	Industry Sector
1.	Air coolers /conditioners
2.	Bicycles ,baby carriages
3.	Bailing of waste papers
4.	Bio fertilizer /bio-pesticides
5.	Biscuits trays

6.	Blending / packing of tea
7.	Block making of printing
8.	Chalk making
9.	Compressed oxygen gas
10.	Cotton and woolen hosiers
11.	Diesel pump repairing
12.	Electric lamp (bulb) and CFL
13.	Electrical and electronic item
14.	Engineering and fabrication units
15.	Flavoured betel nuts
16.	Fly ash bricks/ block
17.	Fountain pen
18.	Glass ampules
19.	Glass putty and sealant
20.	Ground nut decorticating
21.	Handloom/ carpet weaving
22.	Leather cutting and stitching
23.	Coir items from coconut husks
24.	Metal caps containers etc
25.	Shoe brush and wire brush
26.	Medical oxygen
27.	Organic and inorganic nutrients
28.	Organic manure
29.	Packing of powdered milk
30.	Paper pins and u clips
31.	Repairing of electric motors /generators
32.	Rope (plastic and cotton)
33.	Scientific and mathematical instrument
34.	Solar module non-conventional energy apparatus
35.	Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)
36.	Surgical and medical products assembling

GUJARAT POLLUTION CONTROL BOARD
"PARVAVARAN BHAVAN"
SECTOR: 10-A, GANDHINAGAR-382010
: OFFICE ORDER:

No: GPCB/P-12/352040

Date: 12.04.2016

Ref: Office Circular no. 1) P/3287/1309 dtd. 13.9.1991

Office Circular no. 2) P/69318/Z/132851 dtd. 28.10.2002

The Gujarat Pollution Control Board has published a list of category of cottage and small scale industries having no pollution potential vice reference 12) above. Such industries are exempted from obtaining Consent to Establish from GPCB.

Now that the CPCB has published "Final document on Revised Classification of Industrial Sectors under Red, Orange, Green and White Category" on 29.2.2016 classifying various industries into Red, Orange, Green and White Categories. According to it's classification, the White category of industries do not require Consent to Establish and Consent to Operate permits from respective SPCBs.

The CPCB vide its letter no: B-29077-ESS/CPA/79/15-16/8570 dated 07.03.2016 also issued necessary directions under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 regarding harmonization of classification of industrial sectors under the Red, Orange, Green and White categories.

This matter was further discussed in Board's 210th meeting held on dt: 03.2016 and the Board has adopted the above classification and decided to exempt the White category of industries mentioned in the above mentioned documents of the CPCB from the requirement of Consent to Establish and Consent to Operate from the GPCB. Further the GPCB has also decided to add a few more industrial activities under White Category where there is absolutely no pollution potential and also decided that such industries

would not need Consent to Establish and Consent to Operate from the GPCB henceforth. A list of these industries which are exempted from obtaining the Consent to Establish and Consent to Operate are appended herewith at "Annexure I" to this Office Order.

Any further confusion leading to the classification of any industry which are otherwise not covered under the above mentioned document of CPCB would be brought to the notice of the Member Secretary, GPCB for putting up the Agenda in the committee constituted for "reorganization of industries" vide GPCB Office Order no P/14/13296 dated 10.7.2015. Further the respective Unit Heads / Regional Officers of the Board shall also bring any such case coming to their notice which are not directly covered under the Red/ Orange/ Green/ White categories or leading to any type of confusion to the notice of the Categorization Committee mentioned herein above.

Issued after the approval of the Chairman.

For & on behalf of
Gujarat Pollution Control Board

Sd/-
(HEARDIK SHIMJI)
Member Secretary

Encl. Annexure-I

Copy for:

1. All Taluka Development Officer
2. All District Development Officer
3. All District Collector
4. Gujarat Electricity Board, Vadodra
5. Dakhin Gujarat Vij Company Limited, Surat
6. Madhya Gujarat Vij Company Limited, Vadodra
7. Uda Gujarat Vij Company Limited, Mehsana
8. Paschim Gujarat Vij Company Limited, Rajkot
9. Torrent Power Limited, Ahmedabad/Surat
10. Secretary, Revenue Department
11. Additional Chief Secretary, Industries and Mines Department
12. Principal Secretary, Forests & Environment Department
13. All Industries Associations
14. All Regional Officer
15. All Unit Heads

: Annexure :

**List of Green Category Industries exempted from obtaining
Consent to Establish (CTE)**

&

Consolidated Consent & Authorization (CC&A)

**(List of Industries having no pollution potential)
(i.e. White Category)**

Sr. No.	Name and Type of Industrial Activities
1.	Agricultural services not elsewhere classified (like harvesting & threshing)
2.	Assembling units for TV, VCR, Radio sets, Tape Recorders, etc.
3.	Assembling units of air coolers/conditioners, Water coolers, Heaters, Electric irons as well as repairing and servicing.
4.	Assembly of bicycles, baby carriages and other small non motorizing vehicles
5.	Attar formulation units
6.	Button & hooks manufacturing units
7.	Bio fertilizer and bio-pesticides manufacturing units (without using inorganic chemicals)
8.	Discs/trays etc. manufacturing units (from roller PVC sheet using automatic vacuum forming machines)
9.	Block making of printing without foundry (excluding wooden block making)
10.	Cardamoms, Cumins, Turmeric, Salts grinding units
11.	Cotton ginning & pressing units
12.	Compressed oxygen gas manufacturing units from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other gases)
13.	Cotton & wooden hoses making units (dry process only without any dyeing / washing operation)
14.	Chalk making from plaster of Paris (only casting without boilers etc., sun drying / electrical oven)
15.	Computer and peripheral assembling units
16.	Ceramic products manufacturing by sun drying
17.	Common salt crushing and packing units
18.	Distributors of agricultural machinery and equipment
19.	Distributor of industrial machinery and equipment other than electrical
20.	D/G Set installation having capacity up to 1200 kVA
21.	Diamond Industries
22.	Diesel pump repairing & servicing centre (complete mechanical dry process)
23.	Embroidery work, zari work and ornamental trimmings carrying units (by hand)
24.	Engineering workshop, machine shop, fabrication shop, smithy shop, turning shop

Sr. No.	Name and Type of Industrial Activities
	cutting shop
25.	Footwear manufacturers from plastic / PVC
26.	Fabricating units for aluminum doors, windows and furniture (only assembling).
27.	Fabricating units for drawing, surveying and scientific equipment
28.	Fabricating units for iron doors and shutters (without electroplating spray painting & powder coating)
29.	Fabricating units for stove, cooker, kitchen equipment etc. (without electroplating, spray painting & powder coating)
30.	Fabricating units for tractor trailer, agricultural equipment etc. (without electroplating, spray painting & powder coating)
31.	Fabricating units for vehicle parts without electroplating, heat treatment, spray painting and powder coating
32.	Fountain pen manufacturing units (assembling only)
33.	Frying of dals and other cereals n.e.c.
34.	Electric lamp (bulb and CFL) manufacturing units (assembling only)
35.	Electro magnets, fans, armature, coils and electro-magnetic instruments (assembling only)
36.	Electrical & electronic item assembling (completely dry process)
37.	Engineering & fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)
38.	Furniture & interior
39.	Flavored nuts production / grinding units (completely dry mechanical operations)
40.	Fly ash bricks / block manufacturing units
41.	Glass ampoules and vials making units from glass tubes
42.	Generation of energy through wind mills
43.	Glass putty and sealant manufacturing units (by mixing with machine on y)
44.	Groundnut decorticating units (on y dry process)
45.	Handloom carpet weaving units (without dyeing and bleaching operation)
46.	Inland water fishing
47.	Industrial items from any recycling plastics by fabrication process on y
48.	Jute and natural fiber goods making units
49.	Jute and mesta pressing and baling units
50.	Leather cutting and stitching units (Less than 10 machines using motor)
51.	Mamra manufacturing units
52.	Making of laces and fringes by hand
53.	Manufacturing units of Articles of paper (used as containers)
54.	Manufacturing units of Agarbatti
55.	Manufacturing units of straw, basketware and wickerware
56.	Manufacturing units of blankets, shawls, carpets, rugs (only weaving)
57.	Manufacturing units of purses and ladies handbags, artistic leather presentation from ready leather
58.	Manufacturing of blankets and shawls by hand
59.	Manufacturing of cotton carpets by hand

Sr. No.	Name and Type of Industrial Activities
60.	Manufacturing of matches on cottage scale
61.	Manufacturing of woolen carpets by hand
62.	Manufacturing of silk carpets by hand
63.	Manufacturing of dunnies, druggets and rugs by hand
64.	Manufacturing of raincoats, hats, caps and school bags
65.	Manufacturing of made-up textile articles (without bleaching, dyeing & printing)
66.	Manufacturing of curtains, bed-covers and furnishings of hand embroidered
67.	Manufacturing of curtains, bed-covers and furnishings of hand printed (without dyeing & printing)
68.	Manufacturing of crocheted made-up textile goods, except apparel
69.	Manufacturing of made-up canvas goods such as tents and sails etc.
70.	Manufacturing of candles on cottage scale
71.	Manufacturing of furniture from bamboo (Without pulverization)
72.	Manufacturing of glass bangles
73.	Manufacturing of glass decoration pieces
74.	Manufacturing of gypsum boards
75.	Manufacturing of rolling shutters of iron or steel (without spray painting)
76.	Manufacturing of locks (without electroplating / anodising)
77.	Manufacturing of oil stoves (pressure and non-pressure)
78.	Manufacturing of carrom boards and tables for billiards, table tennis and others
79.	Manufacturing of billiard sticks, hockey sticks, cricket bats, stumps and others
80.	Manufacturing of rackets for badminton, lawn tennis, table tennis, etc.
81.	Manufacturing of bats including those of billiards
82.	Manufacturing of brushes, brushes and similar articles of feathers
83.	Manufacturing of advertising sign-boards and displays etc.
84.	Manufacturing of garment by stitching from ready cloth
85.	Manufacturing of hosiery items / garments by stitching only
86.	Manufacturing of musical instruments
87.	Manufacturing of paper napkins, dishes, plates, paper rolls from ready paper
88.	Manufacturing of stove wicks
89.	Manufacturing of sports kit
90.	Paper pins and needles
91.	Manufacturing of toys (only assembling)
92.	Manufacturing of umbrellas (only assembling)
93.	Manufacturing of market basketry, grain storage bins, raton baskets and similar
94.	Manufacturing from cane and bamboo of shopping bags, ornament boxes
95.	Manufacturing of articles made of palm leaf, screw pine leaf and khajoor leaf
96.	Manufacturing of wooden industrial fixtures such as bobbins, spools, sewing meter
97.	Manufacturing of wooden tool handles
98.	Manufacturing of broomsticks
99.	Manufacturing of wooden toys, decoration pieces and wooden lamp stands, etc.
100.	Manufacturing of wooden agricultural implements
101.	Manufacturing of other wooden household products n.e.c.
102.	Manufacturing of paper cups, saucers, plates and other similar products
103.	Manufacturing of coir items from coconut husk

Sr. No.	Name and Type of Industrial Activities
104.	Manufacturing of domestic flour mill (without plating, electroplating and heat treatment)
105.	Manufacturing of fork-knife, scissors
106.	Manufacturing of frames for spectacles (only assembling)
107.	Manufacturing of shoe brush & wire brush
108.	Manufacturing of all types of threads, cordage, twines etc.
109.	Manufacturing of weighing machines
110.	Manufacturing of bullock-carts, push-carts and hand-carts etc.
111.	Manufacturing of coir rope and cordage
112.	Manufacturing of other rope and cordage including that of jute / mesta and coir
113.	Manufacturing of nets (except mosquito nets)
114.	Manufacturing of tapes, niwar and wicks etc.
115.	Manufacturing of handicraft / decorative / fancy items. n.e.c.
116.	Motor Rewinding
117.	Manufacturing of metal caps, containers etc.
118.	Measuring / controlling / regulating instruments manufacturing units
119.	Medical oxygen
120.	Manufacturing of photo frame, mirror frame
121.	Manufacturing of boora
122.	Manufacturing of screw, nut-bolts etc.
123.	Manufacturing of cement concrete pipe, snail pipe, mosaic tiles, pillars
124.	Manufacturing of block-set of cement concrete
125.	Manufacturing of pickle and packed up to 500 kg/day
126.	Non-Electrical machine tools manufacturing units
127.	Non-Motorized cycles / wire chairs & parts manufacturing
128.	Ocean, sea and coastal fishing
129.	Organic & inorganic nutrients manufacturing (by physical mixing)
130.	Organic manure manufacturing (manual mixing)
131.	Painting and decorating work for constructions
132.	Production of firewood / fuel wood (including charcoal by burning) by exploitation
133.	Packing of powdered milk
134.	Pump and motor assembling units
135.	Processing of dry rice
136.	Processing of edible nuts except oil expeller
137.	Processing of groundnuts except oil expeller
138.	Printed books, Notebooks, Registers and other printed materials
139.	Printing of cloth by hand
140.	Newspaper printing press
141.	Rope (plastic and cotton)
142.	Repairing of electric motors & generators (dry mechanical process)
143.	Silk, cotton and other materials apparel manufacturing units
144.	Sun drying of fruits & vegetables
145.	Sun drying of fish
146.	Salt manufacturing at cottage scale
147.	Salt quarrying and screening etc.

Sr. No.	Name and Type of Industrial Activities
148.	Soil conservation services
149.	Scientific services like soil testing
150.	Soil desalination services
151.	Scientific & mathematical instrument manufacturing
152.	Solar module non conventional energy apparatus manufacturing unit
153.	Stainless steel in primary and finished forms
154.	Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)
155.	Spinning, weaving and finishing of coir textiles
156.	Spinning, weaving and finishing of sann hemp and other vegetable fibre textile
157.	Surgical and medical products assembling only (not involving effluent / emission generating processes)
158.	Tea blending & packaging units
159.	Transformer assembling units
160.	Timber works such as fixing of doors, windows and panels etc.
161.	Units doing book-binding, making file covers, envelopes, paper bags from paper or board
162.	Units carrying Electrical installation work for constructions
163.	Various types of Hand Tools manufacturing
164.	Warehousing of agricultural products without refrigeration
165.	Wool spinning, weaving and finishing other than in mills
166.	Weaving and finishing of cotton khac
167.	Workshop for vehicles repairing
168.	Waste papers baling process (hydraulic press)

Annexure 2

Site Photographs taken during Due-Diligence Site Visit



Approach to Project Site



Internal Road at the site



Layout Plan of the 25MWp Solar Power Plant at Surendranagar District, Gujarat



EHS Guidelines and Safety Equipments



Commissioned Solar Power Plant at Surendranagar, Gujarat



Switch Yard

Annexure 3
CTE & CTO for SPCB

REGIONAL OFFICE

GUJARAT POLLUTION CONTROL BOARD
JADESHWAR SOCIETY, NEAR PTC HOSTEL WADHAWAN,
SURENDRANAGAR – 363 030. PHONE:(02752) 242121

“Consent to Establish” (NOC)

NO: GPCB/NOC/SRN-989/ **596 / 06 JUN 2012**

CTE NO.12853

TO,

M/s. Chattel Constructions Private Ltd.
 Sr.No.247/p/2,280,277/1,244,275/p/2,
 Vill.Kathada-Ahmedgadh, Tal.Dasada
 Dist: Surendranagar.

Sub: Consent to Establish under Section 25 of Water Act 1974 and Section 21 of Air Act 1981

Ref: (1) Your application dated 15-06-2012 for NOC.

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants **Consent to Establish** for setting up of an industrial plant/activities located r.No.247/p/2,280,277/1,244,275/p/2, Vill.Kathada-Ahmedgadh, Tal.Dasada Dist: Surendranagar for the manufacturing of the following items. The Validity period of the order will be Five years from date of issue i.e. up to 14/06/2017.

Sr. No.	Product	Capacity
1	Solar Photovoltaic Power	25 MW

Special Condition: -

Industry shall not start production activity before obtaining NOC of Forest Dept. GOG regarding Wild Ass Century.

CONDITIONS UNDER WATER ACT 1974:-

1. There shall be no generation of the industrial effluent from the manufacturing process and other ancillary industrial operations.
2. There shall not be any discharge of industrial effluent from manufacturing process and ancillary activities.
3. The quantity of the domestic waste water (sewage) shall not exceed 150 liters/day.
4. Sewage shall be disposed of through septic tank/soak pit system.

CONDITIONS UNDER AIR ACT 1981:

5. There shall not be use of any type of fuel hence no flue gas emission.
6. There shall be no process emission from the manufacturing process as well as any other ancillary process.
7. The concentration of the following substances in the ambient air within the premises of the industry and at a distance of 10 meters from the source (other than the stack / vent with height of more than 9 meters from the ground level) shall not exceed the following levels:

<u>PARAMETERS</u>			<u>PERMISSIBLE LIMIT</u>	<u>PERMISSIBLE LIMIT</u>
			<u>annual</u>	<u>24 hrs.average</u>
Particulate Matter (pm10)	10		60 Microgram/NM ³	100 Microgram/NM ³
Particulate Matter (pm2.5)	2.5		40 Microgram/NM ³	60 Microgram/NM ³
SO ₂			50 Microgram/NM ³	80 Microgram/NM ³
NO _x			40 Microgram/NM ³	80 Microgram/NM ³

8. All measures for the control of environmental pollution shall be provided before commencing production.

CONDITIONS UNDER HAZ. WASTE:

9. Applicant shall have to comply with provisions of H.W. (M & H and Trans boundary movement) rules 2008 as amended from time to time.
 - a. Industry shall provide adequate collection, Storage, Treatment & Transportation system in accordance with the nature, quantity & compatibility of hazardous waste and shall offer their hazardous waste only to authorized operator of the ultimate disposal facility.
 - b. Applicant shall comply all the directives issued by Honorable Courts, notifications issued by Ministry of Environment & Forest, Department of Environment & Forest, Central Pollution Control Board and other competent authorities time to time.
 - c. Applicant shall comply all the guidelines published by Ministry of Environment & Forest, Department of Environment & Forest, Central Pollution Control Board and other competent authorities time to time.
 - d. Industry shall also comply following directives issued by the Supreme Court of India dated.14.10.2003.
 - i. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No.657 of 1995 dated 14th October 2003.
 - ii. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous

chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

GENERAL CONDITION:

10. Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is atleast 1000 trees per acre of land and a green belt of **10 meters** width is developed.
11. The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.
12. In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.
13. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.
14. The applicant also comply with the General conditions as per Annexure - I attached herewith (No.1 to 38) (whichever applicable).
15. The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:
Between 6 A.M. and 10 P.M.: 75 dB (A)
Between 10 P.M. and 6 A.M.: 70 dB (A)
16. Applicant is required to comply with the manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.
17. If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.

