

# FORM – I

For

**2 x 520 MW COAL BASED THERMAL POWER PLANT**

At

**Palavasa Village, Pedagantyada Mandal,  
Visakhapatnam District, Andhra Pradesh**

**NOVEMBER – 2016**

<b>PROJECT PROPONENT</b>	<b>ENVIRONMENT CONSULTANT</b>
<b>HINDUJA NATIONAL POWER CORPORATION LIMITED</b> Visakhapatnam, Andhra Pradesh.	<b>B.S. ENVI-TECH PVT. LTD.,</b> Secunderabad, Telangana. NABET Accreditation: NABET/EIA/RA002

**Form - I**  
**(As Per New Notification of Mo.E.F dated 1-12-2009 vide SO 3067 (E))**

<b>BASIC INFORMATION</b>		
<b>S. No</b>	<b>Item</b>	<b>Details</b>
1	Name of the Project/s	<b>2x520 MW COAL BASED THERMAL POWER PLANT</b> by Hinduja National Power Corporation Limited (HNPCL)
2	S. No. in the schedule	1d
3	Proposed capacity/ area/ length/ tonnage to be handled/ command area/ lease area/ number of wells to be drilled	2x520 MW
4	New/expansion/modernization	Not Applicable. This application is to intimate MoEF&CC for usage of 100% Indigenous coal due to steep increase in imported coal prices. The imported coal was used for blending in the ratio of 70% indigenous coal and 30% imported coal. HNPCL is seeking permission to use 100% indigenous coal till there is a reduction of imported coal prices/washed coal is made available by Mahandi Coalfields Limited (MCL).
5	Existing capacity/ Area etc.	1040 MW (2x520 MW Coal Based Thermal Power Plant) UNIT I – March 2016 UNIT II – July 2016
6	Category of Project i.e 'A' or 'B'	Category 'A'
7	Does it attract the general condition? If yes please specify.	No
8	Does it attract the specific condition? If yes please specify.	No
9	Location	
	Plot/ Survey/ Khasra No	The survey numbers are 430, 492, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513/P, 519, 520, 521, 522, 523, 524, 525, 532, 533, 534, 535, 536, 537, 538 in Devada village and 293 and 294 in Appikonda village. Further the sea water intake outfall pipelines will pass

		through the survey numbers 516, 517, 518, 526, 527, 531 and 539 in Devada village
	Village	Palavalasa
	Tehsil	Pedagantyada
	District	Visakhapatnam
	State	Andhra Pradesh
10	Nearest railway station/ airport along with distance in Kms.	Duvvada Railway Station – 15.00 km – N
11	Nearest town, city, district headquarters along with distance in kms.	Visakhapatnam District – 14.82 km – NE
12	Village panchayaths, Zilla parishad, Municipal Corporation, Local body (Complete postal addresses with telephone nos. to be given)	Palavalasa Village, Pedagantyada Mandal
13	Name of the applicant	<b>Hinduja National Power Corporation Ltd</b>
14	Registered address	Hinduja House, 171 Dr. Annie Besant Road, Worli Mumbai 400018
15	Address for correspondence	
	Name	R. C. Padhy
	Designation (Owner /Partner/ CEO)	Vice President Technical
	Address	Hinduja House, 171 Dr. Annie Besant Road, Worli Mumbai
	Pincode	400018
	E- mail	<a href="mailto:rcpadhy.hnp@hindujagroup.com">rcpadhy.hnp@hindujagroup.com</a>
	Telephone	022-24960707
16	Details of Alternative sites examined, if any location of these sites should be shown on a topo sheet.	Not Applicable. Since the plant is already in operation.
17	Interlinked projects	Not Applicable.
18	Whether separate application of interlinked project has been submitted?	Not Applicable.
19	If yes, date of submission	Not Applicable.
20	If no, reason	Not Applicable.

21	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980 (b) The Wild Life (Protection) Act, 1972 (c) The CRZ Notification, 1991	Yes. CRZ Clearance vide number F.NO 11-58/2011-IA-III dated on 3rd Jan 2014 has been obtained.
22	Whether there is any Government Order/ Policy relevant/ relating to the site?	Nil.
23	Forest land involved (hectares)	Nil.
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the court (b) Case No (c) Orders/ directions of the court, if any and its relevance with the proposed project.	No
25	Excepted Cost of Project (Lakhs)	Rs. 554500 Lakhs

<b>(I) Activity</b>			
<b>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.)</b>			
<b>S.N</b>	<b>Information/Checklist</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities /rates, wherever possible) with source of information data</b>
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)	<b>Yes</b>	Permanent change in land use.

1.2	Clearance of existing land, vegetation and buildings?	<b>No</b>	Not applicable. Since the plant is already constructed.
1.3	Creation of new land uses?	<b>No</b>	Not applicable. Since the plant is already constructed.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	<b>No</b>	Not applicable. Since the plant is already constructed.
1.5	Construction works?	<b>No</b>	Not applicable. Since the plant is already constructed.
1.6	Demolition works?	<b>No</b>	Not applicable.
1.7	Temporary sites used for construction works or housing of construction workers?	<b>No</b>	Not applicable.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	<b>No</b>	Not applicable. Since the plant is already constructed
1.9	Underground works including mining or tunneling?	<b>No</b>	Not applicable.
1.10	Reclamation works?	<b>No</b>	Not applicable.
1.11	Dredging?	<b>No</b>	Not applicable.
1.12	Offshore structures?	<b>No</b>	Not applicable.
1.13	Production and manufacturing processes?	<b>Yes</b>	Steam is produced in pulverized coal fired boilers. This steam is utilized in the steam turbine which is tandem coupled to electric generator which produces the electricity.
1.14	Facilities for storage of goods or materials?	<b>Yes</b>	In closed sheds.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	<b>Yes</b>	No solid treatable waste generated. ETP installed for effluent treatment
1.16	Facilities for long term housing of operational workers?	<b>Yes</b>	A full-fledged colony has been developed to house the staff.
1.17	New road, rail or sea traffic during construction or operation?	<b>No</b>	Not Applicable.
1.18	New road, rail, air waterborne or other transport infrastructure including new or	<b>No</b>	Not Applicable.

