

APPENDIX – I
(See Paragraph – 6)
FORM 1

Basic Profile:

Sr. No.	Item	Details
1	Name of the Project Proponent	Gujarat Industries Power Company Ltd
2	Name of the Applicant	Gujarat Industries Power Company Ltd
3	Contact Person	Shri N K Purohit
4	Designation	Chief General Manager (Mines)
5	Telephone No.	(02629) 261087
6	Mobile No.	
7	Fax No.	
8	Email Address	cgmminesoffice@gipcl.com
9	Website	www.gipcl.com
10	Pin Code	394110
11	District	Surat
12	State	Gujarat
13	Town/Village	Surat / Nani Naroli
14	Copy of document in support of the competence/authority of the person making this application to make application on behalf of the User Agency	Annexure – 1 – Authority Letter is attached.

Project Profile:

(I) Basic Information:

Sr.No.	Item	Details
1	Name of the project/s:	Vastan Lignite Mine (Regularization & Amendment in Environment Clearance)
2	Project Sector	1(a) Mining of Minerals Lignite Mining
3	Project Cost	Rs. 30000 Lakhs (actual expenditure incurred so far is Rs. 24487 Lakhs)
4	Location of the Project	Village – Nani Naroli, Taluka - Mangrol District – Surat State - Gujarat
5	Shape of the Project Land	Block (Polygon) Annexure – 2 – Project Site “.kml file” is attached.
6	Copy of Survey of India Toposheet	Annexure 3 – Project Area on Survey of India Topo Sheet is attached.
7	Brief Summary of Project	Annexure 4 – Brief Background & Summary of Project is attached. Annexure 5 – Justification for amendment in EC is attached.
8	Village/Town	Nani Naroli

9	Plot/Survey/Khasra Nos.	Annexure 6 – List of Khasra Numbers is attached.
10	Project Type	Modernization
11	Existing Capacity/Area (in Ha)	1536 Ha
12	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of Wells to be drilled.	1536 Ha; Proposed Capacity = 1.20 Million Tonnes/Annum (MTPA) Mine Plan = 1.20 MTPA Mine Closure Plan – 0.80 MTPA Consolidated Consent & Authorization (CC&A) from GPCB = 1.50 Lakh Tonnes/Month (1.80 MTPA)
13	MoEF File No.(Previous EC)	J-11015/40/95-I A.II(M) Limestone Mine within the overlapping leasehold area has separate File No. with separate EC.
14	Proposal No.	J-11015/40/95-I A.II(M) Limestone Mine within the overlapping leasehold area has separate File No. with separate EC.
15	Date of Previous EC	19-06-1996 Annexure 7 – Previous EC Letter is attached. Limestone Mine within the overlapping leasehold area has separate File No. with separate EC.
16	Category of Project i.e.' A' or 'B'	A
17	Does it attract the general condition? If yes, Please specify.	No
18	Does it attract the specific condition? If 'yes, Please specify.	No
19	Nearest railway station/airport along with distance in kms.	Nearest Rail Station – Kim (18.00 Kms) Nearest Airport – Surat (45 Kms)
20	Nearest Town, city, District Headquarters along with distance in kms.	Surat (45 Kms)
21	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete Postal Address with telephone nos. to be given)	Gram Panchayat – Nani Naroli Taluka – Mangrol District – Surat P.O – Mangrol – Pin: 394110
22	Name of the applicant	Gujarat Industries Power Company Ltd (GIPCL)
23	Registered Address	P.O. Petrochemical, Dist. Vadodara – 391346, Gujarat

24	Address for correspondence:	Gujarat Industries Power Company Ltd, At Nani Naroli, Taluka Mangrol, Dist: Surat-394110, Gujarat,
	Name	Shri N. K. Purohit
	Designation (Owner/Partner/CEO)	CGM (Mines)
	Address	GIPCL (SLPP) , At Nani Naroli, Taluka Mangrol, Dist : Surat, Gujarat
	Pin Code	394110
	E-mail	cgmminesoffice@gipcl.com
	Telephone No.	(02629)261087
	Fax No.	
25	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	No. Lignite Mine has been granted by Ministry of Coal, Government of India; Mining is a site specific project.
26	Interlinked Projects	Nil
27	Whether separate application of interlinked Project has been submitted?	Not Applicable
28	If yes, date of submission	Not Applicable
29	If no, reason	Not Applicable
30	Whether the proposal involves approval / clearance under: if yes, Details of the same and their status to be given. The Forest (Conservation) Act, 1980? The Wildlife (Protection) Act, 1972 The C.R.Z. Notification, 1991?	No. The Proposal does not involve approval / clearance under the Forest (Conservation) Act, 1980, Wildlife (Protection) Act, 1972 and C.R.Z. Notification 1991.
31	Whether there is any Government Order/ Policy relevant/ relating to the site?	Annexure 8 – Ministry of Coal vide its Letter No. 48024/1/94-CML dated 13-05-1996 accorded Prior Approval under Sec. 5(1) of the MMDR Act 1957 for grant of Mining Lease over 1536 Ha area.
32	Forest land involved (hectares)	Nil
33	Whether there is any litigation pending against the project and /or land in which the project is proposed to be set up?	No
	Name of the Court	Not Applicable
	Case No.	Not Applicable
	Orders/directions of the Court, if any and its relevance with the proposed project.	Not Applicable

- Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.)

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Total Project Area = 1536 Ha Annexure 9 - Existing Land Use Plan is attached. Annexure 10 - Map indicating Post Mining Land Use Plan at the end of OC Mining is attached.
1.2	Clearance of existing land, vegetation and buildings?	Yes	Land within Mining Lease Area shall be cleared off vegetation and buildings as per requirement for undertaking mining & allied activities. Further, removal of about 2,05,722 trees planted over the Reclaimed & OB Dump Area shall be involved in order to utilize this land for installation of the proposed Solar Panels for Power Generation.
1.3	Creation of new land uses?	Yes	The Mining Project shall create new land uses.
1.4	Pre-construction investigations e.g. bore holes, soil testing?	No	Geological reserves have already been proved.
1.5	Construction works?	Yes	Construction Work for installation of Solar Power PV panels shall be undertaken as per requirement.
1.6	Demolition works?	No	There is no such requirement.
1.7	Temporary sites used for construction works or housing of construction workers?	No	There is no such requirement.

1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations.	Yes	The Project shall involve construction for Solar Power PV Panels etc as per requirement.
1.9	Underground works including mining or tunneling?	No	Not Applicable
1.10	Reclamation works?	Yes	Reclamation Works shall be undertaken as per Approved Progressive Mine Plan and Revised / Modified Mine Closure Plan during the Project Operation & Closure Period.
1.11	Dredging?	No	Not Applicable
1.12	Offshore structures?	No	Not Applicable
1.13	Production and manufacturing processes?	Yes	Lignite Production by mechanized opencast mining methodology using Shovels & Dumpers along with other Heavy Earth Moving Mining Machinery. For Limestone Mining in the same area separate EC has been obtained.
1.14	Facilities for storage of goods or materials?	Yes	Apart from facilities required for storage of goods & materials to be used during mining operations, OB Storage Area shall be created in the form of Internal Dumps. Further, the Mining Lease Area shall be having a Lignite Stock Yard.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Solid Wastes that will be generated in course of Lignite mining are overburden material consisting of black cotton soil, variegated clay of different size. Total volume of OB generated till 31 st March 2018 is 282.17 Million CuM. Out of this 85 Million CuM OB has been

			accommodated in External OB Dump and 197.17 Million CuM has been dumped internally in mined out lignite areas. Further, about 82.194 Million CuM, OB shall be generated till the end of the life of the Mine. Thus, total OB generation shall be 364.36 Million CuM. The mine water is being treated in sedimentation pond and workshop effluent area also being treated in Oil & Grease Traps. Garland drains have been provided around mine pit and external dump.
1.16	Facilities for long term housing of operational workers?	Yes	The Project has provided for Facilities over 10 Ha area for Mining Staff.
1.17	New road, rail or sea traffic during construction or operation?	No	Not Applicable
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	No new transport infrastructure is required for the Project.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Existing transportation route shall be used during Project Operation Period for transport of Lignite to SLPP.
1.20	New or diverted transmission lines or pipelines?	Yes	New Transmission Lines shall be required for proposed Solar PV Power Plant over Reclaimed/OB Dump Area.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not Applicable
1.22	Stream crossings?	No	However, the ML Area of 1536 Ha has seasonal streams flowing through the area of proposed mining & allied activities.

