EXECUTIVE SUMMARY FOR REIA/EMP OF 4 X 300 MW THERMAL POWER PLANT AT VILLAGES BOJIA, CHITAPALI, NAVAPARA AND KATAIPALI, TEHSIL DHARAMJAIGARH, DISTRICT RAIGARH, CHHATTISGARH

1.0 INTRODUCTION

M/s Godawari Energy Ltd. is planning to set up a 4 x 300 MW thermal power plant at Villages Bojia, Chitapali, Navapara and Kataipali, Tehsil Dharamjaigarh, Distt. Raigarh, of Chhattisgarh state. The primary fuel will be coal with total consumption of approximately 7.24 MTPA. The thermal power plant will be setup on around 955 acres land. Out of which 310 acres will be used for ash disposal. The estimated investment in the project will be approximately Rs. 6000 Crores.

1.1 General background

Godawari Power and Ispat Ltd. (GEL is an SPV of GPIL) is promoted by Mr. B.L Agarwal and brothers of Hira Group of Industries, Raipur. Hira Group is a well established business group with headquarters based at Raipur in Chhattisgarh. Hira group is a family owned and operated business for three generations. The group is actively involved in manufacturing of Mild steel Wires, Sponge Iron, Ferro Alloys, Wire rods, Mild Steel Billets and Power Generation of total 130 MW. The group has recently made its foray into Captive Coal, Iron ore & Manganese ore Mining.

1.2 Location and communication

The proposed plant will be located in the Villages Bojia, Chitapali, Navapara and Kataipali, Tehsil Dharamjaigarh, District. Raigarh of Chhattisgarh state. The location of the project can be seen in Survey of India Topo sheet No. 64 N/4. The plant and the colony area falls between Latitude 22° 5' 33.45" to 22° 7' 21.02" and Longitude 83° 8' 36.45"to 83° 11' 38.31". The location of the plant & proposed colony can be seen in Fig 1.

Nearest State Highway is SH-26 at a distance of 12.3 km South and nearest National Highway is NH-200 at a distance of 36.0 km South East. The site is located along northern side of Bilaspur to Raigarh railway line at a distance of 11.8 km. The nearest airport is at Raipur at a distance of approximately 300 km from the site.

2.0 PROJECT DESCRIPTION

2.1 Project site

The highest elevation at the power plant site is 267 m above mean sea level (AMSL). The land is flat. The land has to be acquired from the villages and it is predominantly un-irrigated agricultural and wasteland.

FIG. 1 LOCATION MAP

2.2 Process description

In a coal based thermal power station, the heat of combustion is first converted into mechanical and then to electrical energy. The main units of a thermal power plant are steam generator, steam turbine and electrical generator which are discussed in brief in subsequent paragraphs below.

De- mineralization plant: DM Plant buildings shall be of RCC framed structure. The clear height of DM plant portion shall be 7 m and that of regeneration building shall be 5 m. Acid / alkali (chemical) storage area shall be an open paved area with RCC dyke perimeter wall, of 500 mm height. Two flexible pad type foundations using well – graded sand shall be provided for DM water storage tank, with bitumastic anti-corrosive layer on top.

Steam Generators and Accessories: The steam generators will be designed for 100% Indian coal firing rated to deliver 1025 TPH of superheated steam continuously under all conditions. Boiler design shall also be suitable for variable pressure operation.

Furnace: The furnace will be radiant, dry bottom type with tangential firing and enclosed by water- cooled and all welded membrane wall. The super heater and re- heater tubes will be a combination of radiation and convection type heat exchange surfaces.

Air and flue gas system: A balanced draft system will be provided. There will be two axial flow FD fans and two radial flow ID fans and two tri-sector regenerative type air pre- heaters with facility of steam coil heating on the secondary air side to guard against low cold end temperature.

Fuel oil burning system: Start – up, warm up and low load (up to 30%) carrying shall be done by LDO/ Heavy Furnace oil/ HPS/ LSHS. Boiler will be so designed so that oil firing for flame stabilization will not be required beyond 30% MCR. Necessary pumps, filters and heaters shall also be provided.

Coal burning system: The coal burning system will comprise of coal mills of vertical spindle type which include bowl mills (XRP type), roller mills (MPS type) and balls & race mills “(E- type).