**For and on behalf of
Gujarat Pollution Control Board**


(A.M. Gadhiya)
Regional Officer

COPY TO:

1. The Member Secretary, G.P.C.B. Head Office, Gandhinagar for inf. Pl.
2. Select file



GUJARAT POLLUTION CONTROL BOARD

JADESHWAR SOCIETY, NEAR PTC HOSTEL WADHAWAN,

SURENDRANAGAR – 363 030. PHONE:(02752) 242121

07 No 8

10 8 JAN 2013

By R.P.A.D.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 3(c) & 5(5) of the Hazardous Waste (Management Handling and Transboundary Movement) Rules'2008, framed under the E (P) Act-1986.

And whereas Board has received on line consolidated application Inward ID No. **60741** Dated: **28-08-2012** for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts Consent & Authorization is hereby granted as under.

CONSENT AND AUTHORISATION:

(Under the provisions / rules of the aforesaid environmental acts)

To,
 ✓ M/s. Chattel Construction Pvt Ltd
 RS No: 247/P-2, 280, 277/1, 244, 275/P-2
 Village: Kathada & Ahmedgadh, Ta: Dasada,
 Dist: Surendranagar.

1. Consent Order No. : **AW -13609** Date of Issue: **08-01-2013**.
2. The consents shall be valid up to **02-01-2018** for discharge of effluent & emission due to operation of industrial plant for manufacture of the following products:

Sr. No.	Product	QUANTITY
1	Solar Energy	25 MW Solar PV Plant

Industry

[Handwritten signatures]

SPECIFIC CONDITION:

1. Industry shall have to submit NOC Forests and Environment Department, Government of Gujarat.

3 CONDITIONS UNDER THE WATER ACT:

- 3.1 There shall be no generation of industrial effluent from manufacturing activity.
- 3.2 The quantity of sewage from the factory shall not exceed 250 Liter / Day and shall be disposed through septic tank / soak pit system.

4.0. CONDITIONS UNDER THE AIR ACT:

Industry shall strictly obey the undertaking given that they are not covered under the Air Act 1981.

- 4.1 There shall not be use of any fuel and hence there shall be no flue gas emission.
- 4.2 There shall be no process emission from the manufacturing process and other ancillary industrial operations.
- 4.2.1 Ambient air quality within the premises of the industry (for 24 hours) shall conform to the following standards:-

PARAMETER	PERMISSIBLE LIMIT ANNUAL	PERMISSIBLE LIMIT 24 HRS. AVERAGE
Particulate matter-10[PM10]	60 Microgram /NM ³	100 Microgram /NM ³
Particulate matter-2.5[PM2.5]	40 Microgram /NM ³	60 Microgram /NM ³
Oxides of Sulphur	50 Microgram /NM ³	80 Microgram /NM ³
Oxides of Nitrogen	40 Microgram /NM ³	80 Microgram /NM ³

- 4.2.3. The applicant shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition no. 4.2.1 above.



- 4.2.4. The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified in the condition no.4.2.1
- 4.3 The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.
- 4.4 The Industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 5 Industry shall strictly obey the undertaking given that they are not covered under the Hazardous waste [Management, Handling & Transboundary Movement] Rules-2008 as amended time to time.**

6 GENERAL CONDITIONS: -

- 6.1 Any change in personnel, equipment or working conditions as mentioned in the Consents form/order should immediately be intimated to this Board.
- 6.2 Applicant shall also comply with the general conditions as given in Annexure-1.
- 6.3 The waste generator shall be totally responsible for (i.e. Collection, Storage, transportation and ultimate disposal) of the wastes generated.
- 6.4 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control board in Form-4 by 31 st January of every year.
- 6.5 In case of any accident, details of the same shall be submitted in Form-5 to Gujarat Pollution Control Board.
- 6.6 As per "Public liability Insurance Act-91" company shall get Insurance policy, if applicable.
- 6.7 Empty drums and containers of toxic and hazardous material shall be treated as per guidelines published for "Management & Handling of Discarded Containers". Discarded containers may be given to and/ sold to registered decontamination facilities for decontamination, if not, decontamination at their own sites as per this office circular No: GPCB/HAZ/GEN-264/13223/2009. Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 6.8 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.



- 6.9 In case of transport of hazardous waste to a facility for (i.e. Treatment, storage and Disposal) existing in a state other than the state where hazardous waste are generated, the occupier shall obtained " No Objection Certificate" from the state Pollution Control Board, the committee of the concerned state or Union Territory Administration where the facility exist.
- 6.10 Unit shall take all concrete measures to show tangible results in waste generation reduction, avoidance, reuse and recycle. Action taken in this waste shall be submitted within 03 months and also along with Form-4.
- 6.11 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon Supreme Court's order in W.P. No: 657 of 1995, dated 14th October 2003.
- 6.12 Industry shall have to display on line data outside the main gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.

For and on behalf of
Gujarat Pollution Control Board



(K R Upadhyay)
Regional Officer

NO.GPCC/RO-SRN-989 /GPCB Id-38208/

ISSUED TO:

M/s. Chattel Construction Pvt Ltd

RS No: 247/P-2, 280, 277/1, 244, 275/P-2

Village: Kathada & Ahmedgadh , Ta: Dasada,

Dist: Surendranagar.

Copy To: 1) The Member Secretary, GPCB, Head Office, Gandhinagar
2) Select file
3) File copy (o/c)

Annexure 4

Filled in Rapid Environmental & Social Assessment Check list

Rapid Environmental Assessment (REA) Checklist

Country:

LOAN 3186 (IND): 25 MWp Solar PV Power Project at Surendranagar District, Gujarat State

Subproject Title:

25 MWp Solar PV Power Project at Surendranagar District, Gujarat State

DATE::

9th September, 2016

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			The Project site spread over an area of 216 acres of land located in Surendranagar District, Gujarat. The project has since been commissioned in January 10, 2013
Physical cultural heritage site		√	The project site has no cultural heritage site, special habitats for biodiversity, special habitat areas, wetlands, mangroves or estuaries or coastal areas within a radius of 10 km.
Located in or near to legally protected area		√	Not Applicable. The 10km radius from project site skirts the boundary of Thol Lake Bird Sanctuary and 30km radius skirts Wild Ass Sanctuary
Located in or near to special habitats for biodiversity (modified or natural habitats)		√	Not Applicable
Wetland		√	Not Applicable
Mangrove		√	Not Applicable
Estuarine		√	Not Applicable
Offshore (marine)		√	Not Applicable
B. Potential Environmental Impacts Will the Project cause...			
large scale land disturbance and land use impacts specially due to diversion of productive lands?		√	The project development has caused no impacts as the land is single cropped rain dependent agricultural lands. The mean normal annual rainfall of the Project region is less than 600 mm. Also, project development has not altered the existing landform and has used the existing terrain to install the solar panels.
involuntary resettlement of people? (physical displacement and/or economic displacement)		√	None. The project has not caused any involuntary resettlement /displacement of people and lands have been procured based willing seller and willing buyer principle. However, this aspect has been further detailed under social safeguards due diligence report.

Screening Questions	Yes	No	Remarks
disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	This aspect will be separately assessed during social safeguards due diligence by social safeguards specialist. The project, which has been commissioned in January 10, 2013 is providing employment opportunities to local people and have engaged them in the operation and maintenance of the project.
noise, vibration and dust from construction activities?		√	There are no human settlements within 1 Km radius of project site. The construction of project does not warrant large scale earth work excavation and/or filling activities, which may lead to dust, noise and other related impacts. At the time of due diligence, the project was in operation phase, having been commissioned in January 2013.
an increase in local traffic during construction?	√		The impacts limited to construction phase for the transportation of construction materials, plant and machinery required for erection of the plant. At the time of due diligence, the project was in operation phase, having been commissioned in January 2013.
environmental disturbances such as soil erosion, land contamination, water quality deterioration, air pollution, noise and vibrations during construction phase?		√	The environmental disturbances will be almost insignificant as the construction and erection of solar power project does not involve any major civil works and all construction related impacts mitigated/controlled through site specific management measures. Moreover, there are no human settlements within 1 Km radius of project site.
aesthetic degradation and property value loss due to establishment of plant and ancillary facilities?		√	There is no existing human settlement within 1-2 Km radius of Project location. Therefore, aesthetic degradation and property loss due to project are not anticipated
changes in flow regimes of the water intake from surface water or underground wells due to abstraction for cooling purposes?		√	The project does not involve any changes to surface water flow regimes. The water requirements of the project, for periodic cleaning of panels is met through existing tube wells from nearby wells and outsourced to local people as service providers
pollution of water bodies and aquatic ecosystem from wastewater treatment plant, from cooling towers, and wash-water during operation?		√	The project does not generate any polluted or liquid waste effluents.
a threat to bird or bat life from colliding with the project facilities and/or being burned by concentrated solar rays?		√	Not relevant as the solar panels installed at the plant does not cause any such impacts. Consultations with the operational personnel of the project has not observed any fatalities to bird or bats in the last 2-3 years of operation (since January 2013).

Screening Questions	Yes	No	Remarks
industrial liquid (dielectric fluids, cleaning agents, and solvents) and solid wastes (lubricating oils, compressor oils, and hydraulic fluids) generated during construction and operations likely to pollute land and water resources?		√	Not relevant
Soil/water contamination due to use of hazardous materials or disposal of broken or damaged solar cells (photovoltaic technologies contain small amounts of cadmium, selenium and arsenic) during installation, operation and decommissioning?		√	Not relevant
noise disturbance during operation due to the proximity of settlements or other features?		√	No settlements are located within a radius of 1 Kms from the Project site. Also, the project does not have major plant & machinery, causing significant noise and vibrations.
visual impacts due to reflection from solar collector arrays resulting in glint or glare?		√	Not relevant as there are no human settlements in and around the proposed site within a radius of 1 km.
large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		√	Not relevant
social conflicts between local laborers and those from outside the area?		√	Not relevant. Project has provided employment opportunities to local people to the extent possible in all aspects of operation and maintenance phase.
risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during construction, installation, operation, and decommissioning?		√	None
risks to community health and safety due to the transport, storage, and use and/or disposal of materials and wastes such as explosives, fuel and other chemicals during construction, and operation?		√	None
community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		√	None

A Checklist for Preliminary Climate Risk Screening

Country/Project Title: LOAN 3186(IND): 25 MWp Solar PV Power Project at Surendranagar District, Gujarat State

Sector:

Subsector:

Division/Department: Energy Division, South Asia Department

Screening Questions		Score	Remarks ¹
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	Not applicable to this Project. The site is not located in a flood prone or land slide area. Although, the project region, reportedly will experience a few dust storms, every year. However, no losses to civil structures or property loss or natural calamity has occurred as a result of dust storms.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	All Civil Structures within the Project site are designed for wind load/speed and Earthquake resistant design.
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	The variations in the climatic conditions like extent of cloud cover, or sun shine, dust storms will have bearing on capacity utilization factor (CUF) of the Project. However, the Project design considers all such data and variations (based on historical database) as well as actual measurements at project site and therefore any such changes/variations are deemed to be already considered in the project.
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	Not likely all the known historical variations /extreme conditions will be considered in scheduling and costing of the project
Performance of	Would weather/climate conditions, and		The variations in the climatic

¹ If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

project outputs	related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	conditions like extent of cloud cover, or sun shine, dust storms will have bearing on capacity utilization factor (CUF) of the Project. However, the Project design considers all such data and variations (based on historical database) as well as actual measurements at project site and therefore any such changes/variations are deemed to be already considered in the project. Not likely for the reasons mentioned above
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Options for answers and corresponding score are provided below:



Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High): ✓ **LOW**

Prepared by: HARI PRAKASH,
Environmental Specialist
ADB TA Consultant

ENVIRONMENTAL CATEGORIZATION FORM

A. Instructions The project team completes and submits this form to the Environment and Social Safeguard Unit (ESSU) for endorsement and for approval by the Chief Compliance Officer (CCO). The classification of a project is a continuing process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and requests for recategorization, and endorsement by ESSU. The old form is attached for reference. The project team indicates if the project requires broad community support (BCS) of tribal peoples communities. BCS is required when project activities involve (a) commercial development of the cultural resources and knowledge of indigenous peoples, (b) physical displacement from traditional or customary lands; and (c) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual use that define the identity and community of indigenous peoples.			
B. Project Data			
Borrower: IREDA, MNRE, Govt. of India		Financing Amount:	
Technology: Crystalline		Address/Contact:	
C. Subject			
<input checked="" type="checkbox"/> Environment		<input type="checkbox"/> Involuntary Resettlement	
<input type="checkbox"/> Indigenous (Tribal) People			
C. Categorization			
<input checked="" type="checkbox"/> New		<input type="checkbox"/> Re-categorization — Previous Category	
<input type="checkbox"/> Category A		<input checked="" type="checkbox"/> Category B	
<input type="checkbox"/> Category C			
D. Basis for Categorization/ Recategorization (pls. attach documents): <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <input checked="" type="checkbox"/> Checklist and Type of Check List: Filled in REA Checklist <input checked="" type="checkbox"/> Project and/or Site Description: Brief write up on the observations made during the visit to Project site along with applicable Country Regulatory required materials are given in Annexure-1. <input type="checkbox"/> Other (e.g., due diligence): _____ </div> <div style="width: 55%;"></div> </div>			
E. Comments			
Technical Team		ESSU Comments	
F. Approval			
Proposed by: Technical Team Leader: HARI PRAKASH Date:  Endorsed by: _____ Director of Technical Date: _____		Endorsed by: Head, ESSU: KHEKIHO YEPHTHO Date:  <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> Approved by (Optional): _____ Compliance Officer (if different) Date: _____ </div> <div style="width: 35%; text-align: center;"> ADB Concurrence </div> </div>	

SOCIAL SAFEGUARDS SCREENING CHECKLIST

Subproject: 25 MW Solar Photovoltaic Power Project at Kathada, Ahmedgarh and Savda Village in Surendranagar in the State Of Gujarat (India)

I. Involuntary Resettlement Impact Checklist

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?	√			This is not an involuntary acquisition of land. Private land and are directly purchased from landowners on willing buyer – willing seller basis.
2. Is the site for land acquisition known?	√			Yes it is in Kathada, Ahmedgadhd and Savda villages in Surendranagar District in the state of Gujarat
3. Is the ownership status and current usage of land to be acquired known?	√			Privately owned land
4. Will easement be utilized within an existing Right of Way (ROW)?		√		
5. Will there be loss of shelter and residential land due to land acquisition?		√		
6. Will there be loss of agricultural and other productive assets due to land acquisition?		√		The land are low productive land
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		√		
8. Will there be loss of businesses or enterprises due to land acquisition?		√		
9. Will there be loss of income sources and means of livelihoods due to land acquisition?		√		
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?		√		
11. If land use is changed, will it have an adverse impact on social and economic activities?		√		
12. Will access to land and resources owned communally or by the state be restricted?		√		
Information on Displaced Persons:				

Any estimate of the likely number of persons that will be displaced by the Subproject?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
If yes, approximately how many? _____		
Are any of them poor, female-heads of households, or vulnerable to poverty risks?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Are any displaced persons from indigenous or ethnic minority groups?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes

2. Indigenous Peoples Impact Screening Checklist

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
Indigenous Peoples Identification				
1. Are there socio-cultural groups present in or use the subproject area who may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the subproject area?		√		
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the subproject area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				Not Applicable
3. Do such groups self-identify as being part of a distinct social and cultural group?				Not Applicable
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				Not Applicable
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				Not Applicable
6. Do such groups speak a distinct language or dialect?				Not Applicable
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				Not Applicable
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?				Not Applicable
B. Identification of Potential Impacts				
9. Will the subproject directly or indirectly benefit or target Indigenous Peoples?				Not Applicable
10. Will the subproject directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)		√		

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
11. Will the subproject affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)		√		
12. Will the subproject be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?		√		
C. Identification of Special Requirements <i>Will the subproject activities include:</i>				
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?		√		
14. Physical displacement from traditional or customary lands?		√		
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?		√		
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples ?		√		
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples ?		√		



D. Anticipated subproject impacts on Indigenous Peoples

Subproject component/ activity/ output	Anticipated positive effect	Anticipated negative effect
1. Establishment of Wind Power Plant	Indirect only as it is power generation only and not related to distribution system.	None
2. Land requirement	None	No IP community land involved and affected.