1.23	Abstraction or transfers of water from ground or surface waters?	Yes	The Project requires water for Domestic Use, Dust Suppression, Solar Panel Washing, Plantation etc. During Mining Operations the intersecting aquifers shall be contributing to water inflows in the mine workings. Abstraction / Pumping of this water from the mine pit is involved. The application to CGWA for abstraction of groundwater has been submitted on 08-03-2017.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	The Project involves change in surface topography due to mining operations & creation of new land uses. As a result, there would be change in the local drainage and surface run-off. Efforts shall be made to channelize the surface runoffs in accordance with the natural drainage pattern of the area.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Personnel shall be travelling from Villages / Colony to Mine by using different mode of transports. The transport of OB from Mine to OB Dump / Backfilling Site shall be involved. Lignite shall be transported from Stack Yard by Belt conveyor to SLPP located at about 2.5 Kms.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	The Project shall involve long term dismantling / decommissioning / restoration works which shall be undertaken in accordance with the Approved Progressive Mine Closure Plan and Final Mine Closure Plan.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not Applicable

1.28	Influx of people to an area in either temporarily or permanently?	Yes	Permanent influx of people in the area shall take place due to proposed mining & allied activities.
1.29	Introduction of alien species?	No	No introduction of Alien Species is envisaged.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity is envisaged.
1.31	Any other actions?	No	Not Applicable

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	The ML Area of 1536 Ha is already under use for mining & allied activities. About 53.90 Ha area (Vastan Village, undisturbed area & area between canal and ML Boundary) shall be free from mining activities.
2.2	Water (expected source & competing users) unit: KLD	Yes	The total requirement of water for the Project shall be 982.20 KLD; Limestone Mine = 88 KLD Lignite Mine = 818 KLD 5 MW Solar PP = 20 KLD 75 MW Solar PP = 56.20 KLD
2.3	Minerals (MT)	No	Use of any mineral for construction or operation of project is not envisaged.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	The Project shall involve use of Construction Material for undertaking various civil works during the Project life time. The material shall be sourced through local market. Further, the Project shall involve installation of Solar Power Plant on Reclaimed/OB Dump Area.

2.5	Forests and timber (source – MT)	No	Use of forests / timber during construction or operation of project is not envisaged.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	The requirement of power for the Project is 500 KVA. The power shall be sourced through GUVNL Network. For emergency Diesel Generator Sets shall be maintained and operated as per requirement. The diesel shall be sourced through local market.
2.7	Any other natural resources (use appropriate standard units)	No	Not Applicable

3. Use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	No drilling & blasting is envisaged in this Mining Project.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases).	No	Not Applicable
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Not Applicable
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	Not Applicable
3.5	Any other causes	No	Not Applicable

4. Production of solid wastes during construction or operation or Decommissioning (MT/month)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	Total volume of OB generated till 31 st March 2018 is 282.17 Million CuM. Out of this 85 Million CuM OB has been accommodated in External OB Dump and 197.17 Million CuM has been dumped internally.

			Further, about 82.194 Million CuM OB shall be generated till the end of the life of the Mine. This OB shall be dumped internally in mined out lignite areas. Thus, total OB generation shall be 364.36 Million CuM out of which 279.31 Million CuM shall be dump internally. The existing OB Dump Area accommodating 85 Million CuM has already been stabilized and shall be used for installation of proposed Solar PV Power Plant.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Domestic waste in small quantities is generated from the Staff Colony. The same is being disposed off in accordance with applicable statutes.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Generation of Hazardous Wastes in the form of HEMM, burnt oil, used lubricants etc is involved. The Hazardous Wastes is being disposed off/recycled through authorized vendor/agencies
4.4	Other industrial process wastes	No	Apart from Overburden, generation of no other industrial waste is envisaged.
4.5	Surplus product	No	Not Applicable
4.6	Sewage sludge or other sludge from effluent treatment	No	Not Applicable
4.7	Construction or demolition wastes	Yes	The Project involves long term dismantling / decommissioning / restoration works which shall be undertaken in accordance with the Approved Progressive Mine Closure Plan and Final Mine Closure Plan. The construction / demolition waste shall be backfilled in the mined out lignite area.
4.8	Redundant machinery or equipment	Yes	Old / used HEMM and other equipments shall become redundant after completion of the useful life. The same shall be disposed as scrap in accordance with Company Policy.

4.9	Contaminated soils or other materials	No	Generation of contaminated soils or materials is not envisaged.
4.10	Agricultural wastes	No	Generation of agricultural waste is not envisaged.
4.11	Other solid wastes	No	Not Applicable

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	There will be emissions of SO _x , NO _x and other pollutants from diesel operated HEMM and other equipment proposed to be used for mining & allied activities. The same shall be quantified and proper mitigation measures shall be suggested.
5.2	Emissions from production processes	Yes	There will be emissions of dust (PM ₁₀ & PM _{2.5}) and other pollutants from mining, transportation & allied activities. The same shall be quantified and proper mitigation measures shall be suggested.
5.3	Emissions from materials handling including storage or transport	Yes	There will be emissions of dust (PM ₁₀ & PM _{2.5}) and other pollutants from lignite / overburden loading, dumping / stacking and allied activities. The same shall be quantified and proper mitigation measures shall be suggested.
5.4	Emissions from construction activities including plant and equipment	Yes	There will be emissions of dust (PM ₁₀ & PM _{2.5}) and other pollutants. The same shall be quantified and proper mitigation measures shall be suggested.
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	Yes	There will be generation of dust from mining & other allied activities.

5.6	Emissions from incineration of waste	No	No incineration of waste is envisaged in the Project.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No open burning of waste is envisaged in the Project.
5.8	Emissions from any other sources	No	Not Applicable

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	There will be generation of noise & vibrations from construction, mining, haulage & transport of lignite & overburden and other allied activities. Proper mitigation measures are in place.
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	There will be generation of noise and vibrations during construction and demolition. Proper mitigation measures are in place.
6.4	From blasting or piling	No	Not Applicable
6.5	From construction or operational traffic	Yes	There will be generation of noise, vibrations as well as emissions from lignite and overburden transportation. Proper mitigation measures are in place.
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	Not Applicable

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Not envisaged
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Not envisaged
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not envisaged
7.4	From any other sources	No	Not envisaged
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not envisaged

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	Not Applicable
8.2	From any other causes	Yes	Risk of accidents shall be associated with Material Handling, Slope Failure, Fire in HEMM/Lignite etc. Proper precautions in accordance with applicable statutes shall be taken.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, Cloudburst etc)?	No	Not Applicable

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: ⇒ Supporting infrastructure (roads, power supply, waste or waste water treatment etc.) ⇒ housing development ⇒ extractive industries ⇒ supply industries ⇒ other	Yes	The area already has operating lignite and limestone mines in the vicinity. Development of additional infrastructure facilities and income due to this Project would lead to further development of secondary & tertiary industries dependent on Mining Areas.
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	The proposed installation of Solar Power PV Power Plant will in fact reduce more CO ₂ as compared to CO ₂ produced by number of trees generally planted in that area on the reclaimed land of the mining project is expected to have a positive impact on the environment.
9.3	Set a precedent for later developments	Yes	The Project would have positive impact on the local population due to enhanced opportunities for employment and generation of secondary & tertiary business opportunities. This will set precedent for later developments.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	The area already has operating lignite mines in the vicinity. Development of additional infrastructure facilities and income due to this Project would lead to further development of secondary & tertiary industries dependent on Mining Areas.

(III) Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological,	No	---

	landscape, cultural or other related value		
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	---
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
4	Inland, coastal, marine or underground waters	No	---
5	State, National boundaries	No	---
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	---
7	Defence installations	No	---
8	Densely populated or built-up area	Yes	A number of villages are located within 15 Kms of the Project Area.
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Villages within 15 Kms of the Project Area have sensitive man made facilities like hospitals, schools, places of worship and community facilities.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Yes	River Tapi is located at a distance of about 8.8 Kms on south side of the Leasehold Area. The Kakadapar Right Bank Main Canal passes at a distance of about 2.7 Kms on south-west side of the Lease. Further, the Ukai Right Bank Main Canal passes within the lease area on western boundary.
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	---
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	---

(IV) Proposed Terms of Reference for EIA Studies:

- A. Ministry of Environment & Forests had accorded Environment Clearance for Vastan Lignite Mine under the provisions of EIA Notification 1994 vide its Letter No. J-11015/40/95-IA.II(M) dated 19-06-1996.
- B. As per MoEF&CC Notification No. 1530(E) dated 6th April 2018, Vastan Lignite Mining Project falls under Category (b) i.e. the mining projects, which were granted environmental clearance under the EIA Notification, 1994 but not obtained environmental clearance for expansion / modernization / amendment under the EIA Notification, 2006.
- C. The present application has been submitted for bringing Vastan Lignite Mine under regulatory framework of EIA-2006.

- D. As per MoEF&CC Notification, the Expert Appraisal Committee (EAC) shall decide on the necessary due diligence including preparation of Environmental Impact Assessment Report & Public Consultation.
- E. GIPCL is operating the Vastan Lignite Mine since 1996 in environment friendly manner. Further, GIPCL is regularly monitoring the required Environmental Parameters and submitting the relevant details to Regional Office of MoEF&CC, Bhopal on regular basis.
- F. Further, GIPCL is operating Vastan Limestone Mine under the part of the same leasehold area for which separate Environment Clearance has been granted by MoEF&CC vide its Letter No. J-11015/112/2011-IA.II(M) dated 22-07-2015.
- G. During the process of obtaining the Environment Clearance for the Limestone Mine, the Public Hearing was conducted on 12th March 2013 wherein both, the Limestone Mining as well as Lignite Mining, Projects of GIPCL were discussed.
- H. Further, during the process of obtaining the Environment Clearance for the Limestone Mine, the EAC had deliberated the Compliance Report of the Regional Office of MoEF&CC on Vastan Lignite Mine and was satisfied.
- I. As per MoEF&CC Notification, the Expert Appraisal Committee (EAC) may approve grant of Environment Clearance for Vastan Lignite Mine of GIPCL under EIA Notification 2006 & requested Amendment in Land Use after necessary due diligence.