Soot blowing system: Fully automatic, sequentially controlled, micro processor based steam soot blowing system, complete with provision for individual operation of any soot blower pair, operation and facility to by pass any soot blower, will be provided.

Chemical dosing system: High pressure chemical Dosing system complete with preparation and metering tank with 2 X 100% dosing pumps, connected piping, valves and fittings will be provided to control the quality of water at the steam generator.

Auxiliary steam system: A high temperature station auxiliary steam header taking its tap off from the auxiliary PRD station before the de- super heater will also be provided to take care of the mill fire fighting and air heater soot blowing.

Turbine & its auxiliaries: The steam Turbine along with its integral systems and auxiliaries like lube oil system, condenser air evacuation system, HP &LP Bypass system, complete regenerative feed water pumps along with their supervisory instruments, turbine run-up system, instrumentation and control devices, turbine supervisory instruments, turbine protection and interlock system, automatic turbine testing system etc. will be provided.

Steam turbine: The steam turbine shall be tandem compound, single reheat, and regenerative, condensing, multi- cylinder design with HP, IP and LP casings, directly coupled with the generator suitable for indoor installation.

Condenser: The condensing plant will convert the exhaust steam to condensate in the state of the art air cooled condenser which is being used for the first time in india at this size of power Plant and then deliver the condensate to feed water cycle.

Air extraction system: The unit shall comprise 2x100% vacuum pumps along with all accessories and instrumentation for condenser air evacuation. The vacuum pumps and accessories shall be used to create vacuum by removing air and non-condensable gases from steam condenser during plant operation.

Lube oil system: The system shall cater to the lubrication requirements of the bearings, requirements of turbine turning gear during start-up and shutdown, jacking oil requirement during turning gear operation and control oil requirement. In addition, it shall also supply oil to the generator seals under emergency condition.

Gland steam sealing system: A fully automatic gland sealing steam supply system shall be provided for TG set. HP and IP turbine shaft glands will be sealed to prevent escape of steam into the atmosphere and the LP turbine glands will be sealed for preventing leakage of atmospheric air into the turbine.

Governing / regulation system: The turbine will have throttle/ nozzle controlled type governing. It shall be capable of controlling, with stability, the speed of the turbine at all outputs between zero and the specified maximum power output when the unit is operating isolated or the energy input to the steam turbine when the unit is operating in parallel with the other units.

HP & LP heaters: Regenerative feed heating cycle shall consist of LP heaters, one drain cooler, deaerator and HP heaters. The number of LP & HP heaters shall be based on the optimization of feed heating cycle.

Boiler feed pumps: It is proposed to have 3x50% motor driven boiler feed pumps for each unit (300 MW unit) with the booster pumps mounted on the common shaft. The feed flow shall be controlled by hydraulic coupling, which shall be utilized to achieve speed control of motor driven pumps.

Condensate extraction pumps: The unit shall have 2 x 100% capacity motor driven condensate extraction pumps (one working and one standby). The pump shall have adequate margins on capacity and head to cater for most adverse conditions of operations.

LP chemical dosing system: The purpose of LP dosing system is to maintain the pH value of condensate and feed water and to effectively deal with residual dissolved oxygen in condensate and feed water.

Coal handling and Transportation: The coal will be transported to the proposed site by road/ rail from allotted coal Block/ Linkage. Two number stacker cum reclaimer for stacking and reclaiming the crushed coal during non requirement in bunker is proposed.

Ash Handling System/Solid Waste Management: The bottom ash shall be extracted in dry form and disposed off in either dry or wet conditioned form depending upon the requirement. The fly ash shall be extracted in dry form from the electrostatic precipitator hoppers. Ash disposal into the dyke shall be in the form of High Concentration Slurry Disposal system where in there will be no leaching of ash into the ground and also the accidents related to pond damage and ash spillage shall be avoided as there shall be no flowability of ash on account of negligible usage of water.

Chimney / **Stack:**The detail of the stack is given Table 1.

TABLE 1
DETAILS OF STACK

Stack	
Number of stacks (Chimneys)	2
Height of the stack	275 m
Number of flues in each stack	2
Internal diameter of each flue	5.2 m
Flue gas exit volume	355 Nm^3/s
Flue gas temperature	135°C
Flue gas exit velocity	25m/s
Emissions from one flue (to be doubled for stack)	
SO_2 emission from each flue	1600 mg/Nm^3
NO_x emission from each flue	750 mg/Nm^3
Particulate matter emission from each flue	50 mg/Nm^3
CO	120 ppm*

2.3 Raw material quality

The coal available in the identified block has weighted average GCV of 3300 kcal/ kg, ash content between 33-45% and moisture content 11-15%. Light Diesel Oil (LDO) will be used only for cold start and Heavy Fuel Oil (HFO) will be used as support fuel at low loads and flame stabilization.