INVOLUNTARY RESETTLEMENT (IR) CATEGORIZATION FORM

A. Instructions The project team completes and submits this form to the Environment and Social Safeguard Unit (ESSU) for endorsement and for approval by the Chief Compliance Officer (CCO). The classification of a project is a continuing process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and requests for re-categorization, and endorsement by ESSU. The old form is attached for reference. The project team indicates if the project requires broad community support (BCS) of tribal peoples communities. BCS is required when project activities involve (a) commercial development of the cultural resources and knowledge of indigenous peoples, (b) physical displacement from traditional or customary lands; and (c) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual use that define the identity and community of indigenous peoples.				
B. Project Data				
Orange Anantapur Power (P) Limited Technology: Photovoltaic Solar Power Project	Financing Amount: Address/Contact: Hindustan Cleanenergy Limited 239, Okhla Industrial Estates, Phase III, New Delhi – 110020, India Tel: 011-47624100 Extn. 105 I (D)011-47624105 Fax: 011-47624229 Website: www.hindustanpowerprojects.com			
C. Subject				
<input type="checkbox"/> Environment <input checked="" type="checkbox"/> Involuntary Resettlement <input type="checkbox"/> Indigenous People				
C. Categorization				
<input type="checkbox"/> New <input type="checkbox"/> Re-categorization — Previous Category				
<input type="checkbox"/> Category A <input type="checkbox"/> Category B <input checked="" type="checkbox"/> Category C				
D. Basis for Categorization/ Re-categorization (pls. attach documents): <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;"> <input checked="" type="checkbox"/> [√] <input type="checkbox"/> [] <input type="checkbox"/> [] </div> <div> Checklist and Type of Check List: <u>Social Safeguard Screening</u> Project and/or Site Description: _____ Other (e.g., due diligence): _____ </div> </div>				
E. Comments				
Technical Team	ESSU Comments No involuntary land acquisition for the plant. The developer purchased Private land directly from landowners by paying negotiated market value on willing seller- willing buyer basis. No involuntary resettlement arises in the project.			
F. Approval				
Proposed by: Technical Team Leader: M K MOHANTY Date:  Endorsed by: _____ Director of Technical Date: _____	Endorsed by: Head, ESSU: KHEKIHO YEPHTO Date:  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px; vertical-align: top;"> Approved by (Optional): _____ Compliance Officer (if different) Date: _____ </td> <td style="width: 30%; padding: 5px; vertical-align: top;"> ADB Concurrence </td> </tr> </table>		Approved by (Optional): _____ Compliance Officer (if different) Date: _____	ADB Concurrence
Approved by (Optional): _____ Compliance Officer (if different) Date: _____	ADB Concurrence			

INDIGENOUS PEOPLES CATEGORIZATION FORM

A. Instructions The project team completes and submits this form to the Environment and Social Safeguard Unit (ESSU) for endorsement and for approval by the Chief Compliance Officer (CCO). The classification of a project is a continuing process. If there is a change in the project components or/and site that may result in category change, the concerned unit must submit a new form and requests for re-categorization, and endorsement by ESSU. The old form is attached for reference. The project team indicates if the project requires broad community support (BCS) of tribal peoples communities. BCS is required when project activities involve (a) commercial development of the cultural resources and knowledge of indigenous peoples, (b) physical displacement from traditional or customary lands; and (c) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual use that define the identity and community of indigenous peoples.			
B. Project Data			
Borrower: Orange Anantapur Power (P) Limited		Financing Amount:	
Technology: Photovoltaic Solar Power Project		Address/Contact: Hindustan Cleanenergy Limited 239, Okhla Industrial Estates, Phase III, New Delhi – 110020, India Tel: 011-47624100 Extn. 105 I (D)011-47624105 Fax: 011-47624229 Website: www.hindustanpowerprojects.com	
C. Subject			
<input type="checkbox"/> Environment		<input type="checkbox"/> Involuntary Resettlement	
		<input checked="" type="checkbox"/> Indigenous (Tribal) People	
C. Categorization			
<input checked="" type="checkbox"/> New <input type="checkbox"/> Re-categorization — Previous Category			
<input type="checkbox"/> Category A		<input type="checkbox"/> Category B	
		<input checked="" type="checkbox"/> Category C	
D. Basis for Categorization/ Re-categorization (pls. attach documents):			
<input checked="" type="checkbox"/> Checklist and Type of Check List: <u>Indigenous Peoples Screening Checklist</u>			
<input type="checkbox"/> Project and/or Site Description: _____			
<input type="checkbox"/> Other (e.g., due diligence): _____			
E. Comments			
Technical Team		ESSU Comments No indigenous people are present in the subproject area and none of the land purchased for the subproject belongs to the ST community. Hence, there is no issue of indigenous people has been identified under the subproject.	
F. Approval			
Proposed by: Technical Team Leader: M K MOHANTY Date:  Endorsed by:		Endorsed by: Head, ESSU: KHEKIHO YEPTHO Date: 	
		Approved by (Optional):	
Director of Technical Date:		Compliance Officer (if different) Date:	
		ADB Concurrence	

ENVIRONMENTAL SAFEGUARDS AUDIT REPORT

ENVIRONMENTAL AUDIT SAFEGUARDS REPORT

ON

Subproject: 25 MWp Solar PV Power Project Surendranagar, Gujarat State

Subproject Developer: Chattel Constructions Private Limited

JANUARY 2016

Prepared by

ESSU, IREDA

3rd Floor, August Kranti Bhavan, Bhikaji Cama Place
New Delhi 110 066

EXECUTIVE SUMMARY

IREDA is a Public Limited Government Company established in 1987, under the administrative control of MNRE (Ministry of New and Renewable Energy), GoI to promote, develop and extend financial assistance for renewable energy and energy efficiency/conservation projects. In line with its corporate objectives, IREDA is financing the 25 MWp Solar PV Power Project based on crystalline technology being developed in Gujarat State by Chattel Constructions Private Limited.

M/s Chattel Constructions Pvt. Ltd. is a SPV incorporated on 22nd June 2010 by promoter company M/s Hindustan Clean Energy Limited to set up 25MW solar power project at Surendranagar District in the state of Gujarat, using crystalline technology. The construction of the subproject was commenced in August 2012 and commercial operations date(COD) was achieved in January 2013. At present, the project is fully operational and functioning to its installed capacity and power is being evacuated to the grid as in accordance with its power purchase agreement with the Gujarat Urja Vikas Nigam Limited.

An environmental safeguards audit was conducted by ESSU (Environmental and Social Safeguards Cell) at IREDA to check and ensure subproject's compliance to the IREDA's ESMS agreed upon with ADB as well as ADB's Safeguards Policy Statement (SPS), 2009. The environmental safeguard audit of the subproject was undertaken during January 2016 with the following objectives:

- Identify the environmental safeguards concerns and environmental impacts due to subproject construction and operation
- Determine whether sub project actions comply with IREDA's ESMS agreed upon with ADB as well as ADB's Safeguards Policy Statement (SPS), 2009 and requirements;
- Prepare a CAP (corrective action plan), if any required, containing necessary remedial actions and ensure subproject's compliance to CAP during subsequent periodic safeguards audits

The audit comprised of visit to the sub project location, inspections/field assessments in and around the subproject, informal consultations with landowners and local community members; meetings with the developer's sub project in-charge at site as well as senior management at their corporate office, review of project documentation being maintained at subproject among others.

The environmental safeguard audit findings are hereunder;

- The subproject has been constructed over 216 acres of rain dependent single cropped agricultural land, which was devoid of any large trees and vegetative cover. The construction of subproject did not require felling of any trees. The subproject site is well connected to the National Highway through all-weather bituminous road and no new access roads were to be constructed specifically for subproject.
- The subproject is exempted from the prior environmental clearances from the Ministry of Environment, Forests and Climate Change, Government of India and outside the purview of EIA Notification.

- As the subproject is exempted from Environmental Clearances, developer has not commissioned any EIA studies as it is not warranted as a regulatory requirement. However, the subproject, has received the consent to establish (CTE) and Consent to Operate (CTO) from the State Pollution Control Board. The developer, as their corporate policy is committed to comply with IFC's Environmental, Health and Safety Guidelines and as required by IREDA for the subproject
- The subproject has no National Park or Wildlife Sanctuary or ecologically sensitive areas or protected archeological or historical monuments within a radius of 10 km. The subproject construction did not impact any religious structures or worship places or places of importance/value to the local populace. The subproject site is not reported to be falling along the migrant route any threatened/protected wildlife. No perennial or seasonal rivers/streams flow within a region of 10 km radius surrounding the sub project site.
- As assessed during audit, construction of subproject has not involved any significant earth work excavation/filling or major construction activities, except to even out and level the ground for installing solar PV panels on prefabricated metallic frames.
- The developer has opted for manual mopping of panels through wet micro fibers for periodic cleaning of solar PV panels as a water conservation measure instead of hydrant and sprinkler network, which require comparatively more water.
- The developer has informed that since its commissioning in Jan 2013, there has been no health, safety issues or incidents at the project site. Periodic orientation to workforce is being provided on EHS issues. All the staff at subproject site are orally briefed about safety aspects and to avoid high voltage areas within the subproject premises.
- As the project has regulatory exemptions from both centre and state levels, developer has informed that no environmental monitoring (air and noise levels) has been carried out during construction as well as during present operation phase.
- The subproject does not discharge any toxic waste or liquid waste. The handling of the used batteries come under the purview of The Batteries (Management and Handling) Rules, 2001 and 2010 and thus either used batteries are taken away by the suppliers of new batteries or sold to recyclers authorized by the State Pollution Control Board.

CORRECTIVE ACTION PLAN

The environmental safeguards audit has indicated that at present the subproject is generally in compliance with the ESMS and no 'non-compliances' has been observed/recorded and thus no CAP (corrective action plan) has been warranted. However, the project developer has consented to earmark a budgetary provision for environmental management. ESSU at IREDA shall ensure developer make budgetary provision and monitor implementation of the environmental management plan through developer's periodic progress reports. Further, IREDA will undertake bi-annual due diligence visits through its ESSU to ensure satisfactory environmental safeguards compliance as per ESMS.

Sub Project: 25 MWp Solar PV Power Project Surendranagar, Gujarat State

1. PROJECT DESCRIPTION

In accordance with the Gujarat State Solar Energy Policy, 2009, M/s Chattel Constructions Private Limited (M/s CCPL) received allocation of 25 MWp solar photovoltaic project against its application and the tariffs have been fixed as per the policy guidelines. M/s CCPL has been allocated under the second phase of Solar Power Policy – 2009 of the State of Gujarat.

M/s Chattel Constructions Pvt. Ltd. is a SPV incorporated on 22nd June 2010 by promoter company M/s Hindustan Clean Energy Limited to set up 25MW solar power project at Surendranagar District in the state of Gujarat as per the allocation. Apart from this, the promoters have set up and commissioned 12 similar other solar power projects in Gujarat and elsewhere, with capacity ranging between 15-50MW.

IREDA is a Public Limited Government Company established in 1987, under the administrative control of MNRE (Ministry of New and Renewable Energy), GoI to promote, develop and extend financial assistance for renewable energy and energy efficiency/conservation projects. In line with its corporate objectives, IREDA is financing the subproject based on crystalline technology being developed by M/s Chattel Constructions Pvt. Ltd.

The construction of the subproject was commenced in August 2012 and commercial operations date(COD) was achieved in January 2013. At present, the project is fully operational and functioning to its installed capacity as per allocation. Normally, it takes about 6-8 months for construction and commissioning solar project of this capacity, as has been observed in other similar projects as well.

The solar power generated by the subproject is being evacuated through a 66 KV transmission line connected to Patdi sub-station situated at a distance of 7.6 km from the subproject site. As the project is planned under the Solar Power Policy (2009) of the state of Gujarat, and as per the terms of Power Purchase Agreement, it is the responsibility of GETCO to arrange, provide and maintain the power evacuation and transmission from the 66 kV switchyard within the subproject.

2. OBJECTIVE OF ENVIRONMENTAL SAFEGUARDS AUDIT

An environmental safeguards audit was conducted by ESSU (Environmental and Social Safeguards Cell) at IREDA to check and ensure subproject's compliance to the IREDA's ESMS agreed upon with ADB as well as ADB's Safeguards Policy Statement (SPS), 2009.

The environmental safeguard audit of the subproject was undertaken during January 2016 with the following objectives:

- Identify the environmental safeguards concerns and environmental impacts due to subproject construction and operation

- Determine whether sub project actions comply with IREDA's ESMS agreed upon with ADB as well as ADB's Safeguards Policy Statement (SPS), 2009 and requirements;
- Prepare a CAP (corrective action plan), if any required, containing necessary remedial actions and ensure subproject's compliance to CAP during subsequent periodic safeguards audits

3. AUDIT AND SITE INVESTIGATION PROCEDURE

The audit comprised of visit to the sub project location, inspections/field assessments in and around the subproject, informal consultations with landowners and local community members; meetings with the developer's sub project in-charge at site as well as senior management at their corporate office, review of project documentation being maintained at subproject among others.

4. APPLICABLE NATIONAL, LOCAL & OTHER ENVIRONMENTAL LAWS, REGULATIONS & STANDARDS

- As per the present regulatory framework, solar power projects do not require any prior environmental clearances either at the Centre or at the State level. The Schedule of EIA notification, 2006 does not include solar power projects and thus are out of the purview of this notification.
- Further, as per the re-categorization of industries notified by MOEF&CC in March 2016, solar power projects are now placed under white category, which are exempted from even seeking consent to establish(CTE) and consent to operate(CTO) from the State Pollution Control Board.
- Recently, since the project has been commissioned prior to re-categorization of industries notified by MoEF&CC, the subproject will require CTE and CTO from the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.
- As the land parcels required for subproject has been directly purchased from private land owners and does not involve any forest land, there is no requirement to obtain NOC from Forests and Environment, Department of Gujarat or required to seek any clearances under the Forest (Conservation) Act, 1980.
- Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 is applicable to ensure safety and welfare measures for workers employed at building and other construction sites. The subproject is covered under 'other construction' category.
- Since the subproject is more than 120 Km away from the airport and also does not involve construction of any structures, which involves height (limiting height is 150 meters within a distance of 20km from airport), the subproject will not require any height clearances from competent authorities.

5. AUDIT FINDINGS

5.1 Project Location & its Status

The subproject developer has constructed a 25MW solar power project at Surendranagar District in the state of Gujarat and same has been commissioned on January, 2013. At present the subproject is under operation and power is being evacuated to the grid as in accordance with its power purchase agreement with the Gujarat Urja Vikas Nigam Limited.

The subproject site is connected to the State Highway through all-weather bituminous road. The nearest airport is at Ahmedabad, some 120 kms away from the subproject location. Since the subproject is more than 120 Km away from the airport and also does not involve construction of any structures, which involves height (limiting height is 150 meters within a distance of 20km from airport), the subproject will not require any height clearances from competent authorities.

The subproject, has received the consent to establish (CTE) and Consent to Operate (CTO) from the State Pollution Control Board with a validity of 5 years i.e. January 02, 2018.

5.2 Land Requirement

The subproject has been constructed over 216 acres of land, which was/is devoid of any large trees and vegetative cover. The 216 acres of land parcels largely constitute rain dependent single cropped agricultural lands. The lands have been directly purchased from the local people through a willing seller and willing buyer principle.

5.3 National Park, Wildlife Sanctuary or Ecologically Sensitive Areas

The subproject has no National Park or Wildlife Sanctuary or ecologically sensitive areas within a radius of 10 km

5.4 Flora & Fauna

The subproject site is not reported to be falling along the migrant route any threatened/protected wildlife. Occurrence of rare, threatened and/or endangered (both flora and fauna) species has not been reported in and around the subproject area/region.

5.5 Archeological or Historical Monuments or Sensitive Areas

No archeological or historical monuments, protected by Archeological Survey of India or from the State Government have been reported in and around the sub project site as well as within a radius of 10 km. The subproject construction did not impact any religious structures or worship places or places of importance/value to the local populace.

5.6 Perennial or Seasonal Rivers

No perennial or seasonal rivers/streams flow within a region of 10 km radius surrounding the sub project site.

5.7 Project Impacts

The construction of subproject facility has not involved any significant earth work excavation/filling or major construction activities, except for marginal grading activities to even out and level the ground for installing solar PV panels on prefabricated metallic frames.

The limited site specific impacts like dust, noise, disposal of construction waste, on site sanitation facilities for construction force, have been reported to be handled through site specific mitigation measures and good engineering practices of the EPC contractor.

In order to conserve water, developer has opted for manual mopping of panels through wet micro fibers for periodic cleaning of solar PV panels instead of hydrant and sprinkler network, which require comparatively more water.

However, the cleaning groups deployed for mopping of Solar panels are orally briefed about safety aspects and to avoid high voltage areas within the subproject premises.

However, Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 is applicable to ensure safety and welfare measures for workers employed at building and other construction sites. The subproject is covered under 'other construction' category.

Whenever some incident happens, required actions are taken at site and the matter is reported to their corporate office as part their regular reporting mechanism for the subproject.

The project is also subjected to Indian Electricity Regulations and has to confirm with respect to both safety and technical requirements, as part of testing and commissioning of subproject.

6. AUDIT CONCLUSIONS AND CORRECTIVE ACTION PLAN

The environmental safeguards audit has indicated that at present the subproject is generally in compliance with the ESMS and no 'non-compliances' has been observed/recorded. During the audit, the project developer has consented to earmark a budgetary provision for environmental management. As a CAP (Corrective action plan), the ESSU at IREDA shall ensure developer allocate required budgetary provision and monitor implementation of the environmental management plan through developer's periodic progress reports. Further, IREDA will undertake bi-annual due diligence visits through its ESSU to ensure satisfactory environmental safeguards compliance as per ESMS.