I hereby given undertaking that the data and information given in the application and enclosure are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date: 28/09/2018
Place: Nani Naroli

N.K. Purohit
28/09/2018

Signature of the Applicant
N.K. Purohit
Chief General Manager (Mines)
Authorized Signatory

NOTE:

1. The projects involving clearance under coastal Regulation zone Notification, 1991 shall submit with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the State coastal zone Management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild Animals, the project proponent shall submit the map duly authenticated showing by chief wildlife warden showing these features vis-à-vis the project location and the Recommendation or comments of the Chief Wildlife Warden thereon (at the stage of EC)."

3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/Environment Clearances, subsequent Clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project.

List of Annexures:

- Annexure – 1: Authority Letter for Authorized Signatory
- Annexure – 2: Project Location “.kml” file
- Annexure – 3: Project Area Map on Survey of India Toposheet
- Annexure – 4: Brief Background & Summary of the Project
- Annexure – 5: Justification for Amendment in Environment Clearance
- Annexure – 6: List of Khasra Numbers
- Annexure – 7: Previous Environment Clearance Letter.
- Annexure – 8: Prior Approval Letter for grant of Mining Lease from Ministry of Coal
- Annexure – 9: Existing Land Use Plan
- Annexure – 10: Post Mining Land Use Plan



**GUJARAT INDUSTRIES POWER COMPANY LIMITED
VADODARA**

ABSTRACTS OF MINUTES OF 244th MEETING OF THE BOARD OF DIRECTORS OF THE COMPANY HELD ON WEDNESDAY, 30TH MAY, 2012 AT 3.00 PM AT CONFERENCE ROOM, ENERGY & PETROCHEMICALS DEPT., BLOCK NO. 5, 5TH FLOOR, NEW SACHIVALAYA, GANDHINAGAR - 382 010.

3737 TO AUTHORIZE EXECUTIVE DIRECTOR (SLPP) AND GENERAL MANAGER (MINES) TO DEAL WITH ALL GOVERNMENT ORGANIZATIONS / DEPARTMENTS.

“RESOLVED THAT in supersession of the Board Resolution No.3537 dated 4th August, 2010, Shri S L Bose, Executive Director (SLPP) and Shri N K Purohit, General Manager (Mines) be and are hereby authorized severally and individually to represent the Company and to do all the things and deeds required including but not limited to sign, execute, file, make, submit, amend, withdraw, applications, deeds, documents, writings, to obtain approvals, permissions, licenses, memorandums, amendments etc. and to deal in all the matters of SLPP and Mines, with various Central Govt. and State Govt. Authorities, Departments, Organizations, Undertakings and all other Offices connected there with from time to time”.