2.4 Site Services

It has been estimated that 875 persons will be required during operation stage. The water consumption of the plant will be 12 million cubic meters annually, which will be met with from the River Mand, flowing at a distance of about 3.5 km west of site. The reason for about one-third requirement of water as compared to conventional power plant being the consideration of Air Cooled Condenser in the design which is being used for the first time in India at this size of power plant. Air-conditioning will be provided to maintain conditions suitable for satisfactory functioning of sophisticated equipment, accessories and controls in control rooms, and also for personnel comfort. The power will be evacuated from 765/400 kV PGCIL pooling substation at Dharamjaigarh. There will be provision of canteen, rest shelter, recreation room with toilets and drinking water facilities. These facilities will be available for the company's employees, temporary workers, and contract workers as well as to the truck drivers. Sufficient parking space will be provided for the trucks.

3.0 PRESENT ENVIRONMETNAL SCENARIO

The 10 km radius around the proposed project including the project area forms the study area i.e. the anticipated area of impact.

3.1 Topography & drainage

The study area in general is uneven and ground is undulating. The elevation within the study area ranges between 237- 267 m RL. The study area forms a part of Mand river basin which cuts across the study area and is a perennial river flowing in SSE direction. The river Kurket is the main left bank tributary flowing in westerly direction over the southern portion of study area. The entire study area has intricate net of dendritic drainage.

3.2 Climate and micro-meteorology

The climate of the study area is of subtropical type, and is characterised by an oppressive hot summer, a mild winter and well distributed rainfall during the south western monsoon season. Data recorded from period 1996 to 2005 at IMD Station, Raigarh shows that temperature varied from 12.04 to 42.08℃, Relative humidity varied from 42 to82% in the morning and 29 to 82% in the evening. The average annual rainfall for the period 1996 to 2005 was 1216.4 mm. Predominant wind direction is from NE during winter season NW during summer and SW during monsoon seasons and general wind speed ranges form 6 to 11 km/hr throughout the year.

Micro-meteorological survey was undertaken from March to May 2009. Ambient air temperature was found to be between 24.20 to 49.10℃ with an average of 37.10℃, Relative humidity varied from 14.70 to 65.70% with an average of 31.71%, wind speed from calm to 10.10 km/hr with an average of 2.06 km/hr and wind direction is W (13.13%).

3.3 Ambient air quality

Ambient air quality study has been carried out at eight (Core zone, Deormal, Khedapali, Ero, Near Lotan RF, Garainbahar, Near village Nandgaon and Pusaldah) sampling stations, through Respirable Dust Samplers continuously for three months. The SPM was found to vary from 101µg/m^3 to 156 µg/m^3, RPM from 41 µg/m^3 to 60 µg/m^3, SO_2 from 5.0 µg/m^3 to 11.7 µg/m^3 and NOx from 7.0 µg/m^3 to 15.1 µg/m^3.

3.5 Water resources

Surface water: Within the core zone there is no perennial surface water source present. The nearest perennial source of surface water is Mand river flowing at a distance of 3.2 km west or Kurket river which flow westerly and lies 3 km south from core zone. These rivers are effluent in nature and receive substantial amount of groundwater as subsurface flow into the river.

Ground water: The ground water in the area occurs within the primary porosity of loose alluvial sediments and weathered rock fragments with in a depth of 15-20 m from the ground. The annual groundwater resource for the study area is 50.36 MCM and utilization has been worked out as 8.32 MCM.

3.6 Water quality

Water samples from ground and surface water of 8 locations (Surface water: Mand River near Village Chhal and Gurda, Katanganara nala near village Khedapali, Kurket nala near village Tendumuri. Ground water: Khedarpali, Near Lotan RF, Grainbahar and Navapara) were collected. The result shows that physical parameters like colour, odour, taste, turbidity and temperature. pH, hardness, chloride, total solids are within the desirable limits. The ground and surface water is, more or less, suitable for use as potable water.