Annexure 5
ADB prohibited list of activities

ATTACHMENT 1: ADB PROHIBITED INVESTMENT ACTIVITIES LIST (PIAL)

The following do not qualify for Asian Development Bank financing:

- (i) production or activities involving harmful or exploitative forms of forced labor¹⁰ or child labor;¹¹
- (ii) production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phaseouts or bans, such as (a) pharmaceuticals,¹² pesticides, and herbicides,¹³ (b) ozone-depleting substances,¹⁴ (c) polychlorinated biphenyls¹⁵ and other hazardous chemicals,¹⁶ (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora,¹⁷ and (e) transboundary trade in waste or waste products;¹⁸
- (iii) production of or trade in weapons and munitions, including paramilitary materials;
- (iv) production of or trade in alcoholic beverages, excluding beer and wine;¹⁹
- (v) production of or trade in tobacco;¹⁰
- (vi) gambling, casinos, and equivalent enterprises;¹⁰
- (vii) production of or trade in radioactive materials,²⁰ including nuclear reactors and components thereof;
- (viii) production of, trade in, or use of unbonded asbestos fibers;²¹
- (ix) commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
- (x) marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

¹⁰ Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

¹¹ Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).

¹² A list of pharmaceutical products subject to phaseouts or bans is available at <http://www.who.int>.

¹³ A list of pesticides and herbicides subject to phaseouts or bans is available at <http://www.pic.int>.

¹⁴ A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at <http://www.unep.org/ozone/montreal.shtml>.

¹⁵ A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.

¹⁶ A list of hazardous chemicals is available at <http://www.pic.int>.

¹⁷ A list is available at <http://www.cites.org>.

¹⁸ As defined by the Basel Convention; see <http://www.basel.int>.

¹⁹ This does not apply to subproject sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a subproject sponsor's primary operations.

²⁰ This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.

²¹ This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

Annexure 6
Mopping of Solar Panels



Photograph showing cleaning of PV panels

Annexure 7

The Batteries (Management and Handling) Rules, 2001 and 2010

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 16th May, 2001

Amended by notification S.O.1002(E), dated 4th May, 2010)

S.O. 432(E).- Whereas a notification of the Government of India in the Ministry of Environment and Forests was published in the Gazette of India, Extraordinary, Part II-section 3, sub-section (ii) vide No. S.O. 491(E), dated 24th May, 2000 and corrigendum published in the Gazette of India Extraordinary Part-II section 3, sub-section (ii) vide No. S.O. 593(E), dated 23rd June, 2000 under powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), inviting objections from persons likely to be affected, within a period of sixty days from the date of publication of the said notification with regard to the Government's intention to notify the Battery (Management and Handling) Rules, 2000.

And, whereas all objections received have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby notifies the Batteries (Management and Handling) Rules, 2001.

1. SHORT TITLE AND COMMENCEMENT. –

- (1) These rules may be called the **Batteries (Management and Handling) Rules, 2001.**
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. APPLICATION. –

These rules shall apply to every manufacturer, importer, re-conditioner, assembler, dealer, recycler, auctioneer, consumer, and bulk consumer involved in manufacture, processing, sale, purchase and use of batteries or components thereof.

3. DEFINITIONS.- In these rules, unless the context otherwise requires, -

- (a) '**Act**' means the Environment (Protection) Act, 1986 (29 of 1986);
- (b) '**assembler**' - means a person who manufactures lead acid batteries by assembling various components;
- (c) '**auction**' - means bulk sale of used lead acid batteries or component (s) thereof by invitation of tenders or auction, contract or negotiation by individual(s), companies or Government Departments;
- (d) '**auctioneer**'- means a person(s) who auctions used lead acid batteries or components, thereof;
- (e) '**battery**'- means lead acid battery which is a source of electrical energy and contains lead metal;
- ¹[(f) '**bulk consumer**' - means a consumer such as the Departments of Central Government like Railways, Defence, Telecom, Posts and Telegraph, the Departments of State Government, the Undertakings, Boards and other agencies or companies who purchase hundred or more than hundred batteries per annum.]
- (g) '**components**' means lead bearing components of a lead acid battery;
- (h) '**consumer**'- means a person using lead acid batteries excluding bulk consumers;
- (i) '**dealer**'- means a person who sells and receives lead acid batteries or components thereof to and from the consumers or other dealers or retailers on behalf of the manufacturers, importers, assemblers and reconditioners or otherwise;
- (j) '**designated collection centre**'- means a collection centre established, individually or jointly by one or more manufacturers or importers, assemblers and re-conditioners in pursuance of their responsibilities under rule- 4 of these rules.
- (k) '**importer**' -means a person who imports new lead acid batteries or components containing lead thereof for the purpose of sale;

¹ Substituted by the S.O.1002(E), dated 4.5.2010.

- (l) **'manufacturer'**- in relation to any factory manufacturing lead acid batteries or components thereof means a person or Chief Executive Officer (CEO) of the company who has control over the affairs of the factory or the premises for sale and collection of lead acid batteries or components thereof,
- (m) **'original equipment manufacturer'** - means manufacturer of equipment or product using lead acid batteries as a component;
- (n) **'reconditioner'** -means a person involved in repairing of lead acid batteries for selling the same in the market;
- (o) **'recycler'**-means an occupier who processes used lead acid batteries or components thereof for recovering lead;
- (p) **'registered recycler'**- means a recycler registered with the Ministry of Environment and Forests or an agency designated by it for reprocessing used lead acid batteries or components thereof;
- (q) **'State Board'**- means the concerned State Pollution Control Board or the Pollution Control Committee as the case may be;
- (r) **'used batteries'** - means used, damaged and old lead acid batteries or components thereof; and
- (s) the words not defined in these rules will have the same meaning as defined in the Environment (Protection) Act, 1986 and the rules framed thereunder.

4. RESPONSIBILITIES OF MANUFACTURER, IMPORTER, ASSEMBLER AND RE-CONDITIONER.-

It shall be the responsibility of a manufacturer, importer, assembler and re-conditioner to

- (i) ensure that the used batteries are collected back as per the Schedule against new batteries sold excluding those sold to original equipment manufacturer and bulk consumer(s);
- (ii) ensure that used batteries collected back are of similar type and specifications as that of the new batteries sold;
- (iii) file a half-yearly return of their sales and buy-back to the State Board in Form- I latest by 30th June and 31st December of every year.
- (iv) set up collection centres either individually or jointly at various places for collection of used batteries from consumers or dealers;
- (v) ensure that used batteries collected are sent only to the registered recyclers,
- (vi) ensure that necessary arrangements are made with dealers for safe transportation from collection centres to the premises of registered recyclers ;
- (vii) ensure that no damage to the environment occurs during transportation;
- (viii) create public awareness through advertisements, publications, posters or by other means with regard to the following:
 - (a) hazards of lead;
 - (b) responsibility of consumers to return their used batteries only to the dealers or deliver at designated collection centres; and
 - (c) addresses of dealers and designated collection centres.
- (ix) use the international recycling sign on the Batteries;
- (x) buy recycled lead only from registered recyclers; and
- (xi) bring to the notice of the State Board or the Ministry of Environment and Forests any violation by the dealers.
- ²[(xii) ensure that the new batteries shall be sold only to the registered dealers.]

Note: The assemblers and reconditioners are excluded from the purview of responsibilities as specified in sub-clauses (iv), (vii), (ix) and (xii).

² Inserted by the S.O.1002(E), dated 4.5.2010.

5. REGISTRATION OF IMPORTERS. –

- ³[(i) the importers shall get registered as per Form I with the Central Pollution Control Board for a period of five years and a provision of cancellation for failure in collection of the required number of used batteries as per the said rules, non-submission of timely half yearly returns to the State Pollution Control Boards with a copy to the Central Pollution Control Board, renewal of the registration shall be as per the compliance status:
Provided that the registration granted to the importer shall not be cancelled unless he has been given a reasonable opportunity of hearing;
- (ii) an appeal shall lie against any order of suspension or cancellation or refusal of registration passed by the Member-Secretary of the Central Pollution Control Board or any other officer designated by the Central Pollution Control Board;
- (iii) the appeal shall be in writing and shall be accompanied with a copy of the order appealed against and shall be made within period of thirty days from the date of passing of the order.]

6. CUSTOMS CLEARANCE OF IMPORTS OF NEW LEAD ACID BATTERIES. –

Customs clearance of imports shall be contingent upon

- (i) valid registration with the Reserve Bank of India (with Importer's Code Number);
- (ii) one time registration with the Ministry of Environment and Forests or an agency designated by it in Form-II;
- (iii) undertaking in Form-III; and
- (iv) a copy of the latest half-yearly return in Form-IV.

7. RESPONSIBILITIES OF DEALER.–

It shall be the responsibility of a dealer to –

- (i) ensure that the used batteries are collected back as per the Schedule against new batteries sold;
 - (ii) give appropriate discount for every used battery returned by the consumer;
 - (iii) ensure that used batteries collected back are of similar type and specifications as that of the new batteries sold;
 - (iv) file half-yearly returns of the sale of new batteries and buy-back of old batteries to the manufacturer in Form V by 31st May and 30th November of every year;
 - (v) ensure safe transportation of collected batteries to the designated collection centres or to the registered recyclers; and
 - (vi) ensure that no damage is caused to the environment during storage and transportation of used batteries.
- ⁴[(vii) (a) registration with State Pollution Control Board for five years and a provision of cancellation for failure in collection of the required number of used batteries as per the said rules, non-submission of timely half yearly returns to the State Pollution Control Boards, renewal of the registration shall be as per the compliance status, to submit details as per Form IV, registration would be considered as deemed registered if not objected to within thirty days;
- (b) an appeal shall lie against any order of suspension or cancellation or refusal of registration passed by the Member-Secretary of the State Pollution Control Board or any other officer designated by the State Pollution Control Board;
- (c) the appeal shall be in writing and shall be accompanied with a copy of the order appealed against and shall be made within period of thirty days from the date of passing of the order.]

³ Substituted by the S.O.1002(E), dated 4.5.2010.

⁴ Inserted by the S.O.1002(E), dated 4.5.2010.

8. RESPONSIBILITIES OF RECYCLER. –

Each recycler shall -

- (i) apply for registration to the Ministry of Environment and Forests or an agency designated by it if not applied already, by submitting information in Form VI;
- (ii) ensure strict compliance of the terms and conditions of registration, however, those already registered with the Ministry of Environment and Forests or an agency designated by it for reprocessing used batteries would be bound by the terms and conditions of such registration;
- (iii) submit annual returns as per Form VII to the State Board;
- ⁵[(iv) make available all records relating to receipt of used batteries, sources, quantities and metal yield to be submitted to the State Pollution Control Board for inspection.]
- (v) Mark 'Recycled' on lead recovered by reprocessing; and
- (vi) Create public awareness through advertisements, publications, posters or others with regard to the following-
 - (a) hazards of lead; and
 - (b) obligation of consumers to return used batteries only to the registered dealers or deliver at the designated collection centres.

9. PROCEDURE FOR REGISTRATION/RENEWAL OF REGISTRATION OF RECYCLERS. –

- (1) Every recycler of used lead acid batteries shall make an application in Form VI along with the following documents to the Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it for grant of registration or renewal;
 - (a) a copy of the valid consents under Water (Prevention and Control of Pollution) Act, 1974, as amended and Air (Prevention and Control of Pollution) Act, 1981, as amended;
 - (b) a copy of the valid authorization under Hazardous Wastes (Management and Handling) Rules, 1989 as amended;
 - (c) a copy of valid certificate of registration with District Industries Centre; and
 - (d) a copy of the proof of installed capacity issued by either State Pollution Control Board/District Industries Centre.
- (2) The Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it shall ensure that the recyclers possess appropriate facilities, technical capabilities, and equipment to recycle used batteries and dispose of hazardous waste generated;
- (3) The Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it shall take decision on application for registration within ⁶[90] days of receipt of application form with complete details;
- (4) The registration granted under this rule shall be in force for a period of two years from the date of issue or from the date of renewal unless suspended or cancelled earlier;
- (5) An application for the renewal of registration shall be made in Form VI atleast six months before its expiry. The Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it shall renew the registration of the recycler granted under sub rule(4) of this rule, after examining each case on merit;
- (6) The Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it may, after giving reasonable opportunity to the applicant of being heard, refuse to grant registration;
- (7) The Joint Secretary, Ministry of Environment and Forests or any officer designated by the Ministry or an agency designated by it may cancel or suspend a registration issued under these rules, if in his/her opinion, the registered recycler has failed to comply with any of the conditions of registration, or with any provisions of the Act or rules made thereunder after giving him an opportunity to explain and after recording the reasons therefor;

⁵ Substituted by the S.O.1002(E), dated 4.5.2010.

⁶ Substituted by the S.O.1002(E), dated 4.5.2010.

- (8) It shall be the responsibility of the State Boards to monitor the compliance of conditions prescribed while according registration, and
- (9) An appeal shall lie against any order of suspension or cancellation or refusal of registration passed by the Joint Secretary to the Ministry of Environment and Forests or any officer designated by the Ministry or agency designated by it. The appeal shall be in writing and shall be accompanied with a copy of the order appealed against and shall be presented within 30 days of passing of the order.

10. RESPONSIBILITIES OF CONSUMER OR BULK CONSUMER.-

- (1) It shall be the responsibility of the consumer to ensure that used batteries are not disposed of in any manner other than depositing with the dealer, manufacturer, importer, assembler, registered recycler, re-conditioner or at the designated collection centres.
- (2) It shall be the responsibility of the bulk consumer to –
 - (i) ensure that used batteries are not disposed of in any manner other than by depositing with the dealer/manufacturer/registered recycler/importer/ re-conditioner or at the designated collection centers,- and
 - (ii) file half-yearly return in Form VIII to the State Board .
- (3) Bulk consumers or their user units may auction used batteries to registered recyclers only.

11. RESPONSIBILITIES OF AUCTIONEER.-

The auctioneer shall -

- (i) ensure that used batteries are auctioned to the registered recyclers only-,
- (ii) file half-yearly returns of their auctions to the State Boards in Form-IX; and
- (iii) maintain a record of such auctions and make these records available to the State Board for inspection.

12. PRESCRIBED AUTHORITY.–

The prescribed authority for ensuring compliance of the provisions of these rules shall be the State Board. And, it shall file an annual compliance status report to the Central Pollution Control Board by 30th April of every year.

13. DUTIES OF CENTRAL POLLUTION CONTROL BOARD.-

The Central Pollution Control Board shall compile and publish the data received every year from the State Boards. It shall review the compliance of the rules periodically to improve the collection and recycling of used lead batteries and apprise the Ministry of Environment and Forests, Government of India.

14. COMPUTERISATION OF RECORDS AND RETURNS.–

Ministry of Environment and Forests or an agency designated by it shall develop a system for computerized tracking of-

- (i) distribution and sale of batteries;
- (ii) collection, auction, transport and re-processing of used batteries;
- (iii) sale of re-processed lead by registered recyclers; and
- (iv) sale of lead from all domestic producers or importers.

SCHEDULE

[See rule 4(i) and 7(i)]

Sl. No.	Year	Number of used batteries to be collected back
(i)	During first year of implementation of rules	50% of new batteries sold
(ii)	During second year of implementation of rules	75% of new batteries sold
(iii)	After second year of implementation of rules	90% of new batteries sold

FORM – I

[See rule 4(iii)]

FORM FOR FILING RETURNS OF SALE OF NEW BATTERIES AND COLLECTION OF USED BATTERIES

[To be submitted by ⁷[manufacturer/importer/bulk consumer] by 30th June (for the period October-March) and 31st December (for the period April-September) every year]

⁸ [1.	Name and Address of the manufacturer /importer/bulk consumer]	
2.	Name of the authorised person and complete address with telephone and fax numbers	
3.	Total number of new batteries sold ⁹ [importers or consumers] during the period October-March/April-September in respect of the following categories Category (i) Automative (a) Four Wheeler (b) Two Wheeler (ii) Industrial (a) UPS (b) Motive power (c) Stand-by (iii) Others (inverters, etc.) Number of batteries sold to (i) dealers (ii) bulk consumers (iii) OEM (iv) Any other party for replacement should be indicated separately	(i) No. of Batteries (ii) Approximate weight (in Metric Tones)
4.	Name and full address of the designated collection centres	
5.	Total number of used batteries of different categories as at Sl. No.3 collected and sent to the registered recyclers*	

* enclose the list of recyclers to who batteries have been sent for recycling.

Place _____
Date _____

Signature of the authorised person

FORM – II

[See rule 5 & 6(ii)]

FORM FOR REGISTRATION OF IMPORTER OF NEW LEAD ACID BATTERIES / PRIMARY LEAD

[To be submitted in triplicate to the Ministry of Environment and Forests]

1.	Name and Address of the importer	
2.	Import / Export Licence No.	
3.	Name of person / owner / occupier as the case may be	

Date _____
Place _____

Signature of the Importer

⁷ Substituted by the S.O.1002(E), dated 4.5.2010.
⁸ Substituted by the S.O.1002(E), dated 4.5.2010.
⁹ Inserted by the S.O.1002(E), dated 4.5.2010.

FORM – III

[see rule 6(iii)]

(to be submitted by importer of new lead acid batteries)

UNDERTAKING

To

The Member Secretary
State Pollution Control Board

1. I _____ of M/s _____ hereby submit that I am in the process of importing _____ (MT) of new lead acid batteries.
2. I undertake that I shall collect back the used batteries as per the schedule prescribed by the Government from time to time in lieu of the new batteries imported and sold, and shall send these only to the registered recyclers. I further undertake that I shall submit half-yearly returns as per item (iii) of rule 6 to the State Board and abide by their directions, if any

Date :

Place :

Signature of the Importer

Copy to : The concerned Customs Authority

¹⁰FORM – IV

[See Rules 4 and 7 (vii)]

FORM FOR REGISTRATION OF DEALERS

[To be submitted by dealers to the State Pollution Control Boards/Pollution Control Committees]

1.	Name and address of the dealers with telephone and fax numbers	
2.	TIN / VAT number*	

* IF APPLICABLE (AS PER CURRENT STATE SALE TAX RULES, MANDATORY TIN/VAT NUMBER IS REQUIRED ONLY IF THE ANNUAL TURNOVER OF THE DEALER IS MORE THAN THE PRESCRIBED VALUE)

Signature of the authorised person

Place _____
Date _____

Note:- The principal rules were published in the Gazette of India, Extraordinary *vide* notification number S.O.432(E), dated the 16th May, 2001.