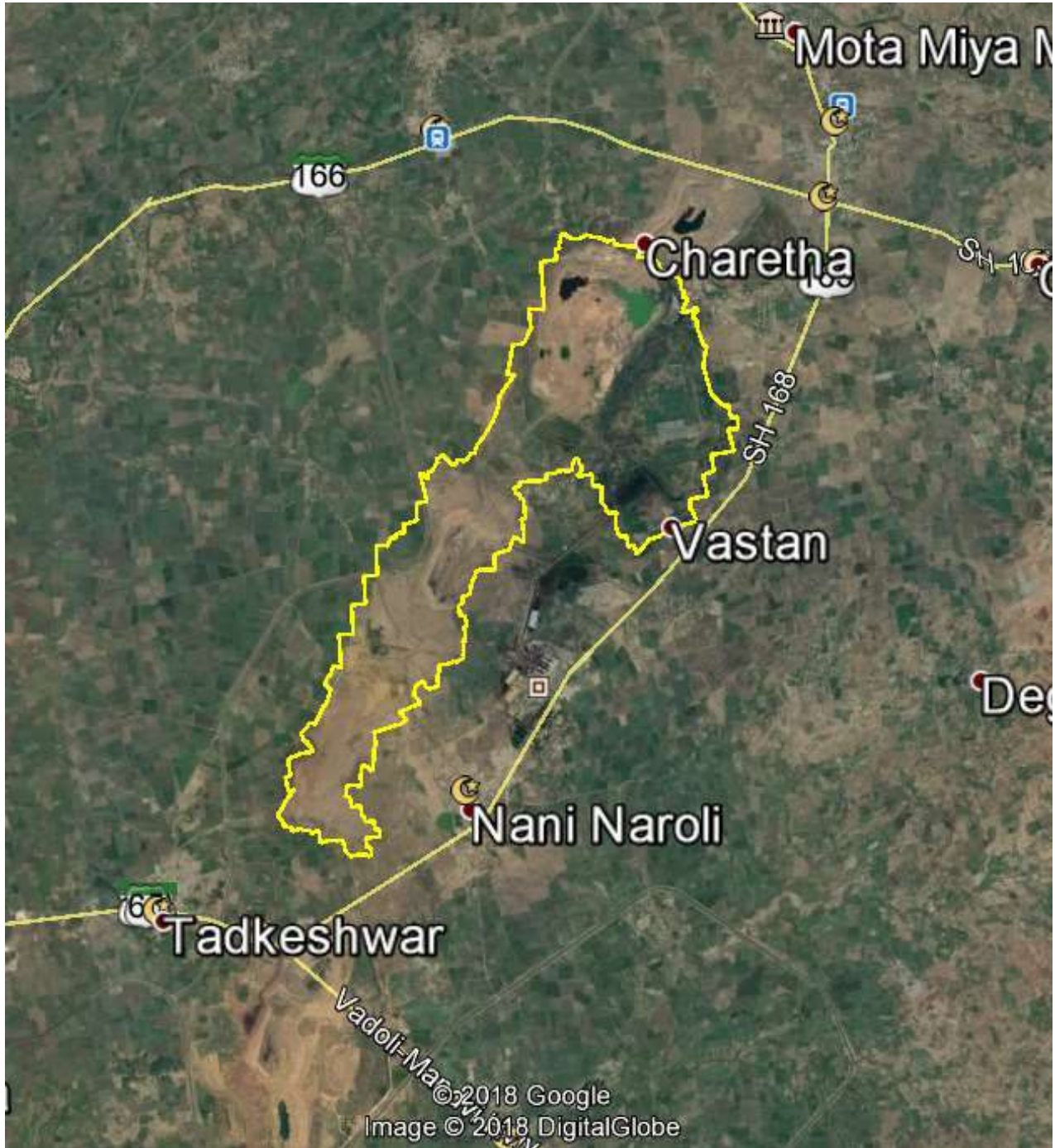
**CERTIFIED TRUE COPY
FOR GUJARAT INDUSTRIES POWER CO. LTD.**

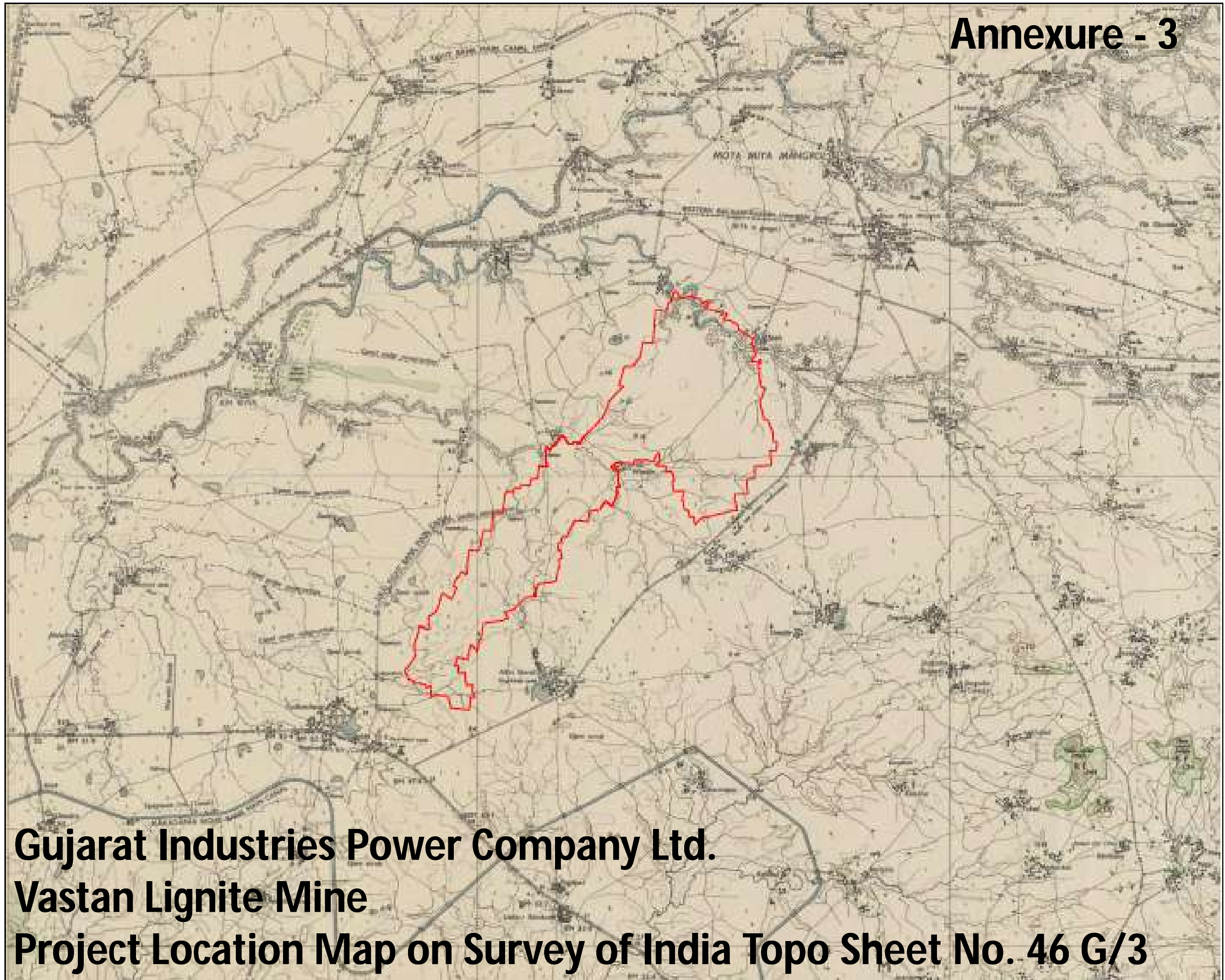
**Date: 03/05/2013
Place:Vadodara**


**CS A C Shah
Company Secretary & DGM(Legal)**

Lease Boundary on Google Image

Vastan Lignite Mine (Regularization & Amendment in Environment Clearance)





Gujarat Industries Power Company Ltd.

Vastan Lignite Mine

Project Location Map on Survey of India Topo Sheet No. 46 G/3

Vastan Lignite Mine

Project Background and Brief Summary

A. Project Background:

1. Ministry of Coal approved **Mining Plan for Vastan Lignite Mine @ 1.20 Million Tonnes/Annum** in the name of Gujarat Industries Power Company Ltd (GIPCL) vide Letter No. 48024/1/94-CML dated 15-12-1995.
2. Further, Ministry of Coal vide its Letter No. 48024/1/94-CML dated 13-05-1996 issued Prior Approval under Sec. 5(1) of the MMDR Act, 1957 for grant of Mining Lease over 1536 Ha area.
3. Ministry of Environment & Forests vide its Letter No. J-11015/40/95-IA.II(M) dated 19-06-1996 granted Environment Clearance over 1536 Ha for Vastan Lignite Mine under the provisions of EIA Notification-1994.
4. The State Government of Gujarat granted Mining Lease over 1536 Ha area in the name of GIPCL vide its Order No. MCR-1092-(G-8)-3626-CHH dated 04-07-1996 and executed the Mining Lease Deed over 1504.75 Ha on 31-08-1996.
5. Subsequently, GIPCL initiated mining of Lignite at Vastan Lignite Mine. During mine development operations, GIPCL encountered Low Grade Limestone in 80 Ha area within the 1536 Ha mining leasehold area. GIPCL was granted approval for inclusion of mineral Limestone in the existing Mining Lease of Lignite, by the Ministry of Steel & Mines, Govt. of India, vide letter no. 4/65/98.M IV dated 08-09-1998. The Industries & Mines Department (IMD), Govt. of Gujarat (GoG), issued Order for Limestone Lease vide letter No. MCR-1092-G.8-3626-CHH.1 dated 07-12-1998. Accordingly, the Lease Agreement for inclusion of Limestone in the existing Mining Lease of Lignite for a period coterminous with the period of original lignite Mining Lease, was executed by GIPCL with GoG on 15-10-1999. Utilization of Limestone, which is part of the Overburden of lignite deposits, was started by GIPCL with the objective of Mineral Conservation and Environment Protection.
6. The details of the Lignite Production from 1998-99 to 2003-04 are as under:

Year	Lignite Production (In Lakh Tonnes)
1998-1999	00.83
1999-2000	02.68
2000-2001	13.48
2001-2002	13.18
2002-2003	14.27
2003-2004	14.87
Total =	59.41

7. GIPCL prepared separate Mining Plan for Limestone Mining @ 0.425 Million Tonnes/Annum from the Mining Lease Area which was approved by Indian Bureau of Mines (IBM) vide its Letter No. 682(23)(378)/2005-UDP dated 28-04-2004.
8. GIPCL started mining of Limestone along with Lignite from 2004-05 and the details of production are as under:

Year	Lignite Production (in Lakh Tonnes)	Limestone Production (In Lakh Tonnes)
2004-2005	15.71	1.31
2005-2006	17.23	1.24
2006-2007	16.60	1.34
2007-2008	17.42	1.23
2008-2009	17.20	1.51
2009-2010	18.36	1.60
2010-2011	18.54	1.68
Total =	121.06	9.91

9. Subsequently, IBM vide its Letter No. 682(23)MS-547/09 MCCR(U) UDR dated 04-01-2011 approved the "Scheme of Mining" for Limestone for the period from 2009-10 to 2013-14.
10. GIPCL installed a 5 MW Solar PV Power Plant on the External OB Dump Area of the Vastan Lignite Mine within the Mining Lease. The 5 MW Solar PV Power Plant has been installed over 12.43 Ha Area under the "Gujarat Solar Power Policy" Scheme promoted by Government of Gujarat in Jan. 2012.
11. Ministry of Coal vide its Letter No. 48024/3/1998-Lig.(Part)/CA.I dated 08-07-2014 approved the **Mine Closure Plan indicating Lignite Production @ 0.80 Million Tonnes/Annum.**
12. Ministry of Environment, Forest & Climate Change vide its Letter No. J-11015/112/2011-IA.II(M) dated 22-07-2015 granted Environment Clearance over 80 Ha for Vastan Limestone Mine.
13. The details of the production done by GIPCL from Vastan Lignite Mine and Vastan Limestone Mine are as under:

Year	Lignite Production	Limestone Production
	(In Lakhs Tonnes)	(In Lakh Tonnes)
1998-2011	180.47	9.91
2011-2012	17.12	2.18
2012-2013	9.22	2.12
2013-2014	6.72	0.74
2014-2015	6.40	0.00
2015-2016	3.78	1.79
2016-2017	0.09	2.52
2017-2018	2.16	2.86
Grand Total =	225.96	22.12

14. MoEFCC vide its Notification No. 1385 dated 6th April 2018 has stipulated that mining projects which were granted environmental clearance under the EIA Notification 1994 but could not obtain environmental clearance for expansion / modernization / amendment under the EIA Notification 2006 shall make application in Form 1 within six months from the date of issue of the Notification.

15. GIPCL intends to install a 75 MW Solar PV Power Plant over 140 Ha Reclaimed and external OB Dump Area of Vastan Lignite Mine.
16. GIPCL has revised the Mine Closure Plan providing the details pertaining to use of Reclaimed Mining Land and external OB Dump area for installation of the Solar PV Power Plant and submitted the same to Ministry of Coal for approval vide its Letter No. GIPCL/Mines/Mining Closure Plan/2018-19/2562 dated 11-07-2018.
17. **Now, therefore considering all the above, GIPCL is seeking fresh Prior Environment Clearance from Ministry of Environment, Forest & Climate Change under the provisions of EIA Notification 2006 for 1536 Ha Mining Lease Area and peak capacity of 1.20 Million Tonnes/Annum.**

B. Project Summary:

Vastan Lignite Mine is an operating mine and the operations are being carried out by open cast mining technology by deploying HEMM i.e. Shovels / Dumpers combination and other support equipments. Lignite beds / seams of horizons I, II & III are being excavated, presently in the South quarry, as north quarry was already exhausted in the year June, 2012. The stripping ratio of lignite to OB of the North Quarry was 1:12.50 and it is expected that the life of the south quarry would be around 8 to 9 years at a planned production rate of 0.8 MTPY at a stripping ratio of 1:11.61.

The salient features of the Project are provided below:

1	Location of the Project	Village: Vastan, Taluka: Mangrol, District: Surat, State: Gujarat
2	Mining Lease Area	1504.75 Ha
3	Project Area	1536.00 Ha
4	Approved Mining Plan Capacity	1.20 Million Tonnes/Annum
5	Approved Mine Closure Plan Capacity	0.80 Million Tonnes/Annum
6	Total Geological Reserves	Proved = 47.70 Million Tonnes
7	Total Extractable Reserves	36.00 Million Tonnes
8	Reserves Extracted till May 2018	22.59 Million Tonnes
9	Reserves available for mining	7.08 Million Tonnes
10	Life of the Mine	9 Years
11	Mining Methodology	Open Cast Mining Methodology with conventional Shovel / Dumper Combination.
12	Stripping Ratio	1:11.61
13	Geo-Mining Parameters	
	a. No. of Lignite Seams (Zones)	3 Nos.
	b. Depth of Occurrence	19m to 130m
	c. Strike Direction	South East – North East
	d. Dip	3 ^o to 4 ^o (North West)
	e. Thickness Range	0.10m to 11.90m
	f. North Quarry Area	618.73 Ha
	g. South Quarry Area	615.27 Ha