3.7 Noise level and traffic density

Measurement of noise level was carried out at ten locations. The noise level was found to be between 46.30 dB [A] to 51.20 dB [A] during day time and 37.00 dB [A] to 39.10 dB [A] during night.

A traffic density survey was conducted round the clock on Dharamjaigarh to Kharsia road near village Khedapali (1.7 km SW) on 30-31 May, 2009. The total observed motorised vehicles were 1594 vehicles/ day while cycles were 151per day.

3.8 Land use and Soil quality

The power plant is proposed to be set up over approximately 955 acres of area. Land use pattern of the study area has been assessed on the basis of 2001 Census data. It is found that about 37.39% of the total area is occupied by unirrigated agricultural land while irrigated agricultural land occupies 2.99%. 35.59% is forest land area not available for cultivation is 7.54% and culturable waste land is16.49%.

The soil is medium acidic and exhibits normal conductivity. Soils in the area are lateritic in nature and reddish brown in colour. The soil is optimum in nitrogen, potassium and calcium and is deficient in organic carbon, phosphorus, magnesium and iron.

3.10 Ecology

In the buffer zone, the reserve/protected/ village forest cover is 16003.80 Ha. i.e. about 35.59 % of the total area. These forests are categorised under group 5 (Tropical Dry Deciduous Forest) as per the Indian forest classification of Champion and Seth. The main species existing in the forest are Sal, Bamboo Tendu, Mahua, Palas, Neem, etc.

The core zone has avifauna such as cattle egret, pigeon, house crow, quail, golden backed wood pecker, cheel and house sparrow. The reptiles found are garden lizard, house lizard, rat snake and blind snake. There is only one Schedule-I animal- Common Indian Monitor.

3.11 Socio economic conditions

There are 82 villages in study area. Total population is 62399 with 31151 males & 31248 females. 58.39 % of total population is literate. The composition of SC and ST in the study area is 8.59% and 53.30% respectively. 52.34% of the total populations are non-workers while main workers are 71.29% and marginal workers are 28.71%.

3.12 Industries in study area

A number of small and medium scale industrial units are located within the study area (10 km radius). Only one mine is operational within the study area.

3.13 Places of tourism / historical / archaeological importance

No specific of tourist importance falls within the study area. No places of historical importance are present in the study area either.

4.0 ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

4.1 Topography and Drainage

Impact:: The site is almost level with some low areas which will be utilized for reservoir. Thus, no cutting or filling is required. The changes in topography are due to the construction of building and stock yards which will obstruct the sheet flow of rain water across the plot. No seasonal or perennial drains pass through the project area.

Mitigation: The surface run-off and the storm water from the plant area will be directed to the rainwater harvesting structures proposed within the plant site. Hence, no rainwater shall flow out of the proposed plot. Therefore, there shall be no impact on the hydrology of the area outside the plant. This will also help in ground water recharging.

4.2 Climate and meteorology

Impact: During the construction phase the activities will be restricted to construction of roads, warehouses buildings, erection of structures, plants and machinery, construction of oil/fuel storage areas etc. Thus, no effect on climate and meteorology of area is expected. During operation phase there will be stack emissions and thermal pollution.

Mitigation: No effect on climate and meteorology of area is expected. The thermal pollution will be restricted to the plant site while the stack emissions will only contribute incremental values of pollutants.

4.3 Air quality

Impact: Sources of air pollution, during the construction phase will be vehicle exhausts, dust generation due to excavation work, shifting of construction materials (cement, sand and gravel), vehicle movement on unpaved roads and exhaust from non-mobile construction equipment like compressors. Primary impact will be high dust generation resulting into increased SPM levels in the surrounding areas and the secondary impacts of air emissions, dust as well as other emission will affect the health of the labour force working in close vicinity. During operation phase the air quality impacts of a source or group of sources is evaluated by use of mathematical models. The three most predominant wind directions observed during the monitoring period are towards SE, ESE and E directions for 11.86%, 11.59% and 11.45 % of time respectively.