¹⁰ Substituted by the S.O.1002(E), dated 4.5.2010.

FORM – V

[See rule 7(iv)]

FORM FOR FILING RETUNS OF SALE OF NEW BATTERIES AND
COLLECTION OF OLD BATTERIES

[To be submitted by dealers to the manufacturers by 31st May (for sale during October-March) and 30th November (for sale during April-September) every year]

1.	Name and address of the dealer	
2.	Name of the authorised person and complete address with telephone and fax numbers	
3.	Number of new batteries sold during the period October-March/April-September in respect of the following categories; Category (i) Automative (a) Four Wheeler (b) Two Wheeler (ii) Industrial (a) UPS (b) Motive power (c) Stand-by (iii) Others Number of batteries sold (i) As replacement of used Batteries (ii) to bulk consumers (iii) to OEM (iv) to any other party	(i) No. of Batteries (ii) Approximate weight (in Metric Tones)
4.	Total number of used batteries of different categories as at Sl. No.3 collected and sent to registered recyclers */designated collection centres / manufacturers	

* enclose the list of recyclers to who batteries have been sent for recycling.

Place _____
Date _____

Signature of the authorised person

FORM – VI

[see rule 8(i), 9(1) & 9(5)]

FORM FOR APPLICATION FOR REGISTRATION OF FACILITIES POSSESSING ENVIRNMENTALLY SOUND MANAGEMENT PRACTIVE FOR RECYCLING OF USED LEAD ACID BATTERIES

(To be submitted in triplicate)

1.	Name and Address of the unit			
2.	Contact person with designation, Tel./Fax			
3.	Date of Commissioning			
4.	No. of Workers (including contract labourers)			
5.	Consent Validity	a) Under Air Act, 1981; Valid up to – b) Under Water Act, 1974; Valid up to -		
6.	Validity of Authorisation under rule 5 of the Hazardous Wastes (Management and Handling) Rules, 1989	Valid up to -		
7.	Installed capacity of production in (MTA)			
8.	Products manufactured Name : (a) (b) (c)	Year –1	Year-2	Year-3
9.	Raw material consumed (Tones/year) Name : (a) (b) (c)	Year –1	Year-2	Year-3
10.	Manufacturing Process	Please attach manufacturing process flow diagram for each product(s)		
11.	Water consumption	Industrial - m ³ /day Domestic - m ³ /day		
12.	Water Cess paid up to			
13.	Waste water generation a) as per consent m ³ /day b) actual m ³ /day (average of last three months)	Industrial - Domestic -		
14.	Waste water treatment (please provide flow diagram of the treatment scheme)	Industrial - Domestic -		
15.	Waste water discharge	Quantity m ³ /day Location- <u>Analysis of treated waste water –</u> PH ₂ , BOD,COD, SS, O&G, Any other (indicate the corresponding standards applicable)		
16.	Air Pollution Control a. Please provide flow diagram for emission control system(s) installed for each process unit, utilities etc. b. Details for facilities provided for control of fugitive emission due to material handling, process, utilities etc. c. Fuel consumption d. Stack emission monitoring results vis-à-vis the standards applicable e. Ambient air quality	S.No. Name of Fuel Quantity / day S.No Stack attached to Emission g/Nm ³ S.No Location Results ug/m ³		
17.	Hazardous Waste Management a) Waste generation b) Details of collection, treatment c) Disposal (including point of final discharge) (i) Please provide details of the disposal facility (ii) Whether facilities provided are in compliance of the conditions issued by the SPCB in Authorization (iii) Please attach analysis report of characterization of hazardous waste generated (including leachate test if applicable)	S.No Name of Process Quantity / y Waste category		

18.	Details of waste proposed to be taken in auction or import, as the case may be, for use as raw material	1. Name - 2. Quantity required /- 3. Position in List A/List as per Basel Convention (BC) – 4. Nature as per Annexure III of BC
19.	Occupational safety and health aspects	Please provide details of facilities provided.
20.	Remarks (i) Whether industry has provided adequate pollution control system / equipment to meet the standards of emission / effluent. (ii) Whether industry is in compliance with conditions laid down in the Hazardous Waste Authorization (iii) Whether Hazardous Waste collection and Treatment, Storage and Disposal Facility (TSDF) are operating satisfactorily. (iv) Whether conditions exist or likely to exists of the material being handled / processed of posing immediate or delayed adverse impacts on the environment. (v) Whether conditions exist or is likely to exist of the material being handled / processed by any means capable of yielding another material e.g., leachate which may possess eco-toxicity.	Yes/No If Yes, please furnish details Yes / No Yes / No Yes / No Yes / No
21.	(i) Cost of the unit (ii) Cost of pollution control equipment including environmental safeguard measures a) Capital : b) Recurring :	
22	Any Other Information : i) ii) iii)	

I hereby declare that the above statements/informations are true and correct to the best of my knowledge and belief.

Date :
Place:

Signature Name Designation

FORM – VII
[see rule 8(iii)]

FORM FOR FILING RETURNS BY RECYCLERS OF USED BATTERIES
[To be submitted by recyclers by 30th June and 31st December of every year]

1.	Name and address of the recycler	
2.	Name of the Authorised person and full address with telephone and fax number	
3.	Installed annual capacity to recycle used battery scrap (in MTA)	
4.	Total quantity of used battery scrap purchased from/sent for processing during the period from October – March / April-September	(i) Quantity of used batteries sent by/purchased from the manufacturers (ii) Quantity of used batteries purchased from the dealers (iii) Quantity of used batteries purchased from auctioneers (iv) Quantity of used batteries obtained from any other source -
5.	Quantity of lead recovered from the used battery scrap (in MTA)	
6.	Quantity of recycled lead sent back to	(i) the manufacturer of batteries (ii) other agencies * -

* enclose list of other agencies.

Place _____
Date _____

Signature of the authorised person

FORM – VIII

[see rule 10 (2)(ii)]

FORM FOR FILING RETURNS FOR BULK CONSUMER OF BATTERIES

[To be submitted by the bulk consumer to the State Board by 30th June (for the period October-March) and 31st December (for the period April-September) every year]

1.	Name and address of the bulk consumer	
2.	Name of the Authorised person and full address with telephone and fax number	
3.	Number of new batteries of different categories purchased from the manufacturer/importer/dealer or any other agency during October-March and April-September Category (i) Automative (a) Four wheelers (b) Two wheelers (ii) Industrial (a) UPS (b) Motive power (c) Stand-by (iii) Others	(i) No. of Batteries (ii) Approximate weight (in Metric Tonnes)
4.	Number or used batteries of categories mentioned in Sl. No. 3 and Tonnage of scrap sent to manufacturer/dealer /importer/registered recycler/or any other agency to whom the used batteries scrap was sent*.	

* Enclose list of manufacture/dealer/importer/registered recyclers/or any other agency to whom the used batteries scrap was sent.

Place _____
Date _____

Signature of the authorised person

FORM – IX

[see rule 11 (ii)]

FORM FOR FILING RETURNS BY AUCTIONEER OF USED BATTERIES

[To be submitted by the auctioneer to State Board by 30th June and 31st December of every year]

1.	Name and address of the auctioneer	
2.	Name of the Authorised person and full address with telephone and fax number	
3.	Number of used batteries and total Tonnage (of MT) available during the period from October-March and April-September	
4.	Sources of the used battery scrap	
5.	Number of used batteries and total Tonnage (of MT) auctioned during the period from October-March and April-September	
6.	Number of used batteries and total Tonnage of (MT) sent to the registered recyclers *	

* enclose a list.

Place _____
Date _____

Signature of the authorized Person

Annexure 8
Land Purchase Permission



Serial No. 475 Dt. 3/11/2014

BELA R. PANDYA
NOTARY
GOVT. OF INDIA

3 NOV 2014

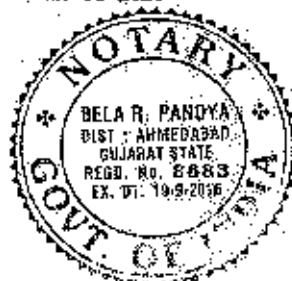
No.LAND-1/N.A./Sec.65(B)/Reg.No.9/2014

Office of the Collector
Surendranagar
Date: 28/10/2014

Sub: Certificate under Section 65(B) of the Bombay Land Revenue Code, 1879 granting permission for bonafide industrial purpose of the land bearing Survey No.241, admeasuring Hct 65-64-03 sq. meters of Village Kathada, Taluka Dasada Shri Chattel Construction Pvt. Ltd. Delhi

Documents referred:

- (1) An application under Section 65 (B) of the Land Revenue Code of the applicant Shri Chattel Construction Pvt. Ltd., Delhi, dated 29.03.2014.
- (2) Letter No. Dev/Surendranagar/Dasada/ Kathada/722 of Town Planner, Surendranagar dated 11.06.2014.
- (3) Letter No.BK/HC/NA/V/369/5/13 Out Ward No.434 to 435 of Executive Engineer, Road and Buildings (Panchayat) Department, Surendranagar, dated 05.05.2014.
- (4) Letter No. IC/Infra/Land/98/2637 of Industrial Commissioner, Gandhinagar dated 19.08.2014.
- (5) Letter No. IC/Infra/Land/627677 of Industrial Commissioner, Gujarat State, Gandhinagar dated 22.11.2011.
- (6) Letter No.DSO-18/BKH/37/2014 of District Inspector Land Records, Surendranagar, dated 25.04.2014.
- (7) Letter No. PB/1/Land/NOC/Kathada/94 of Executive Engineer, Gujarat Water Supply and Sewerage Board, Surendranagar, dated 02.05.2014.
- (8) Letter No. DHG/Tc-2/2211, dated 06.05.2014 of Executive Engineer, P.G.V.C.L. (S & N), Dhrangadhra.
- (9) Letter No. NPCD.4/5/PB-3/NA/ Kathada S.N.241/4/6B/683 dated 07.05.2014 of Executive Engineer, Narmada Project Canal Department No.4/5, Mehsana.
- (10) Letter No.B/JMN/Te.12/625/14-15 dated 28.04.2014 of Deputy Conservator of Forest (Regional), Surendranagar.
- (11) Letter No.PB-3/CB/855 dated 22.04.2014 of Executive Engineer, Irrigation Department, Rajkot.
- (12) 'No Objection Certificate' No.43/2013-14 dated 10.01.2014 of the Chief Conservator of Forest, Wild Life, Gujarat State, Gandhinagar.
- (13) Letter no. Land/V-406/2014 dated 22.08.2014 of the Deputy Collector, Patdi.
- (14) Resolution No.BKHP/1096/1572/K. dated 18.07.1996 of the Revenue Department of Gujarat State and Gujarat Act No.6 of 12417.
- (15) Letter No.JMN/1/Section 65(B)/ Reg. 9/2014 dated 26.09.2014 of this office.
- (16) Application dated 27.10.2014 alongwith copies of Chatan of Shri Chattel Construction Pvt. Ltd. New Delhi.





- ORDER:-

Applicant has purchased the following land situated at Village Kathada, Taluka Dasada, Dist. Surendranagar for the bonafide industrial purpose and has obtained the certificate under Section 55. The following survey numbers were consolidated as per the Order No. JMN/V/164/Consolidation/2014 dated 20.01.2014 of the Mamlatdar, Patdi:

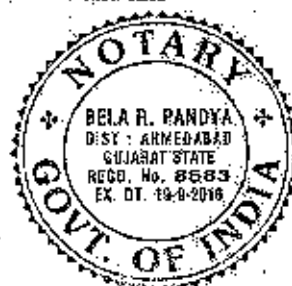
Sr. No.	S. N.	Hec. Are.	Sr. No.	S. N.	Hec. Are.
1	230/p1	1-63-90	2	239	1-13-34
3	240	1-30-51	4	241	5-52-40
5	244	2-55-97	6	245	3-21-73
7	247/p2	4-37-06	8	249	2-31-68
9	257	2-21-57	10	251	1-91-21
11	252	0-90-04	12	253	0-90-04
13	256	0-74-87	14	257	0-76-89
15	258	0-81-95	16	259	1-08-25
17	265/p1	2-07-40	18	266	2-32-70
19	267	3-32-86	20	268/p1	2-46-86
21	268/p2	2-31-68	22	269	1-55-80
23	270	1-96-27	24	271	1-11-29
25	272	0-41-48	26	274	2-27-64
27	275/p1	1-10-28	28	275/p2	2-83-28
29	275/p4	1-73-00	30	276/p1	1-87-17
31	276/p2	1-87-17	32	277	3-14-64
33	278	1-81-10	Total		65-64-03

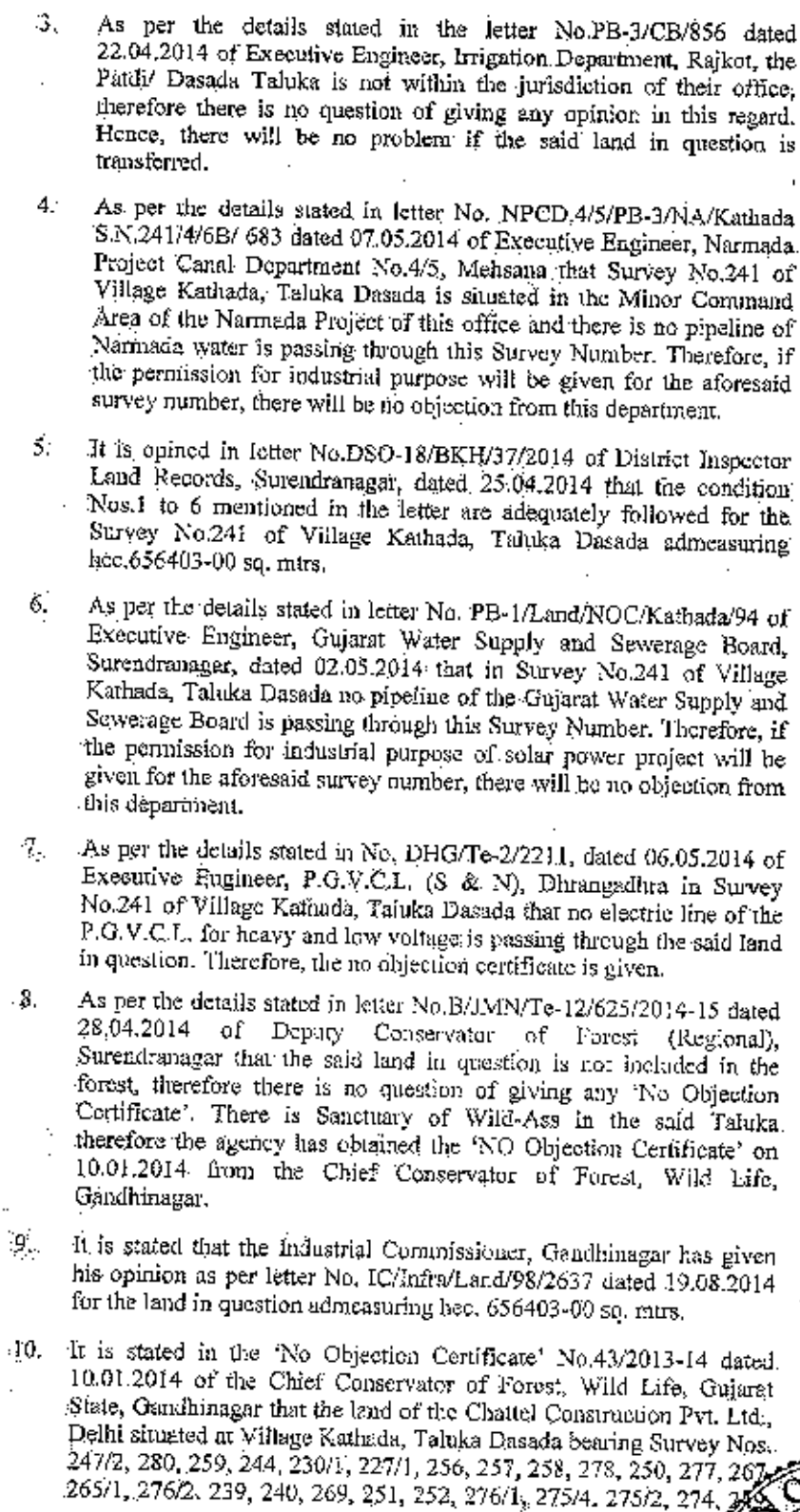
The aforesaid total 1 to 33 Survey numbers were consolidated in a new Survey No. 241 and its total measurement is Hec. 65-64-03. The Entry No. 2055 was certified on 31.03.2014.

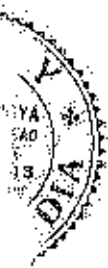
Thus, the applicant has become the absolute owner of the land in question. The notice at Ref. No. 1 given under Section 65(B) of the Bombay Land Revenue Code-1879 for the bonafide industrial purpose for installation of solar power plant in the land in question is produced before this office on 29.03.2014.

In view of Notice under Section 65(B), inquiry has been made as per Para No. 3(3) of the Gujarat Act No. 6 of 12417 and opinions have been received from the Competent officer of the concern department in this regard as per Para No. 3(2)(B) of the Act, positive/conditional opinions have been submitted at preface Nos. (2) to (12).