Proposed Production Schedule

Financial Year	Production of Lignite (Million Tonnes)	OB (Million Cum)	Average Stripping Ratio
2018-19	0.80	9.288	1:11.61
2019-20	0.80	9.288	1:11.61
2020-21	0.80	9.288	1:11.61
2021-22	0.80	9.288	1:11.61
2022-23	0.80	9.288	1:11.61
2023-24	0.80	9.288	1:11.61
2024-25	0.80	9.288	1:11.61
2025-26	0.80	9.288	1:11.61
2026-27	0.68	7.89	1:11.61
TOTAL	7.08	82.194	1:11.61

Existing Land Use

Sr. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	1486.00	0.00	1486.00
2	Forest Land	0.00	0.00	0.00
3	Wasteland	50.00	0.00	50.00
4	Grazing Land	0.00	0.00	0.00
5	Surface Water Bodies	0.00	0.00	0.00
6	Settlements	0.00	0.00	0.00
7	Others (Specify)			
	Excavation Area (North + South Quarry)	1234.00	0.00	1234.00
	Top Soil Dump	7.00	0.00	7.00
	External Overburden Dump	210.00	0.00	210.00
	Roads	10.00	0.00	10.00
	Settling Pond + Nallah	4.10	0.00	4.10
	Lignite Stock Pile	7.00	0.00	7.00
	Office Complex / Camp	10.00	0.00	10.00
	Plantation (Green Belt)	248.88	0.00	248.88
	Balance Area (Undisturbed Area + Area under Vastan village + Mine Lease Area between canal and Mine Lease Boundary on Western Side.)	53.90	0.00	53.90
	Limestone Mining Area (Overlapping of Lignite Mining Area)	80.00	0.00	80.00
	Total Project Area =	1536.00	0.00	1536.00 Ha

Post Mining Land Use

Sr. No.	Land Use During Mining	Land Use (Ha)					
		Plantation	Water Body	Public Use	Undisturbed	Under Solar PV Panels	Total
1	Excavation Area (North + South Quarry)	186.28	40.22	0.00	0.00	807.00 (100* + 707**)	1033.50
2	Top Soil Dump (Cleared)	7.00	0.00	0.00	0.00	0.00	7.00
3	External Overburden Dump	170.00	0.00	0.00	0.00	40*	210.00
4	Roads	0.00	0.00	0.00	10.00	0.00	10.00
5	Settling Pond + Nallah	1.60	0.00	0.00	2.50	0.00	4.10
6	Lignite Stock Pile	7.00	0.00	0.00	0.00	0.00	7.00
7	Office Complex / Camp	10.00	0.00	0.00	0.00	0.00	10.00
8	Plantation (Green Belt)	200.50	0.00	0.00	0.00	0.00	200.50
9	Balance Area (Undisturbed Area + Area under Vastan village + Mine Lease Area between canal and Mine Lease Boundary on Western Side.)	0.00	0.00	0.00	53.90	0.00	53.90
10	Limestone Mining Area (Overlapping of Lignite Mining Area)	80.00	0.00	0.00	0.00	0.00	80.00
	Total Area =	582.38	40.22	0.00	66.40	847.00	1536.00

* 100 Ha (Reclaimed area) + 40 Ha (external OB dump area) = 140.00 Ha reclaimed area and external OB dump area as of now for the setting up of 75.00 MW Solar Power Plant.

** 807 Ha (Reclaimed area) + 40 Ha (external OB dump area) = 847.00 Ha will be at the end of mining life.

Progressive Mine Closure & CSR Activities

GIPCL is committed towards implementation of the Mine Closure Plan approved by Ministry of Coal. In accordance with the guidelines of Ministry of Coal, an amount equal to Estimated Annual Mine Closure Cost is to be deposited each year throughout the mine life computed at 5% annually in Escrow Account.

GIPCL has estimated that an amount of Rs. 165.76 Crores shall be required to be deposited in the Escrow Account. Out of this, Rs. 46.07 Crores has already been deposited by GIPCL till 31st March 2018.

Further, GIPCL has also incurred an expenditure of Rs. 156.97 Crores towards Progressive Mine Closure and CSR Activities which includes expenditure towards development of peripheral Green Belt around villages, mine, OB Dumps, infrastructure and residential complex, Avenue plantations, Bio reclamation of the external dumps, Progressive reclamation of internal dumps during ongoing mining operations as per programme undertaken for Integrated Socio-Economic Development of the mineral bearing area as under:

Sr. No.	Particulars of Environmental Protection work & Socio-Economic Development work	Expenditure incurred from 1996 to 31st March, 2018 (Rs in Lakh)
1	Development of peripheral Green belt around villages & in and around premises of mines including its maintenance & protection etc.	574.503
2	Waste Material Re-handled/ Back-filled from Internal/ External Dump include Top Soil removal & simultaneously spreading & dozing over backfilled void area of the mine and Completing backfilling of void & internal dumps including reclamation.	7346.27
3	Construction & re-construction of garland drains, settling ponds for collecting run off Storm Water & pumped out mine water for re-use etc.	84.98
4	Monitoring of environmental parameters of air, water quality, dust fall & meteorological data in and around mining area	19.346
5	Three year stage remote sensing to monitor change in land use pattern and related impacts due to mining	13.96
6	Socio-economic development for upliftment of overall standard /status & quality of life of surrounding population of villages of the project area.	7658.00
Total Expenditure Incurred =		15,697.06
Total Expenditure Incurred =		Rs. 156.97 Crores

End Use of Lignite

The lignite mined from Vastan Mine is being used in the Thermal Power Plant of GIPCL located at Village Nani Naroli, District Surat. The Surat Lignite Power Plant (SLPP) consists of four (04) units of 125 MW capacity each. SLPP- Phase I (Unit 1 & 2, 2 x 125 MW) is in commercial operation since Feb-2000 and SLPP Phase II (Unit 3 & 4, 2x125 MW) is in commercial operation since April, 2010. The Boilers are lignite fired and based on Environment friendly Circulating Fluidized Bed Combustion (CFBC) Technology, supplied by BHEL in technical collaboration with erstwhile LLB, Germany.

The production from Vastan Lignite Mine shall meet the part requirement of the SLPP.

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Vastan Lignite Mine

Justification for Amendment in the Environment Clearance

1. Ministry of Environment, Forest & Climate Change (MoEF&CC) had accorded Environment Clearance for Vastan Lignite Mine of M/s Gujarat Industries Power Company Ltd (GIPCL) under the provisions of EIA Notification 1994 vide its Letter No. J-11015/40/95-IA.II(M) dated 19-06-1996.
2. GIPCL has installed a 5 MW Solar Photo Voltic (PV) Plant on the External Overburden Dump Area within the Mining Lease of Vastan Lignite Mine. Further, we proposed to install another 75 MW Solar PV Plant over 140 Ha area (100 Ha backfilled reclaimed area & 40 Ha External OB Dump Area) within the Mining Lease.
3. **Thus, there is a change in the Land Use Pattern of the Project Area which has necessitated amendment in the Environment Clearance granted by MoEF&CC for Vastan Lignite Mining Project.**
4. Ministry of Renewable Energy, Government of India and National Solar Mission is envisaging a total of 100 GW of Solar Power Generation Capacity by 2022. Implementation of such a huge capacity will requires about 444790.00 acres of land.
5. GIPCL is already in the business of power generation and is committed for generation of power in environment friendly manner through Renewable Energy. Further, GIPCL believes that the reclaimed mining land and the land available over top of the external overburden dump can be put to effective and efficient use through generation of green power limiting the pollution which are otherwise be created by Power Generation by Coal/Oil/Gas. Simultaneously, it entails a huge saving in cost of land required for the similar project if located elsewhere thereby resulting economic power generation, which ultimately results in benefits to the end user.
6. An initiative in this direction has already been taken by GIPCL by way of installing and operating 5 MW Photo Voltaic Solar Power Plant located on the top of Over Burden Dump at Vastan Lignite Mine. Beside this, GIPCL has also successfully commissioned 1 + 1 MW distributed Solar Power Pilot Plants (DSPP) with novel concept of Agriculture activities, at two locations in Gujarat viz. at Village Amrol, Tal.: Ankalav, Dist.: Anand and at Village Vastan, Tal.: Mangrol, Dist.: Surat.
7. Change in Land Use of the Vastan Lignite Mine due to installation of the proposed 75 MW Solar PV Plant is expected to reduce generation of Carbon Dioxide (CO₂) as under:

Estimated Reduction in CO ₂ Generation		
Proposed Solar PV Plant Capacity	75	MW
Capacity Utilization Factor	22	%
Annual Power Generation	144540	MWh
CO ₂ generation through Conventional Coal Fired TPP	0.94	Tonnes/MWh
Therefore, Reduction in CO ₂ due to this Solar PV Plant	135868	Tonnes/Annum
CO ₂ generation by Surat Lignite Power Plant	1.28	Tonnes/MWh
Therefore, Reduction in CO ₂ due to this Solar PV Plant	185011	Tonnes/Annum