Mitigation: During construction, as the site is generally level the dust created by excavation, levelling and transportation activities will be controllable by sprinkling of water, construction equipment and transport vehicle will be maintained properly and regularly to minimize source emissions and spillage along with construction of pucca road. Electrostatic precipitators (ESP) with an efficiency of 99.9% will be installed to control the particulate emission so as not to exceed 50 mg/Nm^3. For dispersal of SO_2, a

stack of 275 m height will be constructed as per applicable standards for plant of >500 MW capacity. Stack emission monitoring for SO_2, NOx and particulate matter will be carried out as per frequency mentioned in the consent. Water spraying system will be provided in coal yard to suppress dust at suitable location including transfer points, loading and unloading points. Opacity meter will be installed for continuous monitoring of particulate matter. Bag filters will be installed at silo for dry ash extraction

4.4 Land environment

Impact: The total land area requirement is 955 acres. Construction activities will contribute to the deterioration of environment but this will be for limited time. As all the activities related to the project will be restricted to core zone, no impact on buffer zone land use is anticipated.

Mitigation: To ensure that impact due to project activities is minimum, railway wagons will be used for transportation of coal from siding to the CHP area inside the plant premises. However during initial period of operations trucks may be utilized till the siding becomes fully operational which will of course depend on ROW constraints. A Green Belt has been envisaged all around the plant which will help in preventing fugitive dust from spreading beyond the plant boundary.

4.5 Water environment

Impact: During construction phase, rain water flowing through the construction area will carry loose soil, thereby increasing suspended solids of receiving water body. However, the impact will be temporary and reversible. In thermal power plants using coal as fuel, the source of ground water pollution usually are leachates reaching sub-soil by infiltration because ash is disposed in slurry form. However this situation will be brought down to minimum by utilizing state of art HCSD system. During the operation there will not be any direct contact between shallow water table and effluent/ slurries.

Mitigation: The total requirement of water is 12 million cum/annum which is only one-third of the water required by conventional power plants as Air cooled condenser has been envisaged for this project. The plant is designed on 100% recycle/ reuse of waste water to achieve the concept of zero discharge. Waste water from DM plant will be neutralised and reused in CHP dust suppression and in plant horticulture via CMB. Water from cooling tower blow down will be used for ash disposal. Thus there will be no impact on the surface water from the power plant. To prevent water pollution by oil/grease, leak proof containers will be used for storage and transportation of oil, water quality monitoring will be done regularly, workshop effluent will be passed through pit/grease trap and recirculated and analysis of treated waste water will be carried out as per CPCB regulation. Domestic waste water from the plant and the colony will be treated in the sewage treatment plant based on activated sludge process and utilized quantitatively for irrigation of green belt and plantation.

Rainwater falling on the rooftops of buildings will be harvested and used for recharging of ground water through recharge structures.

4.6 Noise and vibration

Impact: The noise level during construction will be due to construction machinery, which is of temporary nature, the unpleasant effects of which will be controlled by appropriate mitigation measures. The noise level at sources like the generator are anticipated to go as high as 95 dB(A).

Mitigation: The equipments shall be provided with acoustic shields or enclosures to limit the sound level inside the plant to acceptable level. The proposed green belt all around will also help to prevent noise generated within the plant from spreading beyond the plant boundary.

4.7 Ecology

Impact: No noticeable impact on land and soil is anticipated during the construction of the plant. Excavation and waste disposal will affect the land and soil within core zone only**.** Bright light and unusual noise during operation activity will shift the activity site of the birds and animals to little away from the location of plant site initially. With the progressive growth of greenery, biological terrestrial environment will improve in due course of time.

Mitigation: To reduce the impact of air pollution, it has been proposed to develop a Green belt in cover 33% of total land. A three tier greenbelt is proposed for establishment using different combinations of trees, shrubs, etc. 1000 saplings are recommended per hectare and entire plantation is proposed over a period of two years. Depending upon the local availability, soil and climatic condition, the selection of the suitable species for development of green belt will be made.

4.8 Solid waste

Impact: The power plant shall consume coal with an ash content of maximum 45%, which will be left after combustion. The quantity of ash generated from the plant is estimated as 3.26 million tonnes per annum. There will be domestic solid waste generated from the plant which will be of predominantly organic and biodegradable in nature and converted into manure using vermi-composting. It will be roughly 90 kg/day.

Mitigation: The bottom and coarse ash from each boiler will be collected in dry form along with fly ash from the ESP hopper and will be transported to fly ash silos. In the initial years of operations, efforts will be made to ensure maximum utilization of fly ash in dry form for commercial use such as brick making, manufacturing of pozzolona cement, manufacturing of aggregates etc. The company has earmarked approximately 310 acres of land for ash disposal including approximately 100 acres of green belt all around the dyke area.