1. The layout plan is approved vide letter No. Dew/Surendranagar/Dasada/Kathada/722 of Town Planner, Surendranagar dated 11.06.2014, which is produced.
2. As per the letter No. BK/MC/NA/V/369/5/2013 Out Ward No. 434 to 435 of Executive Engineer, Road and Buildings (Panchayat) Department, Surendranagar, dated 05.05.2014, it is stated that no authorized classified road of the District Panchayat is passing through the land in question. Therefore, there is no question of giving any opinion regarding maintaining distance from construction line and line of control as per Ribbon Development Rules.







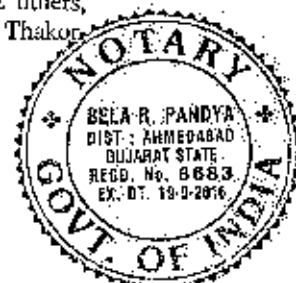
268/2, 271, 272, 275/1, 241, 253, 245, 268/1, 270 and 266 are not part of the Wild-ass sanctuary. They are owned by the private party and while installing solar power project in it, there will be no side-effect for the wildlife. The land in question is within the radius of eco-sensitive zone of 10 kms of Wild-ass sanctuary. Considering the condition Nos.1 to 11 the 'No Objection Certificate' is given.

11. Upon verifying the details of the letter dated 01.07.2014 of the Mamlatdar, Patdi, there is no problem in giving the opinion for the certificate under Section 65(B) for the land in question for industrial purpose and the Deputy Collector, Patdi vide its letter No. JMN/V/406/2014 dated 22.08.2014 as per the points Nos.1 to 13 has given opinion for issuing the certificate under Section 65(B).

Considering opinions of the different offices the Ref. No.2 to 12, there is no objection in issuing certificate for Non-agriculture use of the land in question for industrial use of solar power project, this office has issued letter dated 26.09.2014 at Ref. No.11 and legally accepted the proposal of the applicant. This office has issued letter at preface no.(14) to the applicant to pay Rs.39,38,420/- (Rupees thirty nine lakh thirty eight thousand four hundred twenty only) at the rate of Rs.6.00/- per sq. mtrs. of land admeasuring 656403 sq. meters towards transfer fees and Rs.20,100/- (Rupees twenty thousand one hundred only) towards measurement fees to the State Government regarding land in question. The applicant vide application at preface No.(15) has paid Rs.39,38,420/- (Rupees thirty nine lakh thirty eight thousand four hundred twenty only) vide Chalan No.505 on 22.10.2014 towards transfer fees and Rs.20,100/- (Rupees twenty thousand one hundred only) vide Chalan No.506 on 22.10.2014 towards measurement fees in the State Bank of India and presented the Chalan therewith. Further, the applicant has paid Rs.3,28,210/- towards Non-agriculture use, Rs.4,10,260/- towards Local Fund and Rs.82,060/- towards education cess for the five years starting from 2013-14 to the Talati-cum-Mantri, Village Kathada, Taluka Dasada on 15.10.2014 and presented the receipt thereof.

Therefore, after considering that Sori Chattel Construction Pvt. Ltd., New Delhi has legally started using the agriculture land bearing Survey No.241 admeasuring 656403 sq. meters situated at Village Kathada, Taluka Dasada, Dist. Surendranagar for the bonafide industrial purpose for starting the Solar Power Plant, on condition of paying taxes like non-agriculture use, local fund, education cess every year as per the table attached herewith and on conditions mentioned in the opinions of the respective departments as well as on below mentioned conditions and on conditions mentioned in the order at preface no.4, considering the application at preface no.(1) of the applicant as notice under Section 65(D) of the Bombay Land Revenue Code, 1879, the permission to use the land in question for non-agriculture bonafide industrial purpose to start the Solar Power Plant is given in view of provisions of Gujarat Act No.6 of 12417. The certificate is issued to the applicant for bonafide industrial use of the land under Section 65(B) of the Bombay Land Revenue Code, 1879.

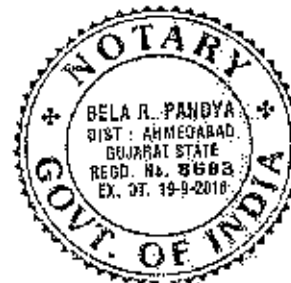
12. For the aforesaid land in question, there was dispute regarding road between the applicant company and six other persons viz. Shri Natubhai Hirabhai, Shri Fakirchandramad Ganibhai Bhatti & others, Shri Saddikbhai Ganibhai Vora, Shri Bavabhai Sendhabhai Thakor



Shri Mohammadbhai Alibhai Vora, Shri Mohammadbhai Valibhai and Alubhai Valibhai before the Mamlatdar Court under Section 5 of the Mamlatdar Court's Act vide Case No.12, 13, 14, 15,16, 20/2012-13. The Mamlatdar, Patdi has passed the order to open the road or to make alternate arrangement, for which there was settlement purshish was filed between the applicant company and the opponents. As per the said settlement, the company has to act accordingly and to follow the conditions specified therein.

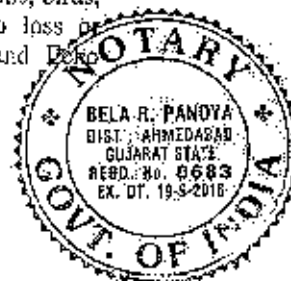
Conditions:

1. The land bearing Survey No.241 admeasuring 65-64-03 sq. meters situated at Village Kathada, Taluka Dasada, Dist. Surendranagar will be used only for industrial purpose of Solar Power Plant and without the prior permission of this office, any modification/extension or changes could not be done into approved lay out plan for building construction and compound wall etc. as per the letter No. Dev/ Surendranagar/Dasada/Kathada/722 dated 11.06.2014 by the Town Planner, Surendranagar and the conditions Nos.1 to 26 mentioned in the aforesaid plan will have to be followed.
2. The applicant has paid non-agriculture tax for the five years from 2013-14 and at present the non-agriculture tax is @10 paisa per sq. mtr. The applicant shall have to regularly pay the non-agricultural tax at the 1st August every year depending upon the prevailing standards of the government abiding by the changes happening at respective times.
3. The construction of compound wall will be done after maintaining distance from construction line and line of control as per Ribbon Development Rules. If the applicant has made construction without following the Ribbon Development Rules, then the same will be demolished at the cost of the applicant and entitled to the punishment and the Government will not be liable for the same.
4. If the applicant wants to sell the present land, then he has to inform to the purchaser about these conditions mentioned in this order in writing and the purchaser has to follow the same.
5. This certificate is given only under Section 65(B) of the Bombay Land Revenue Code, 1879, therefore, if there is any requirement of permission under any Act/Rules then the same shall have to be obtained under the particular Act/Rules. Further, the applicant has to follow all the conditions mentioned in the opinions/ No Objection Certificates given by the difference offices/ department.
6. If there is any breach in the aforesaid condition/s, then the whole construction shall be considered as illegal and the same shall have to be removed within prescribed time limit and if the applicant fails to do so, the illegal construction shall be removed at the cost of the government and it will be recovered from the applicant as the revenue taxes of the land.





7. The land must have to be utilized for the bonafide industrial purpose of Solar Power Project within 3 years from the date of notice under Section 65(B), for which the certificate is issued, whereas the production has to be started within 5 years.
8. The permission for construction has to be obtained from the competent officer/ authority.
9. The green belt having width of 5 meters have to be developed around the area of the said industry.
10. The Mamlatdar, Dasada has to take necessary steps to send certified copies after recording entry of the said order in the subsidiary forms of the Village.
11. The Mamlatdar, Dasada has to visit regularly to verify regarding follow-up of the said conditions.
12. The applicant has to scrupulously follow the conditions mentioned in the No Objection Certificates at preface No.2 to 11 given by the difference offices.
13. The land must have to be utilized for the bonafide industrial purpose of Solar Power Project within 3 years from the date of notice under Section 65(B), for which the certificate is issued, whereas the production has to be started within 5 years.
14. The permission for construction has to be obtained from the competent officer/ authority.
15. The green belt having width of 5 meters have to be developed around the area of the said industry.
16. As per No objection Certificate No.42/2013-14 dated 10.01.2014, the Chief Conservator of Forest, Wild Life, Gujarat State, Gandhinagar has given permission under Section 65(B) regarding land in question on the following conditions.
 - 1) No construction will be made in the area of rain water stream, lake or other area of stream (stream, river or other deep area). The applicant will not obstruct the rain water or natural stream by putting earthen dam. By sequence of time, if there will be any change in the geographical area, the natural stream will not be obstructed by the applicant.
 - 2) The land of the sanctuary will not be used for this purpose.
 - 3) The applicant has to maintain minimum safe distance of 50 meters from the wild-ass sanctuary.
 - 4) The applicant will not do any activity which will adversely affect the breeding, protection, entry-exit as well as residence of the wildlife and sanctuary. The applicant-user agency/ NOC holder or its representative while using the forest resources (including trees, plants, vegetations, birds, micro animals etc.,) has to take care that no loss or negative effect will cause to the sanctuary and Deho



Sensitive Zone (from the distance of 10 kms declared in the sanctuary).

- 5) The applicant will destroy the waste in such a manner that any waste, plastic or dirty water will not enter into the sanctuary.
- 6) The company has to obtain No objection Certificate from the Forest Department before doing any modification or alteration in the existing premises.
- 7) The applicant who wants to construct more than 20,000 sq. meters in the land in question, he has to obtain environment clearance certificate from the Gujarat Pollution Control Board and Environment and has to follow the conditions and provisions laid down by the Environment Department, Government of India for obtaining No objection Certificate from the Competent Authority, Forest and Environment Department and prevailing orders passed by the Court.
- 8) The company will protect and maintain its machinery, immovable properties etc., and will not affect the forest resources of the sanctuary in any manner.
- 9) At the relevant time, the State Government or the Forest Department needs to impose any additional condition/s, the same shall be imposed and they will be binding to the applicant.
- 10) In case of breach of any condition or part thereof, the certificate will automatically stand cancelled.
- 11) The company will pay Rs.5 lakh by way of Cheque/ Demand Draft for the development of sanctuary, as suggested in the wild life conservation plan prepared by the company in view of the personal discussion made with the representative of the company.

CERTIFIED

Sd/-

Chitnishi to the Collector
Surendranagar

FORWARDED

Sd/-

(K. B. Bhatt)
District Surendranagar

Encl:

1. Table of Non-agriculture tax and other taxes.
2. Conditions to be followed under order of Appendix-4/
3. Lay out plan
4. Certificate under Section 65(B) of the BLRC.

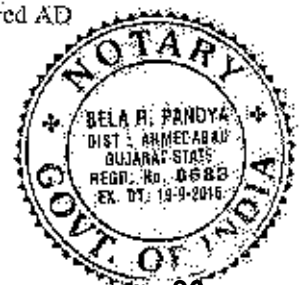
To,


Shri Chattel Construction Pvt. Ltd.

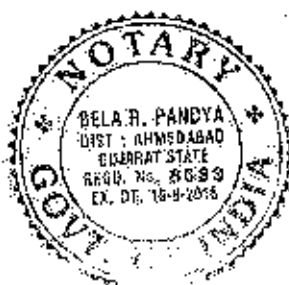
New Delhi. Presently Rahada Taluka Dasada Registered AD

Copy dispatch to:-

1. District Development Officer, Surendranagar.



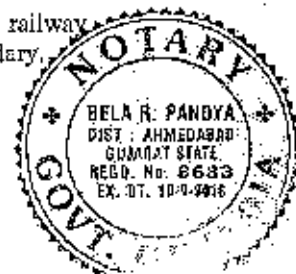
- 
2. Chief Conservator of Forest, Aranya Bhavan, Sector. 10A, Gandhinagar.
 3. Deputy Collector, Patdi.
 4. Mamlatdar, Dasada to visit regularly to verify regarding follow-up of the said conditions and after making measurement Sanad to be filled up in the Form 'M' as per the Rules.
 5. Deputy Mamlatdar (B-Dhara Center), Office of the Mamlatdar, Dasada to make entry as per the order and to send copy of entry and 7/12, 8-A.
 6. D.I.L.R., Surendranagar.
 7. General Manager, District Industrial Centre, Surendranagar.
 8. Town Planner, Surendranagar.
 9. Executive Engineer (S.N.), PGVCL, D.C.W Road, Dhrangadhra.
 10. Deputy Conservator of Forest (Regional), B/h the office of the Collector, Surendranagar.
 11. Executive Engineer, GWS&S Board, Surendranagar.
 12. Executive Engineer, Roads and Buildings Department (State), Surendranagar.
 13. Executive Engineer, Narmada Canal Project Part No.4/4, Congress Bhavan, Second floor, Mehsana.
 14. Deputy Collector, Wild-ass-sanctuary, Mayarnagar, Halawad Road, Dhrangadhra.
 14. Talati-cum-Mantri, Savda, Taluka Dasada.
 15. To General Branch of this office.
 16. Select file.



Annexure-4

Conditions to be followed by the applicant regarding certificate issued per order No.JMN-1/NA/Section 65(B)/ Reg.9/2014 dated 28.10.2014 by the Collector, Surendranagar under Section 65(B) of the Bombay Land Revenue Code, 1879 for the bonafide industrial purpose of the land bearing Survey No.241 admeasuring 65-64-03 sq. meters situated at Village Kathada, Taluka Dasada, Dist. Surendranagar.

- (1) The measurement sheet, issued by District Inspector of Land Records, on which basic remark on boundary line also should be mentioned. Lay-out plan and submitted plan should be approved by competent authority.
- (2) Before commencing the construction, planning of construction should be approved by competent officer. However, the applicant can't obtain permission without having permission of non-agricultural purpose.
- (3) Urban area where the town planning scheme has been already started, the construction should be as carried out there as per G.D.C.R. and Zoning rules.
- (4) As per approved planning, keeping health in view, disposal of waste water should be arranged.
- (5) Under Ribbon Development Rules, keeping the type of road in view, the applicant has to maintain the distance between the center point and construction; otherwise, the applicant will be responsible for that.
- (6) If the permission for industrial purpose is under process, then before commencing the construction and proceed further, the necessary permission should be received from District Industrial Officer.
- (7) In case of non-agricultural permission for Flour Mill, Cinema/Tiring Cinema/Theatre, the permission from District Magistrate should be obtained before proceeding further.
- (8) In case of non-agricultural permission for petrol, Diesel, Kerosene, C.N.G pump the permission from District Magistrate should be obtained before proceeding further and commencing construction.
- (9) Under the Indian explosive act, before starting non-agricultural procedure for Manganese, fireworks, powder-magazine the permission from District Magistrate should be obtained before proceeding further.
- (10) The construction should be 184 meters away if the land in question is located nearby jail.
- (11) The construction should be 30 meters away from the railway boundary if the land in question is located nearby-rail boundary.



- (12) The construction should be done as per prevailing rule if electric geed wire/high-tension power or props are passing over or from nearby the land in question.
- (13) The land for which non-agricultural permission is requested, if located within 20 K.M circle of Aerodrome, the height of construction as well as necessary "No objection certificate" should be obtained from the civil aviation department and rules of civil aviation should be followed.
- (14) The construction should be a circle of 900 meters away from Indian air force and installation.
- (15) The applicant has to follow the related rules if the land is located nearby O.N.G.C well.
- (16) The applicant has to follow related rules for keeping distance from suggested construction if the land is nearby Narmada Canal/other sewage canal.
- (17) If necessary, the applicant has to follow prevailing provisions under law of the state or central government (PROTECTED MONUMENTS) regarding maintaining up to 100 meter distance from proclaiming old monuments.
- (18) If necessary, the applicant has to follow prevailing provisions under law of Indian forest act regarding maintaining distance from forest/land.
- (19) If necessary, the applicant has to follow prevailing provisions under law of forest protection act 1972 regarding maintaining distance from the forest and area proclaimed as park forest/land.

The applicant has to follow above instructions strictly. Failing to do so, the competent officer will take an action considering breach of condition.

Date: 28.10.2014

CERTIFIED

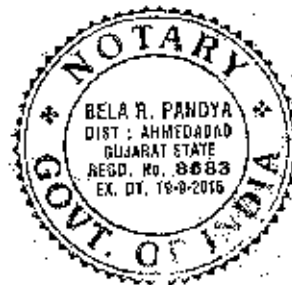
Sd/-

Chiefish to the Collector
Surendranagar

FORWARDED

Sd/-

(K. B. Bhatt)
District Surendranagar



FORM No.2
(See Rule 87-B)

Form of certificate to be issued to the occupant of the land who has started Bonafide industrial use of his land u/s-65(B) of the Bombay Land Revenue Code-1879

Order No.Jamin-I/N.A./Kalam-65(B)/Reg. No.9/2014

Whereas a Notice Dated 29.03.2014 for the Bonafide industrial use of the land has been given to the Collector of Surendranagar (hereinafter referred to as "The Collector") With declaration under section-65(B) of the Bombay Land Revenue Code-1879 as in force in the State of Gujarat (hereinafter referred to "The said Code") by CHATTEL CONSTRUCTIONS PRIVATE LIMITED, At NEW DELHI being the registered legal Purchaser of Survey. No.241 (Hector: 65-64-03) of village:- KATHADA Taluka: DASADA, Dist: SURENDRANGAR (hereinafter referred to the "Occupant" which expression shall where the context, so admits include his heirs, executors administrators and assignees) for the plot of land (hereinafter referred to as "the said plot of lands") described in Map and schedule-1 hereto indicated by the Order No.Jamin-I/N.A./Kalam-65(B)/Reg.No.9/ 2014, Date:-28/10/2014 on site plan annexed hereto forming part of Sr. No.241, Total admeasuring-656403-00 sq. meters.