8. Annual CO₂ reduction of 135868 Tonnes/Annum is equivalent to 13586800 additional tress.

9. By using Reclaimed Mining Land for Solar, the Electricity generated from this solar project will be sold to DISCOMs at very competitive rate which will be in the Public interest. Thus, benefit can be passed on to the end user.
10. Solar Project will provide direct and indirect employment, particularly local community who will be engaged for plant O&M.
11. The sun is a renewable energy resource. Solar energy is a silent and green energy source, which pollutes less than almost every other source of energy, and will help to reduce carbon footprint. Thus solar PV is environmentally friendly.
12. Solar power doesn't produce greenhouse gases and it doesn't pollute water or any other part of nature. It is almost self sufficient.
13. Solar energy is energy supplied by nature.
14. Solar energy is especially appropriate for smart energy networks with distributed power generation-DPG is indeed the next generation power network structure.
15. Solar PV-Panels has indeed a highly promising future both for economical viability and environmental sustainability.
16. Photovoltaic Panels, through photoelectric phenomenon, produce electricity in a direct electricity generation way.
17. PV-Panels are totally silent, producing no noise at all; consequently, they are a perfect solution for all the areas.
18. Because Solar Energy coincides with energy needs for cooling PV panels can provide an effective solution to energy demand peaks – especially in hot summer months where energy demand is high.
19. The total reclaimed area of the Vastan Lignite Mine at the end of the mining activities shall be about 847 Ha. As this is the progressive mine. GIPCL intends to utilize the maximum possible reclaimed land for installation of Solar PV Plant in phases. Hence it is also proposed that as the concurrent area of the reclamation progress, proponent may utilize the progressive reclaimed land of the mine for setting up Solar Power Project for generation of green power thereby limiting the pollution which otherwise will be created by Thermal Power plants, which will not only reduce CO2 emission but will also help in overall development of the region and provide employment opportunities to the local youth. Hence, total 807 Ha (Reclaimed area) + 40 Ha (external OB dump area) = 847.00 Ha progressive reclaimed land will be utilize for setting up Solar Power Project.

Request: Considering all the above advantages of power generation through Solar Energy, amendment in the Environment Clearance for change in Land Use indicating installation of 75 MW Solar PV Plant over 140 Ha reclaimed mine area in Phase I and over 707 Ha reclaimed area in subsequent phases.

VILLAGE - SURALI
DISTRICT - SURAT

BLOCK No	AREA		BLOCK No	Area	
	H.A	R.A. SQM		H.A.	R.A. SQM
		71 35	45	00	21 40
34	01	04 76	47	00	33 30
35	00	69 36	48	01	16 57 82
36	18	23 78	49	01	16 58
37	00	23 78	50	00	82 05
38	00	30 78	77	04	31 47
39	01	23 78	81	05	04 20
40	00	07 88	82	01	37 94
41	04	80 75	83	03	22 26
42	01	81 94	84	02	55 67
43	01	67 45	85	01	30 81
44	03	83 02	86	02	42 59
51	02	96 21	87	00	35 67
52	01	95 54	88	02	22 37
53	02	48 45	88	02	52 32
54	02	35	101	00	55 56
55	03	69 83	102	03	04 76
56	04	93 50	103	00	71 24
57	01	80 75	105	01	23 25
58	02	39 02	106 P.	00	42 12
59	02	55 34	107 P.	00	64 28
60	05	93 50	108 P.	00	30 87
61	04	26 80	109	01	12 86
62	05	85 29	110	02	48 21
63	03	42 70	111	05	51 02
64	01	75 77	113	01	39 99
78	03	12 97	115	04	
79	01	30 70			
80	02				

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COLLECTOR, SURAT.

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Manager, Gujarat Industries Power Co. Ltd.

GUJARAT INDUSTRIES POWER CO. LTD.
MANAGER

BLOCK NO	AREA			Block No	H.A	R.A	Sam.
	H.A.	R.A.	SQA				
116	02	35	45	107 P	00	55	00
117	02	92	53	108 P	00	14	00
32 P	00	74	40	130 P	01	31	00
12	01	83	13	131 P	02	30	70
18	02	25	94	132 P	01	60	32
19	06	31	44	133	00	30	92
20	01	39	13	134	02	75	89
21	03	03	24	135	02	16	43
22	02	19 23	99 56	136 P	00	04	00
23	02	19	99	142 B	04	29	29
24	06	57	52	114	00	47	57
25	02	49	72	89	2	72	32
26	01	45	08	91	00	71	35
27	02	35	45	92	1	90	27
28	00	93	94	93	0	95	13
29	04	85	18				
PART E							
90	00	04	76				
97	01	07	02				
98	00	39	25				
99	00	15	46				
100	02	36	64				
104	00	89	19				
106 P	00	68	81				

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 COLLECTOR, SURAT.

DIST - SURAT, TALUKA: MANGROL, VILLAGE: NANI - NAROLI

DETAILS OF MINING LEASE BLOCKS

1 BLOCK NO:	2 AREA			1 BLOCK NO	2 AREA.		
	HA.	RA.	SRM		HA.	RA.	SRM
PART: A.				PART: B			
503	00	92	75	486	04	50	70
504	02	21	19	487	02	66	37
508	02	94	91	488	01	54	59
509	02	66	37	489	00	83	24
510	02	67	56	490	01	68	86
511	01	29	61	491	01	55	78
512	04	20	97	492	03	22	26
513	02	83	02	493	02	73	51
514	02	10	47	497	01	59	35
515	01	37	95	498	01	23	67
516	05	64	84	499	01	40	32
518	01	30	81	500	01	87	89
519	01	29	62	501	00	98	71
520	02	33	08	502	00	95	13
521	03	00	86	505	00	65	40
537	01	15	35	506	01	43	89
538	01	60	54	507	02	58	05
539	01	11	78				

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Geologist, Surat.

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PART C

1	2	1	2
305	03 29 39	288	03 47 18
306	00 90 38	289	02 91 35
307	02 65 18	300	07 31 33
308	02 16 43	301	01 45 08
309	01 12 97	302	04 19 77
310	00 90 38	303	04 59 02
311	01 67 67	304	03 54 37
312	01 96 21	PART-E	
313	03 67 45	267	03 31 78
314	02 48 53	268	02 85 40
315	01 56 97	269	03 00 86
318	01 20 11	279	00 89 19
319	01 62 91	280	01 04 65
320	01 84 32	281	02 12 86
321	00 89 19	282	04 12 64
322	01 48 64	PART : F	
494	04 13 83	256	01 52 21
495	01 78 38	264	03 86 48
496	00 54 70	265	01 83 13
		266	01 73 62
		535	02 15 25
		536	01 62 94

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 જમીન રેકર્ડ'અ. સુરત

Geologist, Surat

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 COLLECTOR, SURAT.

VILLAGE - Shah.

TALUKA - MANUROL.

PART A.				PART B.			
Block No.	H.A.	R.A.	Som.	Block No.	H.A.	R.A.	Som.
18	05	73	18	37	02	60	43
19	00	59	46	38	10	35	76
20	09	31	12	39	00	34	49
34	04	89	93	40	00	34	48
50	03	88	86	41	00	67	78
51	07	87	23	42	04	63	77
53	02	02	16	43	04	50	69
54	01	21	29	44	03	79	34
26	05	06	57	47	03	47	23
27	03	21	07	250	05	94	58
28	03	23	45	251	02	91	13
29	06	43	34	252	03	50	80
33	03	34	15	253	02	71	03
55	03	67	45	254	02	97	29
52	02	49	72	255	03	85	28
57	02	49	72	256	02	85	41
58	02	49	72	48	02	02	16
59	04	89	47	46	04	25	72
60	01	30	81	49	04	23	34
61	04	37	61	52	02	02	16
62	00	77	30				
63	10	09	59				
45	04	22	15				
	93	75	35				

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Geologist, Surat

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જિલ્લા ઇન્સ્પેક્ટર
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GUJARAT INDUSTRIES POWER CO. LTD.

PART C				PART D			
Block No.	H.A.	R.A.	Scm.	Block No.	H.A.	R.A.	Scm.
21	01	68	86	4	01	59	34
24	02	48	54	5	02	62	81
25	02	37	83	6 Paiki	1	60	00
30	04	86	37	14 Paiki	1	60	00
31	03	07	99	16 Paiki	0	99	00
32	03	65	07	17	00	85	62
35	02	58	05	22	00	21	40
36	04	85	23	23	02	36	64
249	26	76	28	248 Paiki	04	80	92
257	01	10	59	271	02	28	32
258	01	10	59	272	01	78	37
259	03	30	59	273(P)	01	23	00
260	05	24	36	277	03	75	77
261	02	05	72	278	02	97	23
262	02	05	73	279	09	26	36
263	04	66	15	280	04	59	02
264	00	80	86	281	01	98	59
265	00	80	86	282	01	98	59
266	00	80	86	283	08	18	15
267	00	54	71	284	04	19	77
268	04	75	66	285	04	75	66
269	01	92	64	288(P)	02	76	00
270	01	11	78	289	02	58	92
				290	02	35	45
				291	02	16	43
				297	01	76	00

76 65 32

75 69 42

Kunal
Geologist, Surat

[Signature]
વજીર હાસલેશ
જી. સુ. સં. સુ. સુ.

[Signature]
COLLECTOR, SURAT.

DISTRICT - SURAT - TALUKA - MANGROL VILLAGE - VADOLI

DETAILS OF MINING LEASE BLOCKS

BLOCK No.	AREA			BLOCK NO	AREA			BLOCK NO
	H.A.	R.A.	SQM.		H.A.	R.A.	SQM.	
94	03	11	56	00	95	13	134	
95	03	11	56	02	36	65	135	
129	06	96	85	0	92	75	136	
130	00	96	32	0	92	13	137	
131	00	92	75	1	77	19	138	
132	00	98	70	0	84	43	139	
133	02	78	26	0	80	00.		
+ Govt land →				8	80	00.		