4.9 Socio- economic conditions

Impact: Most of the work force required for construction and operation of the proposed project will be drawn from the surrounding areas. During the construction phase, no family is expected to migrate from the core zone. Therefore, no impact on demographic profile of the area is foreseen. The project is proposed to be commissioned in phases (Unit – I =36 months, Unit – II = 48 Months, Unit- III = 60 Months and Unit- IV = 66 Months from ordering of the boiler and turbine packages). During construction upto 500 workers may be involved.

Mitigation: The direct employment potential of the project is estimated as 875 persons, the share of local people in this is expected to be significant. The economic growth of the area in terms of employment generation, consumption behaviour and market-growth are expected outcome of the project. Indirect employment will be created by the plant for supply of daily domestic goods, Transportation & industrial requirements.

5.0 ANALYSIS OF ALTERNATIVES

The site has been selected because Coal mines for linkages are located within 50 km only from the site, sufficient water is available in Kurket & Mand Rivers that are flowing at a distance of about 2 km southwards & 3.5 kms westwards respectively, for power Evacuation system, a 400 KV Double Circuit Quadruple Strung (DCQS) Line would be required to be laid to connect to PGCIL pooling S/S, which is likely to come up in the vicinity of Dharamjaygarh at a distance of 32 kms from the identified site, protected & Reserved Forest area is nil, the site is already connected with well-maintained road, soil condition and terrain of the site is fairly good, construction Power will be easily available from CSEB's Chhal sub-station, which is only 5 km away, most of the land is un-irrigated land, non – grazing and almost barren with an abundance of termite in the soil, minimum environmental issues and land of about 955 acres is available as per our requirement.

The Rankine cycle with a pressure of 130 to 140 kg/cm^2 and at a temperature of 535 to 540°C with superior heat rate has been selected as the specific fuel consumption is thus dramatically reduced in high-pressure and high temperature reheat units. Air cooled condenser instead of water cooled condenser has been considered to reduce water requirement of the plant to one-third of conventional plants. High concentration slurry disposal system has been considered in place of conventional lean phase slurry disposal system thus again reducing water requirement, preventing ground water pollution and accidental spillage during rainy season due to breakage of dyke embankment.

6.0 ENVIRONMENTAL CONTROL AND MONITORING ORGANISATION

A full-fledged Environment Management Department (EMD) shall be set up headed by Chief Executive Officer. This team will be also responsible for all environment management activities including environmental monitoring, developing greenbelt, ensuring good housekeeping, ensuring statutory compliance as well as creating environmentally aware work forces for proposed Thermal Power Plant. The total capital investment on environmental improvement work is envisaged as Rs 38071 lakhs which is 6.3 % of the estimated cost of the project (Rs 604316.5 lakhs). The recurring expenditure estimated during the power generation is Rs. 7188 lakhs/year.

7.0 DISASTER MANAGEMENT PLAN

All types of industries face certain types of hazards which can disrupt normal activities abruptly and lead to disaster like fires, inundation, failure of machinery, explosion to name a few. Rejects and coal fines based power plant also pose fire, electrocution and explosion hazards. Disaster management plan is formulated with an aim of taking precautionary step to control the hazard propagation and avert disaster and also to take such action after the disaster, which limits the damage to the minimum.

Disaster may occur due to fire, explosion, oil spillage, acid spillage, electrocution and hazardous waste. Design, manufacture and construction of all plant and machineries building will be as per national and international codes as applicable in specific cases and laid down by statutory authorities. Provision of adequate access way for movement of equipment and personnel shall be kept.

8.0 PROJECT BENEFITS

Most of the work force required for construction and operation of the proposed project will be drawn from the surrounding areas. Due to thermal power project there will be development of communication facilities in the area. In the plant area accommodation has been planned for the skilled/ semi-skilled employees and the managerial/ supervisory personnel. The plant site area will be equipped with sufficient infrastructural facilities including drinking water, toilets, sanitation facilities, health centre etc. The project would be fulfilling a part of the large power deficit that exists in the country. This in turn will be a service to the nation and electricity dependent industries as well as domestic users. Further, the company has a well developed CSR plan which is enclosed with REIA report for the welfare of local communities and peripheral villages.