WHEREAS the collector After verifying all the facts is satisfied that the occupant of the said plot of land has validly commenced use of land for the Bonafide Industrial Purpose.

Now, this is to certify that the use of the said land by the occupant for Bonafide Industrial purpose (SOLAR POWER PROJECT) U/S-65(B) of the Code is valid subject to the provisions of the said Code.

The occupant, in view of the assessment heretofore leviable in respect of the said plot of land, shall pay to the Government with effect from the revenue year on the 1st day of August, of each year annual assessment of Rs.65642-00 as per attached statement till such time, the assessment is revised. This certificate issued subject to terms and conditions laid down in this office order dated-28/10/2014 annexed to this certificate.

Place: Surendranagar
Date:-28/10/2014

Sd/-(K. B. Bhatt)
Collector
Surendranagar District

FORWARDED
Sd/-

Chitnish to the Collector
Surendranagar

Encl: Map, Schedule-4, Order & Statement of assessment.

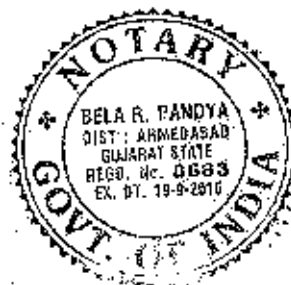


Table showing non-agriculture tax and other taxes to be paid as per order No.JMN-1/NA/Section 65(B)/ Reg-9/ 2014 dated 28.10.2014 of the Collector, Surendranagar regarding certificate issued under Section 65(B) of the Bombay Land Revenue Code, 1879 to Shri Chatet Construction Pvt. Ltd., New Delhi for the bonafide industrial purpose of the land bearing Survey No.741 admeasuring 656403 sq. meters situated at Village Kathada, Taluka Dasada, Dist. Surendranagar.

Sr. No.	Name and address of the occupant/ applicant	Survey Number and Name of Village	Area of land as per certificate	The details of non-agriculture revenue and its use	The amount of non-agricultural revenue to be collected	The amount to be collected if any education tax is applicable.	The amount to be collected if any Local Fund is applicable	The amount received towards transfer fees.	The amount of taxes to be collected from which date (as per Column 6, 7 and 8) ?
1	Shri Chatet Construction Pvt. Ltd. New Delhi	Survey No.241 of Village Kathada	656403-00 sq. mtrs.	Rs. 0.10 Paisa per square meter Industrial Purpose of Solar Power Plant	65642/-	16412/-	82052/-	Rs.39,38,420/- received vide Chalan No.505 on 22.10.2014	Since 01.08.2013 as per prevailing rate.

Note: The amount of Non-agriculture tax of Rs.5,28,210/- vide receipt No.51 on 15.10.2014 for the five years starting from 2013-14, the amount of Education cess of Rs.82,000/-vide Receipt No.63 on 15.10.2014 and amount of local fund of Rs.4,10,260/-vide receipt no.13 on 15.10.2014 have been received.

CERTIFIED

Sd/-
Chitnish to the Collector
Surendranagar

FORWARDED
Sd/- (K. B. Bhatt)
Collector
District Surendranagar



Certified This To Be The True & Correct Translation of a document Produced before me

Bela R. Pandya
BELA R. PANDYA
NOTARY PUBLIC-Govt. Of India
MY COMMISSION EXPIRES
ON 19-9-2016

3 NOV 2014

Annexure 9
Social Audit Report

Social Safeguards Audit Report

25 MWp Chattel Solar Power Project

August 2012



Chattel Construction Private Limited

The company hereby acknowledges that as per the mandate letter signed between company and Ernst & Young (E&Y) on 6th January 2012, E&Y has assisted the company in preparation of the Social Safeguard Audit Report based on data and information provided by the company to E&Y.

Contents

1. Introduction	3
1.1 Project Description	3
1.2 Need for the Project	4
1.3 Project Location	4
1.4 Project Status	5
1.5 Objectives and Scope of the Report.....	6
1.6 Methodology	6
2. Audit Findings – Involuntary Resettlement	8
2.1 Land requirements for the Project.....	8
2.2 Land acquisition process and compensation	8
2.3 Land or Right of Way (ROW) Requirements for Associated Facilities	8
2.4 Extent of Involuntary Resettlement Impacts.....	9
2.5 Applicable Regulations governing transfer of land to the Project	10
3. Audit Findings: Indigenous Peoples.....	12
3.1 Project Context	12
4. Consultation and Participation.....	14
5. Audit Findings: Other Social Considerations.....	14
a) Employee Engagement	14
b) Labour Influence.....	15
c) Gender and Development.....	15
d) Working Conditions	16
e) Prohibition of child labour	16
f) Payment of wages.....	16
g) Freedom of association	17
h) Working Hours.....	17
i) Grievance Management System.....	17
j) Labour Camps.....	19
6. Conclusions and Recommendations.....	19
6.1 Conclusions.....	19
6.2 Recommendations.....	19
Appendix 1: Photos of the site.....	20

1. Introduction

1.1 Project Description

Chattel Construction Private Limited (CCPL) was incorporated on June 22, 2010 to setup a 25 MWp solar photovoltaic power project at villages Kathada, Ahmedgadh and Savda, District Surendranagar in the state of Gujarat (India). The project is implemented under the Solar Power Policy 2009 of Gujarat. Multi Crystalline Silicon PV solar cells shall be used in the project to generate electricity. CCPL ("the company") has already signed a PPA for 25 years with Gujarat Urja Vikas Nigam Limited (GUVNL) with permission from Government of Gujarat, for sale of power generated from the project. The project is expected to be commissioned by end of September 2012.

Table.1: Project details

Sl. No	Particulars	Descriptions
1	Project site	Chattel
2	Village Name	Kathada, Ahmedgadh and Savda
3	District Name	Surendranagar
4	Name of the state	Gujarat
5	Latitude	23°15'58.8"North
6	Longitude	71°46'42.9" East
7	Road Accessibility	Road connectivity via Ahmedabad
8	Nearest Airport	Ahmedabad
9	Nearest City	Ahmedabad
10	Land available (Hectares)	91.83
11	Water requirement (LPD)	13,000
12	Annual Global Irradiance (kWh/m ²)	2015
13	Type of PV Module	Multi Crystalline
14	Proposed Capacity (MW)	25 MWp
15	Total no of PV modules (Number)	105192
16	Inverter model	Bonfiglioli RPS TL 1220 PCU
17	Annual electricity supplied to grid (MWh)	42891.460
18	Annual Plant Load factor (%)	19.59
19	Project Cost (Million INR)	2955.47

A social safeguards review was conducted for the Project on 25 February 2012 to check the project's compliance to the ADB 2009 Safeguards Policy Statement (SPS) – Safeguards Requirements (SR) on 2 Involuntary Resettlement and (SR) 3 on Indigenous Peoples. The review comprised of site visit to the plant area, including the labour camps, canteen facility, the access road leading to the site; informal discussions with few of the landowners and local community members; meetings with the management at Corporate Office in Delhi; and review of available project documentation. The site photos are attached as Appendix 1.

1.2 Need for the Project

Fast economic growth of the state of Gujarat has resulted in increase in electricity consumption by the industrial and commercial sectors. With the current available capacity, Gujarat is not in a position to meet its requirement either in energy requirement terms or peak capacity requirement terms. Energy requirements of the Gujarat state has increased from 53693 MU in FY 2001-02 to 70412 MU in FY 2009-10 with an energy shortfall of 3149 MU in FY 2009-10.

The Electricity Act 2003 stipulates minimum percentage of energy to be derived out of renewable energy sources which shall be binding on all states. Also the Gujarat Electricity Regulatory Commission has made it mandatory for distribution licenses in the state to purchase a fixed percentage of their total power procurement through renewable energy sources, both solar and non solar.

1.3 Project Location

The project is located at 23°15'58.8"North altitude and 71°46'42.9" East longitudes. The site is located in Kathada, Ahmedgad and Savda villages in Surendranagar District in the state of Gujarat, India. The surface topography is almost flat. Hence, limited site preparation/leveling activity is needed to make the land flat as per the requirements of solar PV power plant. The entire area is shadow free as there are no shading elements like mountains, large sand dunes, etc on the site. Figure 1 and 2 depicts the map of the region indicating the project location.

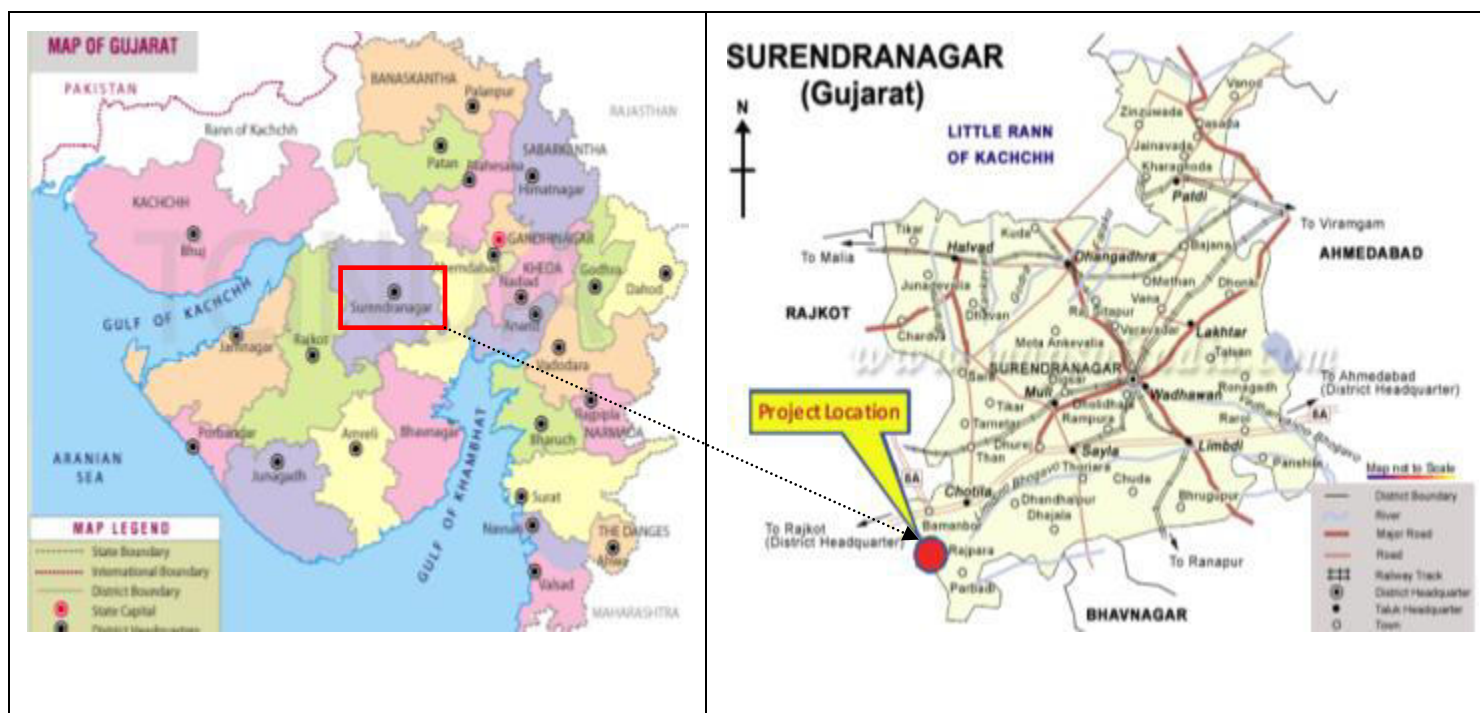


Figure 1: District map of Gujarat and Surendranagar district marking the project location (Source: Detailed Project Report and www.tcindia.com)



Figure 2: Satellite view of Village Zainabad-- Prominent village in the project area (Surendranagar district), Gujarat

1.4 Project Status

An implementation schedule, outlining the sequence of major activities and the time required for engineering, construction, installation and commissioning of the 25MWp solar PV power plant is provided below. The solar plant is scheduled to be commissioned and start exporting power to the grid by end of September 2012.

Table.2:Project implementation schedule

Activity	May'11	Jun'11	Jul'11	Aug'11	Sep'11	Oct'11	Nov'11	Dec'11	Jan'12	Feb'12	Mar'12	Apr'12	May'12	Jun'12	Jul'12	Aug'12	Sep'12
Chattel																	
Land acquisition, demarcation, soil investigation, survey work																	
Construction of boundary wall / fencing, security hut and gate																	
Internal roads & drainage system																	
Foundations for modules																	
Structure design finalization and ordering of modules																	
Structure erection																	
Module erection																	
AC system equipment at site																	
Switchyard erection works																	
Erection of HT panels and other AC systems																	
LT room / inverter shed constructions																	
Inverters & transformers installation																	
Inverter testing and commissioning																	
GETCO line availability																	
Synchronization with grid																	
Commissioning																	

1.5 Objectives and Scope of the Report

This report is prepared to assess the compliance of the 25 MWp solar power project at Chattel with the 2009 ADB Safeguards Policy Statement, Social Analysis in Private Sector Projects, 2009, ADB's Gender and Development Policy, 1998, Social Protection Requirements as per ADB's Social Protection Strategy 2001 and IFC Performance Standards.

The social compliance audit that was conducted on 24 February 2012 at the project site at Chattel, District Surendranagar, Gujarat had the following objectives:

- Identify past or present concerns related to impacts on involuntary resettlement (physical or economic displacement) and ethnic minorities/Indigenous Peoples;
- Determine whether project actions were in accordance with ADB's SR2 and SR3 principles and requirements; and
- Prepare a corrective action plan (CAP) containing necessary remedial actions (if any)

1.6 Methodology

The following activities were undertaken for the purpose of conducting this audit:

- Data collection from secondary sources such as Forest Atlas and published GOIs data from 2001 population census statistics data, as well as from authorities such as Gujarat Department of Social Justice and Empowerment, and other Departments.
- Preparation of checklist for collecting project related information against ADB guidelines
- Review of national and local laws / regulations and procedures relating to land acquisition, employment of labour etc.
- Review of land allocation documents, permits and other relevant available documents
- Site visit to the plant area, labour camps, canteen facility etc.
- Interviews on a sample basis with the following:
 - Employees at the site
 - Contract labour including their family members staying at the labour camps
 - Local community people around the site
 - Land owners

2. Audit Findings – Involuntary Resettlement

2.1 Land requirements for the Project

The total land available for the Project's solar power generation facility is 91.83 Hectares (ha). The land has been acquired from 42 landowners from three villages Kathada, Savda and Ahmedgadh. Out of the total land area, the PV module array has been established in 57.87 ha, while 1.21 ha was required for the balance structures such as the control room and switchyard. The remaining 32.74 ha is an open area including road coverage.

Table.3: Land details

Village	Type of Landuse Prior acquisition	Area in (Hectares)
Kathada	Agriculture	73.67
Savada	Agriculture	13.00
Ahmedgadh	Agriculture	5.16
Total		91.83

2.2 Land acquisition process and compensation

The land acquired for the project site is totally private land and has been purchased on a voluntary basis (willing seller-willing buyer basis) from the land owners. A third party (land arranger) was appointed by the Company for helping in the purchase of land for the project. The land was purchased from forty two (42) land owners in Kathada, Savda and Ahmedgadh. The compensation rate offered and paid to the land owners on an average was INR 51 per square metre of land which was more than the existing Government circle rates of INR 48 to 50 per square metre of land depending upon the time of purchase. The payment of compensation and land registration process was completed during the period from October 2011 to January 2012.

Discussions with land owners on a sample basis during site visit indicated that the land sold for the project was not much productive for them because of the higher salt concentration in the ground water. As per the land owners, the sale of land came as an opportunity to earn income from an otherwise unproductive land. The payment provided against the land purchased has helped these farmers to find alternative land in a more fertile area or start an alternate livelihood. Also, as per the landowners; there were other productive plots that were available with them. Mostly cash crops such as cotton and groundnuts are cultivated in the region.

2.3 Land or Right of Way (ROW) Requirements for Associated Facilities

The solar power plant will be using the following associated facilities: access roads, transmission lines and sub-station. The project will utilize the existing village road; no new roads will be built as part of this project. The power generated from the proposed solar power plant would be evacuated through a 66kV transmission line to an existing sub-station (Patdi) of GETCO, situated about 7.6 km from the project site. As the project is planned under the Solar Power Policy (2009) of the state of Gujarat, and as per the terms of Power Purchase Agreement, it is the responsibility of GETCO to arrange, provide and maintain the power

transmission evacuation facilities upto the 66 kV switchyard of the project. However, in the interest of meeting the commissioning schedule for the project, it was agreed between GETCO and the Company that the Company would manage the construction of transmission lines under the overall supervision and approval of GETCO.

The Construction of the 66 kV approx. 7.6 km transmission line from Chattel to the Patdi GETCO substation will require the setting up of 34 towers. Each tower footing required 75 sq.m of land. The cost of transmission line will be borne by CCPL. For setting up of transmission line towers, 36 landowners have been compensated. A total compensation of around INR 3.5 Million has been paid or approximately INR 0.1 Million per tower footing. The period of payments to landowners and tower erection was December 2011 – April 2012. No further land acquisition or involuntary resettlement issues are expected from the use of the substations which have been in existence for more than 10 years. The construction of transmission is being concluded and expected to be complete by September 2012.

To that effect, the Company has awarded transmission line contract to contractors who are nominated and approved by GETCO. Under these contracts the works have been executed under the supervision of GETCO engineers and in line with GETCO existing policies and frameworks.