VILLAGE → JHAKARDA

				01	07	02	21
11	06	05	28	03	44	86	26
	02	18	81	03	44	86	27
12	02	08	10	01	97	40	28
13	02	03	35	01	64	10	29
14	02	19	99	03	36	53	30
15	01	72	43	02	16	43	31
16	01	72	43	02	63	99	41
17	03	43	66	02	90	16	42
18	01	07	02				
20							

T. N. Patel
Geologist, Surat

[Signature]
निवेष्टा ध-सुपेक्टर
मशीन रेकॉर्ड. सुरत.

[Signature]

V. S. D.
COLLECTOR, SURAT.

DIST, SURAT, TALUKA: MANDVI; VILLAGE: NOGAMA.
DETAILS OF MINING LEASE BLOCKS.

BLOCK NO 1	AREA			BLOCK NO. 1	HA	AREA.		SRM
	HA	RA	SRM.			RA		
PART: A.								
71/A	00	20	23	100	02	91	35	
71/B	03	17	86	101	05	82	69	
72	03	15	13	102	01	84	32	
73	02	78	26	103	03	69	83	
74	03	80	53	104	04	48	31	
75	03	62	83	105	05	52	96	
70	01	90	27	106	00	70	16	
91	00	95	13					
92	00	95	13					
93	06	31	44					
94	03	32	96					
95	01	39	13					
96	01	47	46					
97	00	73	73					
98	01	21	29					
99	00	57	08					

T. Patel
Geologist, Surat

[Signature]
Collector, Surat


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COLLECTOR, SURAT.

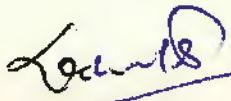
VILLAGE → NOGAMA.
MINING LEASE DETAILS.

PART - B

BLOCK NO.	AREA HA.	RA.	SAM.
59	01	68	86
60	01	72	43
70/A	01	50	48
70/B	00	06	07
76	03	24	39
77	01	90	27
78	01	90	26
86	09	22	79
88	02	56	86
107	03	80	53


જિલ્લા ઇન્સ્પેક્ટર
મી. + રેકર્ડ્સ. સુરત.

~~જિલ્લા ઇન્સ્પેક્ટર
મી. + રેકર્ડ્સ. સુરત.~~


Geologist, Surat.



COLLECTOR, SURAT.


GUJARAT INDUSTRIES POWER CO. LTD.

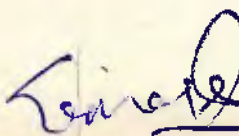
VILLAGE → CHARETHA
TALUKA → MANGROL

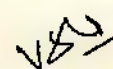
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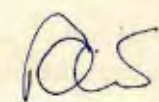
BLOCK NO.	AREA		BLOCK NO.	AREA		SQM.	
	H.P.	R.A.		H.P.	R.A.		
96	01	59	35	72	06	98	04
97	02	83	02	73	07	62	25
98	06	98	04	74	08	82	82
99	05	58	91	75	08	22	90
107	00	34	49	76	01	61	73
108	01	39	13	77	06	48	09
109	00	99	89	78	07	02	80
110	01	49	83	2579	05	49	39
111	03	00	86	80	05	38	69
112	02	37	83	81	04	92	71
113	02	64	00	82	05	45	83
114	04	37	61	84	04	15	02
70 P	01	90	00	85	03	66	26
71 P	03	27	89	86	02	37	83
100	03	32	96	87	06	50	48
106	01	74	81	88	06	38	59
				89	02	09	30
				90	01	64	10
				91	07	67	00
				92	04	13	83
				93	03	69	83
				94	07	12	31
				95	02	83	02


જિલ્લા ઇન્સ્પેક્ટર
મહાન રેકૉર્ડ, સુરત.


જિલ્લા ઇન્સ્પેક્ટર
મહાન રેકૉર્ડ, સુરત.


Geologist, Surat.


COLLECTOR, SURAT.


GUJARAT INDUSTRIES POWER CO. LTD.

VILLAGE - TADKESHVAR

TALUKA - MANDAVI

PART - A

PART - B

BLOCK NO

AREA

BLOCK NO

AREA

	H.A.	R.A.	SQM		H.A.	R.A.	SQM
227	03	54	10	205	08	92	34
230	00	80	93	207	00	20	23
231	00	98	14	208	01	98	49
232	00	80	74	209	03	09	59
233	00	80	94	210	00	41	48
234	00	80	93	211	00	40	47
235	00	80	94	212	00	41	48
236	03	46	01	213	02	67	09
237	01	54	79	214	03	48	03
238	03	95	59	215	02	19	54
239	00	72	84	216	02	02	36
240	00	45	53	217	02	89	35
242	01	54	79	218	02	36	74
243	04	16	83	223	04	05	70
258	02	01	33	224	01	27	47
259	07	79	03	225	01	27	48
260	02	34	72	226	01	27	48
261	04	58	31	227	03	25	77
262	01	84	13	228	05	08	90
263	01	44	68	280	01	61	88
265	03	14	65	28	01	29	50
Grand 241	01	86	16				

[Signature]
Geologist, Surat.

[Signature]
સર્વેક્ષક
જિલ્લા સર્વેક્ષક, સુરત.
[Signature]

[Signature]
COLLECTOR, SURAT.

1	2		
PART-C			
154	02	08	41
200	01	05	23
206	03	29	82
219	01	20	29
220	01	22	42
221	01	10	28
222	01	65	92
244	06	42	44
264	01	71	79
266	00	89	03
267	00	45	53
	21	11	36

1	2.		
PART-C			
268	00	36	42
274	00	98	14
276	05	41	27
277	01	01	17
278	01	00	16
279	02	00	32
282	01	35	57
286	02	25	60
287	00	86	00
288	01	33	55
	17	45	21

[Signature]
 જિલ્લા ઇન્સ્પેક્ટર
 ભૂમિ રેકૉર્ડ્ઝ, સુરત.

[Signature]
 Geologist, Surat.

[Signature]
 COLLECTOR, SURAT.

[Signature]
 GUJARAT INDUSTRIES POWER CO. LTD.

Vaslati

153 02 37 83

142 02 99 67

PART-D.

101 03 09 18

105 04 12 64

109 05 59 96

111 03 58 56

120 12 93 56

131 05 06 59

132 07 27 77

110 04 41 13

PART-E

51 05 39 88

52 05 24 42

53 02 71 93

54 07 12 22

55 01 55 04

56 01 53 86

57 03 09 46

58 00 99 98

59 02 14 99

60 02 28 94

61 02 34 64

62 02 33 21

63 01 34 80

64 02 52 10

PART-E

96 02 24 75

97 01 83 13

100 00 99 80

PART-F

32 01 84 21

33 05 86 26

34 02 60 43

35 04 29 39

38 03 04 46

39 01 24 37

40 01 24 26

41 09 35 17

42 02 34 17

43 01 11 12

44 02 43 78

45 01 02 27

46 01 09 27

47 06 69 30

48 02 41 40

49 00 76 10

50 00 114 110

62 02 20 34

63 05 59 38

68 04 16 21

69 03 13 00

GOVT 64 2 97 69

[Handwritten signature]

Geologist, Surat.

[Handwritten signature]
Geologist, Surat.

COLLECTOR, SURAT.

GUJARAT INDUSTRIES POWER CO. LTD

No.48024/1/94-CML
Government of India
Ministry of Coal

New Delhi, the 13th May, 1996.

The Dy. Secretary to the Govt.,
Industries & Mines Deptt.,
Block No.5, New Sachivalaya Complex,
G A N D H I N A G A R - 382010.

Sub :: Approval of Central Govt. to the grant of Mining lease for lignite in Mangrol Taluka of Surat Distt. in favour of Gujarat Industries Power Ltd. - reg.

Sir,

I am directed to refer to your letter No.MCR-1092-(G.8)-3626-CHH dated 28.10.95 on the above subject and to convey the approval of Govt. of India under Section 5(1) of the Mines & Minerals (Regulation & Development) Act, 1957 to the grant of mining lease for lignite over an area of 1536 hectares in Mangrol Taluka of Surat Distt. (Gujarat).

2. Approval of the Central Govt. to the relaxation of the provisions of Section 6(1) of the MMRD Act, is also accorded in order to enable the State Govt. of Gujarat to grant the mining lease over the area intimated in excess of the limit of 10 sq. kms.

3. The above approval is subject to the following :-

- i) the undertakings given by the applicant party in the undertaking-cum-indemnity bond are fully complied with ; and
- ii) the mining of lignite shall be undertaken by the applicant-party themselves and the lignite mined out shall be for exclusive generation of power.

4. A copy of the lease deed executed may be forwarded at the earliest for information and record at this end. Also a report on the status of exploitation of lignite in the leased out area for power generation may be sent to this Ministry on an annual basis.

Yours faithfully,

(B. L. DASS)

Under Secretary to the Govt. of India.

*Sample of Lignite
B.O. No. 14/5/96*

17/6

1/5/96

8/6

o/c

तार :

Telegram : PARYAVARAN,
NEW DELHI

दूरभाष :

Telephone : 4363973-

टेलिक्स (द्विभाषीय) :

Telex : (bi-lingual) : W-66185 DOE IN

FAX : 4360678

भारत सरकार

पर्यावरण एवं वन मंत्रालय

GOVERNMENT OF INDIA

MINISTRY OF ENVIRONMENT & FORESTS

पर्यावरण भवन सी. जी. ओ. कॉम्प्लेक्स

PARYAVARAN BHAVAN, C.G.O. COMPLEX

लोदी रोड, नई दिल्ली-110003

LODHI ROAD, NEW DELHI-110003

Dated the 19th June, 1996

F.No.J-11015/40/95-IA.II(M)

OFFICE MEMORANDUM

Sub: Vastan Lignite Mine of M/s Gujarat Industries Power Co. Ltd.(GIPCL).

This has reference to M/s Gujarat Industries Power Company Ltd.'s letter No.SIPP/MOEF/75/6065 dated 1.12.95 regarding environmental clearance of the above project. The Environmental Management Plan and other documents have been examined by the Ministry and it has been decided to accord environmental clearance to the above project subject to the effective implementation of the following environmental safeguards :

1. The environmental clearance would be applicable to 1536 ha. lease area.
2. No change in the calendar plan including excavation, quantum of Lignite and wastes/OB dumps should be made.
3. The top soil and OB dumps should be stacked in earmarked dump sites. Garland drains along the lease boundary alongwith the settling tanks should be made.
4. The levels of SPM should not exceed 500 ug/m^3 at any station within the leasehold. Emission of SO_2 , NO_x and CO should be maintained below the levels prescribed by the competent authority. Control measures suggested in the EMP in this regard should be strictly implemented.
5. The quality of effluent finally discharged should conform to the standards prescribed under GSR 422(E) dated 19.5.1993 and 31.12.1993.
6. Regular monitoring of air, water and noise should be made in and around the core-zone. Recorded data should be furnished to this Ministry (Regional Office) and the State Pollution Control Board quarterly. Noise levels should not exceed the limit of 85 DB. Ear plugs/ear muff may be provided to the workers engaged in the noisy atmosphere.
7. The anti-pollution measures with regard to environmental quality prescribed in the EMP should be implemented on schedule in a time bound programme.

- A 100 m wide green belt around the lease area should be developed. The density of the trees should be atleast 1600 saplings/ha. Mixed species of saplings should be selected for enhancing biodiversity. Also the reclamation afforestation programme in the lease hold area should be implemented phase-wise as envisaged.
9. The socio-economic/community development measures needs to be augmented. These measures need to be taken for Vastan Village to be adopted. A time bound action plan should be submitted within 6 months.
 10. Three years-stage remote sensing imageries to monitor the changes in the landuse pattern and related impacts due to mining in the region should be submitted.
 11. A hydrological study to assess the water balance status of the region should be submitted to the Ministry within one year.
 12. Environmental Management Cell has to be established to carry out functions relating to environmental management action plans. The Head of the Cell should directly report to the Chief-Executive.
 13. Adequate fund provision (capital and recurring expenditure) should be provided for implementation of all safeguards including socio-economic development programme. The funds earmarked for environmental measures will not be diverted for any other purpose.
 14. The Ministry reserves the right to stipulate any other conditions, as may be required based on feedback etc. in the interest of environmental protection.
 5. The project would be monitored by the Regional Office of the Ministry (Bhopal). The project Authorities should extend full cooperation to the officers of the Regional Office by furnishing the requisite data/information/monitoring report. A set of project documents including EIA/EMP report should be sent to the Chief Conservator of Forests, Regional Office, Bhopal within one month of receipt of the clearance letter.
 6. Environmental Compliance Status vis-a-vis project implementation report should be submitted for the scrutiny of this Ministry once in 6 months regularly.
 7. The implementation of these conditions and safeguards will be enforced interalia under the water (Prevention and Control of Pollution) Act, 1991 and the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991.

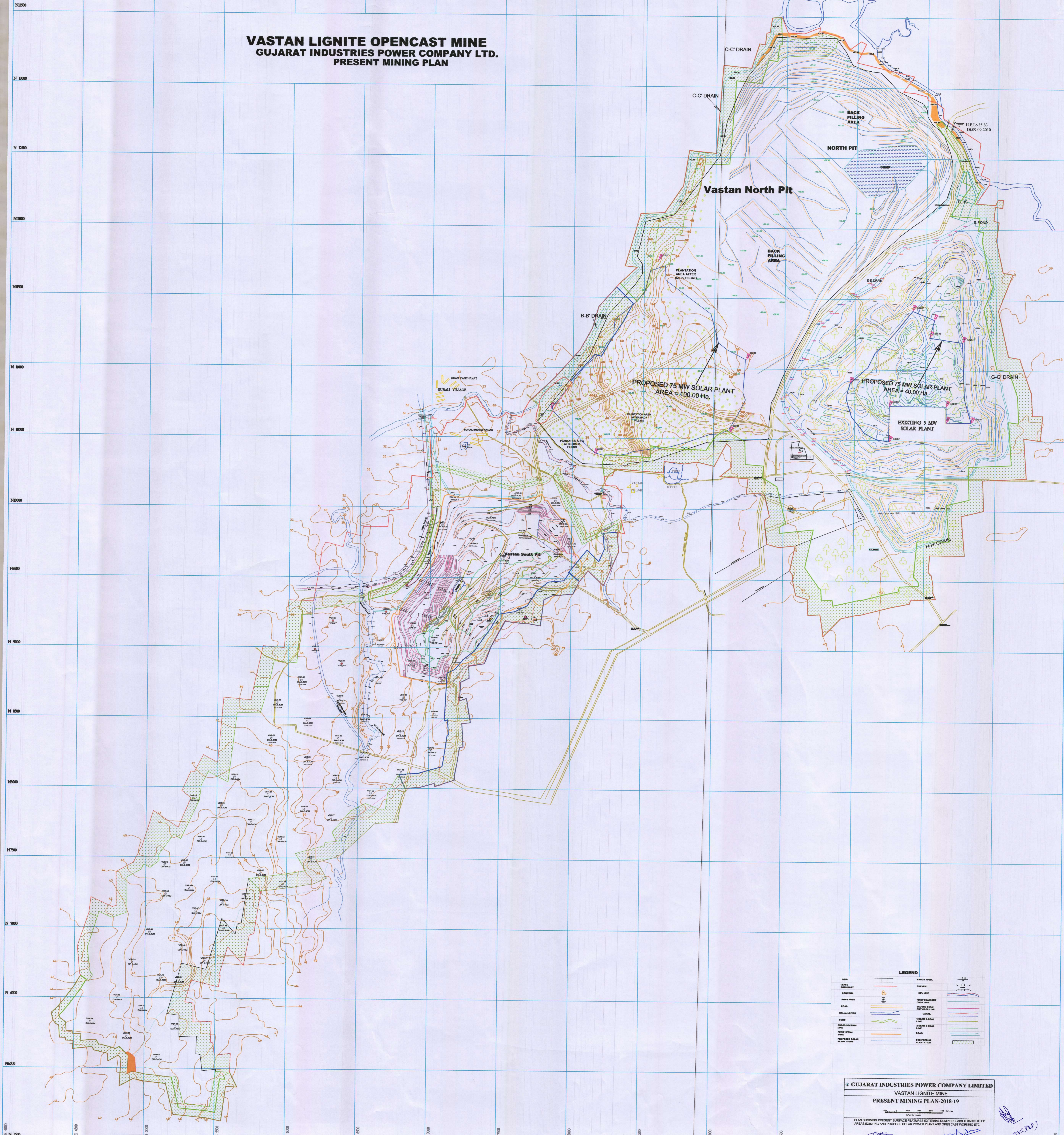
Failure to comply with any of the conditions mentioned above would result in withdrawal of this environmental clearance.

P. Ahuja

(DR. P.AHUJA RAI)
Joint Director

Shri D.V. Iyer
General Manager (SIPP)
Gujarat Industries Power Co. Ltd.

VASTAN LIGNITE OPENCAST MINE
GUJARAT INDUSTRIES POWER COMPANY LTD.
PRESENT MINING PLAN



LEGEND

LINE	BOUNDARY	ROAD	RAILWAY	PROPOSED SOLAR PLANT TO BE	PROPOSED PLANTATION
CONTOUR	WATER MARK	WELL	TEMPLE	EXISTING 5 MW SOLAR PLANT	
ROAD	WATER MARK	WELL	TEMPLE		
RAILWAY	WATER MARK	WELL	TEMPLE		
PROPOSED SOLAR PLANT TO BE	WATER MARK	WELL	TEMPLE		
PROPOSED PLANTATION	WATER MARK	WELL	TEMPLE		

© GUJARAT INDUSTRIES POWER COMPANY LIMITED
VASTAN LIGNITE MINE
PRESENT MINING PLAN-2018-19
SCALE: 1:5000
PLAN SHOWING PRESENT SURFACE FEATURES EXISTING EXTERNAL DRAINAGE AREAS BACK FILLED AREAS EXISTING AND PROPOSED SOLAR POWER PLANT AND OPEN CAST WORKING ETC.

SURVEYOR: [Signature]
MANAGER: [Signature]

DEMURE