Table 4 Information on Associated Facilities

Associated Facilities	Responsible Agency	Existing or New	Type of Land
Access Road	Existing Village Road (State Govt.)	Existing	Agriculture
Transmission Line	Owner : GETCO	New till substation : Expected date of Completion : 20 th September.2012	Private Agriculture & Govt. Waste Land
Substation	Owner: GETCO	Existing	

2.4 Extent of Involuntary Resettlement Impacts

There were no permanent or temporary inhabitants dwelling on the site as confirmed by interviews with the local community/village residents during the site visit. The project site is located far from the coast line and no *banders* or fishing communities were affected. The project also does not require land acquisition of *gauchar* or grazing land or any state-owned wastelands. Given the characteristics of the site as described above, the construction and operation of the power generation site is not expected to have involuntary resettlement impacts.

The project has complied with the national laws and regulations on land acquisition and has incorporated ADB's SPS (2009) as follows:

- Meaningful consultations with affected people in the issues of land acquisition, or loss of livelihood, if any, have been conducted
- Employment opportunities have been provided to few of the project affected people and local villagers during project construction activities

- Established a grievance redressal mechanism to receive and facilitate resolution of the concerns of affected persons. Please refer section 5(i) for details on community grievance redressal mechanism.

2.5 Applicable Regulations governing transfer of land to the Project

The land transfer to the project has been done as per section 55 of the Saurashtra Gharkhed Tenancy Settlement and Agriculture Land Ordinance 1949 (as amended in 1997¹) applicable in Gujarat. Section 55 outlines the provisions for the Sale of land for *bonafide* industrial purpose. The following table shows how the acquisition has complied with the provisions of this ordinance:

Provisions	Status of Compliance
(1) Nothing in section 54 shall prohibit the sale or the agreement for the sale of land for which no permission is required under sub-section (1) of section 65B of the Bombay Land Revenue Code, 1879 in favour of any person for use of such land by such person for a <i>bonafide</i> industrial purpose:	
Provided that – (a) The land is not situated within the urban agglomeration as defined in clause (n) of section 2 of the Urban Land (Ceiling and Regulation) Act, 1976.	Not Applicable (NA)
(b) Where the area of the land proposed to be sold exceeds ten hectares, the person to whom the land is proposed to be sold in pursuance of this sub-section shall obtain previous permission of the Industries Commissioner, Gujarat state or such other officer, as the State Government may, by an order in writing, authorize in this behalf,	Permission has been obtained from the Industries Commissioner for the project. Attached
(c) The area of the land proposed to be sold shall not exceed four times the area on which construction for a <i>bonafide</i> industrial purpose is proposed to be made by the purchaser: Provide that any additional land which may be required for pollution control measures or required under any relevant law for the time being in force and certified as such by the relevant authority under that law shall not be taken into account for the purpose of computing four times the area,	
(d) Where the land proposed to be sold is owned by a person belonging to the Scheduled Tribe, the	No land has been purchased from person belonging to the Scheduled Tribe. . All the

¹ See amendment available from
http://www.revenuedepartment.gujarat.gov.in/revenuefinal/gujarati/pdf/gr03_guj_act_no-06_1997.pdf

Provisions	Status of Compliance
sale shall be subject to the provisions of section 73AA of the Bombay Land Revenue Code, 1879.	landowners from whom land was purchased were from the Hindu community other than Scheduled Tribe
(2) (a) Where the land is sold to a person in pursuance of sub section (1) (here in after referred to as "the purchaser"), he shall within thirty days from the date of the purchase of the land for a <i>bonafide</i> industrial purpose, send a notice of such purchase in such form along with such other particulars as may be prescribed, to the Collector and endorse a copy there of to the Mamlatdar.	The Notice of Collector and endorsement of registered sale deeds are being complied with the completion of land acquisition for the project.
(b) Where the purchaser fails to send the notice and other particulars to the Collector under clause (a) within the period specified therein, he shall be liable to pay, in addition to the non-agricultural assessment leviable under this Ordinance, such fine not exceeding two thousand rupees as the collector may, subject to rules made under this Ordinance, direct.	
(c) Where, on receipt of the notice of the date of purchase for the use of land for a <i>bonafide</i> industrial purpose and other particulars sent by the purchaser under clause (a), the Collector, after making such inquiry as he deems fit –	
(i) is satisfied that the purchaser of such land has validity purchased the land for a <i>bonafide</i> industrial purpose in conformity with the provisions of sub-section (1), he shall issue a certificate to that effect to the purchaser in such form and within such time as may be prescribed,	Certificate will be issued once the process under Section 2A is complete
(ii) is not so satisfied, he shall, after giving the purchaser an opportunity of being heard, refuse to issue such certificate and on such refusal, the sale of the land to the purchaser shall be deemed to be in contravention of Section 54.	

3. Audit Findings: Indigenous Peoples

3.1 Project Context

The total land acquired by CCPL falls within the villages namely Kathada, Savda and Ahmedgadhi in Surendranagar District, Gujarat State. Almost 70% of the villagers belong to the Hindu community. The prominent castes include Darbari, and Bramhins.

Village-Kathada

Kathada is a mid-sized village located in the district of Surendranagar, Gujarat (India). It is located at a distance of around 68 km from its District Main City Surendranagar and 86 km from its State Capital Gandhinagar. As per the records of Census 2001, the village has a population of about 1,766 persons living in around 354 households. Based on the population, it can be noted that Kathada village has a healthy sex ratio. Most of the landowners from whom land was purchased belonged to the Hindu community not belonging to Scheduled Tribes. Majority of the households rely on agriculture as their main source of income in the village.

Based on our discussions with the local community members on a sample basis, it was observed that no person belonging to scheduled tribe was currently residing in the village.

Population Details

Total Population	1,766
• Male Population	884
• Female Population	882

Village-Savda

Savda is a mid-sized village located in the district of Surendranagar, Gujarat (India). It is located at a distance of around 58 km from its District Main City Surendranagar and 96 km from its State Capital Gandhinagar. As per the records of Census 2001, the village has a population of about 1,528 people living in around 302 households. Population wise, Savda village has a healthy sex ratio. Land for the project site was purchased from only two landowners community from the village belonging to the Hindu and Muslim community respectively. Majority of the households rely on agriculture as their main source of income in the village.

Based on our discussions with the local community members on a sample basis, it was observed that no person belonging to scheduled tribe was currently residing in the village.

Population Details

Total Population	1,528
• Male Population	804
• Female Population	724

Village- Ahmedgadh

Ahmedgadh is one of the smallest Villages in Dasada Taluk in Surendranagar District in Gujarat State. Ahmedgadh is at a distance of 71 km from its District Main City Surendranagar and around 84 km from its State Main City Gandhinagar. As per the records of Census 2001, the village has a population of about 264 persons living in around 51 households. Based on the population, it can be noted that Ahmedgadh village has a healthy sex ratio. All the landowners from whom land was purchased belonged to the Hindu community not belonging to Scheduled Tribes. Majority of the households rely on agriculture as their main source of income in the village.

Based on our discussions with the local community members on a sample basis, it was observed that no person belonging to scheduled tribe was currently residing in the village.

Population Details

Total Population	264
• Male Population	147
• Female Population	117

Demographic details of the Surendranagar District as per Census 2001:

Total Population	1,515,148
• Male Population	787,650
• Female Population	727,498
Total Workers	
• Main Workers	512,038
• Marginal Workers	135,571
• Non-Workers	867,539
Literate Population	316172
• Literacy Rate	61.61
• Literate (Male)	487,094
• Literate (Female)	294,061
Number of SC (Largest Three)	
• Mahyavansi etc.	83,092
• Bhambi etc.	51,060
• Bhangi etc.	14,289
Number of ST (Largest Three)	
• Padhar	10,916
• Bhil etc	2,133
• General Tribes	363

The project construction and operation will not in any way affect the dignity, human rights, livelihood systems and culture of the residents of the village. Moreover, the lands where the project's solar power generation facility are being constructed are not owned, used, occupied, or claimed as ancestral domain or asset of any tribal groups. The project is

therefore expected to be classified as category C for both involuntary resettlement and IPs.

4. Consultation and Participation

During project construction, the Company held meetings and public consultations with the residents of Kathada, Savda and Ahmedgadh Villages. The Company made a presentation on the proposed project, development prospects, project impacts and measures to mitigate possible negative impacts. The prospects of improving social and economic status of the region as a result of a successful project implementation as well as corporate social responsibility (CSR) activities of the Company were also discussed. The CSR activities proposed by the Company and to be taken up during the operational phase of the project include:

- Solar light for temple
- Assistance for village schools
- Transportation facility
- Women Empowerment Programmes
- Drinking water facility

During the site visit, discussions were undertaken on an informal basis with a group of 7-8 community members from Kathada, Savda and Ahmedgadh villages who confirmed that they were made aware of the project by the Company. They indicated their satisfaction with the project which will bring more jobs to the village and opportunities to set up small businesses for construction and operational workers.

5. Audit Findings: Other Social Considerations

Other social considerations addressed in this review are related to employee engagement, gender relations, provision of facilities for labour force and safety.

a) Employee Engagement

CCPL, has an existing human resources policy and manual covering employee benefits, equal opportunity, non discrimination, grievance mechanism and others that needs to be followed at all site locations. These include procedures for hiring and recruiting, probation, training, performance review, promotion, insurance, salary and compensation, resignation, lay-off and retrenchment, leave and vacation, and superannuation, which follow Indian labour laws. The policies have been displayed at the CCPL site in local language for the awareness of the workers. Most of the construction labourers at site are employed on contractual basis. Worker committees have also been formed at the site location on health and safety, harassment and abuse and grievance handling for consultation with the workers.

The preference of the company is to hire local labour during project construction provided they meet the required selection criteria. It also has a standard clause in the contractor's

agreements, binding the contractor to comply with the local labour laws and covers ILO standard.

b) Labour Influence

Construction phase

During construction activities, there will be a sizeable influx of population and labour colony is being constructed with basic amenities for the labour working on the project. The peak labour population is approximately 650-700 laborers for three months and may have an impact on the social fabric of the area surrounding the project. This will have an effect on social fabric of the area surrounding the project. However, this impact is envisaged to be insignificant due to the following reasons:

- Temporary labour colonies, equipped with basic amenities, have been situated in the areas already acquired for the project.
- The impact is temporary in nature as it is restricted to the construction phase of the project. After construction phase, the areas acquired by labour colonies shall be reverted to the status at the preconstruction phase.

Therefore, conflict of the migrating labour with locals, will not take place during the construction phase.

Operation Phase

No impact on the local life pattern is envisaged due to operational phase of the project.

c) Gender and Development

- Women were also involved during the community consultation process held during the construction phase of the project. However, no issues or concerns were raised by the women participants during the consultation process.
- No adverse impact could be envisaged on women in the nearby villages due to the solar power project. The Company has a standard clause in the contractor's agreements, binding the contractor to comply with the local labour laws. The clause includes the following:
 - Local labour to be hired as much as possible;
 - Ensure labour related regulations are met;
 - In case of outside labour, ensure that their working conditions as well as camps meet local regulations and best practice;
 - Health and safety training of the labour, raising awareness about STDs, HIV and maintaining behavior standards while moving in the community should be a priority
 - Community should be consulted at regular intervals. Any complaints or concerns with respect to labour should be addressed without delay

The project manager ensured compliance jointly with team and contractors during the construction phase of the project.

- The Company has proposed to initiate women empowerment programmes in the nearby villages during the operational phase of the project.
- On an average, 5 %- 7% of female workers out of total workforce are employed during the construction phase of the project.
- The maximum number of female workers employed during the construction phase of the project was around 40. All the female workers were hired on contract basis.
- Separate accommodation facility has been provided to female workers staying with their families at the labour camp.
- Migrant workers who brought their families during the construction phase of the project were provided separate accommodation facility in the labour camp. In order to ensure health and safety of such workers and their families, the company has a standard clause in the contractor's agreements, binding the contractor to comply with the local labour laws.

d) Working Conditions

- Adequate steps have been taken to prevent accidents and injury to health arising out of, associated with, or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment
- Regular health and safety trainings are provided to workers at site
- Fire mock drills are being conducted to ensure that all workers in the unit are familiar with the site's overall evacuation procedures
- Separate toilet facilities for men and women, and drinking water facility have been provided to workers at site locations

e) Prohibition of child labour

- No instance of child labour or young worker was observed at the time of the site visit
- The company has strict policy in place not to employ anyone below the age of 18 years. These policies and procedures conform to the provisions of the relevant ILO standards. The HR policy for contract workers also restricts the employment of child labour by contractors

f) Payment of wages

- Minimum wages are paid to the workers at site as per the applicable minimum wages in Surendranagar, Gujarat
- All eligible workers have been covered under ESI (Employees State Insurance) & EPF (Employees Provident Fund) schemes

- The workers are paid equal wages for similar kind of work regardless of gender.

g) Freedom of association

- Workers in the Company are free to join or form trade unions of their own choice and bargain collectively as per the Trade Unions Act, 1926. However, the workers were not associated with any trade union during the construction phase of the project. The Company has developed a parallel means for independent and free association and bargaining for the workers by the formation of worker committees including adequate representation from management and workers. Worker committees have been formed to help workers raise concerns they may have with regard to plant working conditions and also increase their involvement in improving the work environment of the plant.
- Three committees formed comprising representation from management and workers were formed include
 - 1) Health & Safety Committee
 - 2) Anti -Sexual Harassment Committee
 - 3) Grievance Handling Committee

h) Working Hours

- Workers are not required to work in excess of 48 hours per week at the site location and are provided with at least one day off for every 7 days period on average. This is in compliance with the national laws on working hours. The laws include:
- Contract Labour (Regulation and Abolition) Act, 1970
- The Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996

i) Grievance Management System

Environmental and social grievances were handled in accordance with the project grievance redressal mechanism defined under the HR policy for contractors. The Grievance Redressal Mechanism (GRM) for the project provides an effective approach for complaints and resolution of issues made by the affected community in a reliable way. This mechanism was established prior to construction and will remain active throughout the life cycle of the project. Open and transparent dialogue will be maintained with project affected persons as and when needed, in compliance with ADB safeguard policy requirements.

The major objectives of the Grievance Redressal Mechanism System are to:

- create a platform / process for prevailing proactive Industrial Relations;
- make people accountable for timely redressal of grievances;
- establish a robust process for addressing contract worker grievances;
- create a healthy working atmosphere and drive active engagement at contract worker level;

- have a strategy, supporting long-term business requirements at site;
- prevent minor disagreements developing into more serious disputes later on;
- defend against legal intervention

A Grievance Redressal Committee (GRC) was formed at the project site to ensure affected people's grievances on both environmental and social concerns are adequately addressed and facilitate timely project implementation. The GRC is comprised the following members:

- Project head;
- Liasoning officer – Site In charge/Admin;
- Land seller /Local Community Member

The Company has a robust grievance management system that drives proactive industrial relation (IR) environment, enabling fair opportunity to contract workers to appeal against a grievance through a systematic process.

The process includes the following:

Step 1: Maintenance of Grievance Registers:

Grievance Redressal registers are kept at following locations:

- Register No. 1: Kept in Time Office.
- Register No. 2 onwards: Kept at various locations of the Plant as decided by the local HR Head.

Step 2: Communication of Grievance Redressal Mechanism

- All contract workers informed / communicated to register their Grievances in Grievance Redressal Registers, at the convenient locations.
- These Grievances registered / recorded in the registers studied, analyzed and appropriate solution to query / grievances responded to concerned contract workers by Time Office In-Charge, at least twice a week. The Company shall endeavor to provide resolution to the aggrieved contract worker within 3 days of the grievance registered.

Grievance Redressal Mechanism for Local Community

- The Project Head is responsible for capturing, identifying, maintaining enquiries associated with community grievance in a register, and communicating progress to the concerned community member.
- A Register containing information such as date, time, location and names of villager and grievance; if any. The record will summarize what information was provided to or discussed with the individual land seller or local community member.
- At the Chattel site, there are no grievances related to land acquisition or from local community.

j) Labour Camps

The labour working on site is provided with temporary labour camps, which are close to the site. The labour camp facility is availed by the migrant workers and workers not residing in the nearby villages. Few of the workers are also staying with their family members including children at the camp. Separate shelters have been provided to such families. The labour camps have been provided with basic amenities like drinking water and electricity facility for the workers.

6. Conclusions and Recommendations

6.1 Conclusions

Based on the review of available documentation and information gathered during the site visit, there are no outstanding compensation issues with respect to the acquisition of land for the Project's solar power generation facility. The Project construction and operation will not in any way affect the dignity, human rights, livelihood systems and culture of the residents of the village. Moreover, the land where the Project's solar power generation facility has been constructed is not owned, used, occupied, or claimed as ancestral domain or asset of any tribal groups.

The information gathered from the available documents and discussions with relevant CCPL staff and affirmation from the CCPL management regarding their continued harmonious relationship with the communities in the Project area are considered sufficient to support the social compliance audit findings relevant to social safeguards. With respect to ADB's SPS, the Project's categorization on involuntary resettlement and indigenous peoples should be categorized as 'C' respectively, and no corrective action plan will be required.

Other social dimensions, such as recruitment of CCPL employees, local labour engagement through contracts and need based CSR initiatives based on community consultation by CCPL, are found to be satisfactory. The company has existing policies and procedures (e.g., human resource policy, contractual arrangements with contractors) to address potential concerns and issues. During implementation of the Project, the Company is expected to apply the same policies and procedures as those the company maintains, and it will be required to monitor and report to ADB on contractor's engagement of local employees and labours following the relevant clauses on contractor's agreement and the Company's human resources policy.

6.2 Recommendations

The need based CSR initiatives based on community consultations may be initiated during the operation phase. Regular Compliance check on the provision of PPE's to the labourers is important safety concern.

Appendix 1: Photos of the site



Photograph showing the module installation work



Photograph showing the switchyard area



Photograph showing toilet facility for female workers



Photograph showing storage area