	altered routes and stations, ports, airports etc?		
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	<b>Yes</b>	A new road from NTPC railway siding to HNPCL gate by passing two villages has been laid.
1.20	New or diverted transmission lines or pipelines?	<b>No</b>	Not Applicable.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	<b>No</b>	Not Applicable.
1.22	Stream crossings?	<b>No</b>	Not Applicable.
1.23	Abstraction or transfers of from ground or surface waters?	<b>No</b>	Power plant utilizes sea water.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	<b>No</b>	Not Applicable.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	<b>Yes</b>	Temporary transport of coal by covered trucks from Bayyavaram Railway siding, Kantakapally Railway siding and NTPC Ltd Simhadri railway siding till the railway siding of HNPCL is commissioned.
1.26	Long-term dismantling or decommissioning or restoration works?	<b>No</b>	Not Applicable.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	<b>No</b>	Not Applicable.
1.28	Influx of people to an area in either temporarily or permanently?	<b>Yes</b>	Temporary. Limited to construction period only.
1.29	Introduction of alien species?	<b>No</b>	
1.30	Loss of native species or genetic diversity?	<b>No</b>	Native species are used for greenbelt development.
1.31	Any other actions?	<b>No</b>	

<b>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):</b>			
<b>S. No.</b>	<b>Information/checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities /rates, wherever possible) with source of information data</b>
2.1	Land especially undeveloped or agricultural land (ha)	<b>Yes</b>	Part land (333.30 acres) required for the project has been converted to Non-agricultural land under NALA Act. Balance land has been left as it is.
2.2	Water (expected source & competing users) unit: KLD	<b>Yes</b>	Sea Water @ 1.80 lakh cum / hour
2.3	Minerals (MT)	<b>No</b>	Not Applicable
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	<b>No</b>	Not Applicable.
2.5	Forests and timber (source – MT)	<b>No</b>	Not Applicable.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	<b>Yes</b>	Indigenous Coal – 46.24 Lakh Tonnes per Annum from Mahanadi Coal Fields, Talcher, Odisha. Energy – 1040 MW generated and supplied to grid after accounting for auxiliary power consumption.
2.7	Any other natural resources (use appropriate standard units)	<b>Yes</b>	Sea water – 1.80 lakh cum / hr

<b>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.</b>									
<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>						
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)	<b>Yes</b>	Used oil – 5.4 KL/annum						
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	<b>No</b>	Nil.						
3.3	Affect the welfare of people e.g. by changing living conditions?	<b>Yes</b>	The project will result in secondary development in terms of service providers.  <table border="1" data-bbox="890 1084 1353 1317"> <thead> <tr> <th><b>Employment</b></th> <th><b>Number of persons</b></th> </tr> </thead> <tbody> <tr> <td>Direct Employment</td> <td>325</td> </tr> <tr> <td>In-Direct Employment</td> <td>600</td> </tr> </tbody> </table>	<b>Employment</b>	<b>Number of persons</b>	Direct Employment	325	In-Direct Employment	600
<b>Employment</b>	<b>Number of persons</b>								
Direct Employment	325								
In-Direct Employment	600								
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	<b>No</b>	Nil.						
3.5	Any other causes	<b>No</b>	Nil.						

<b>4. Production of solid wastes during construction or operation or decommissioning (MT/month)</b>			
<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
4.1	Spoil, overburden or mine wastes	<b>No</b>	Not Applicable.
4.2	Municipal waste (domestic and or commercial wastes)	<b>No</b>	Not applicable.

4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	<b>Yes</b>	Used Lube oil is disposed to APPCB authorized re-processors.
4.4	Other industrial process wastes	<b>No</b>	Not Applicable.
4.5	Surplus product	<b>No</b>	Not Applicable.
4.6	Sewage sludge or other sludge from effluent treatment	<b>Yes</b>	The sludge is used as manure in horticulture
4.7	Construction or demolition wastes	<b>No</b>	Not Applicable.
4.8	Redundant machinery or equipment	<b>No</b>	Not Applicable.
4.9	Contaminated soils or other materials	<b>No</b>	Not Applicable.
4.10	Agricultural wastes	<b>No</b>	Not Applicable.
4.11	Other solid wastes	<b>Yes</b>	Fly Ash – 5120 TPD max. Bottom Ash – 1280 TPD max. 16000 TPD of coal consumption and 40% ash content in coal.

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

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	<b>Yes</b>	Generation of PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> due to burning of coal in the boiler. Vehicular emissions.
5.2	Emissions from production processes	<b>Yes</b>	Same as above.
5.3	Emissions from materials handling including storage or transport	<b>Yes</b>	Fugitive dust due to handling of coal and ash.
5.4	Emissions from construction activities including plant and equipment	<b>No</b>	Not Applicable.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	<b>No</b>	Not Applicable.
5.6	Emissions from incineration of waste	<b>No</b>	Not Applicable.

5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	<b>No</b>	Not Applicable.
5.8	Emissions from any other sources	<b>No</b>	Not Applicable.

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

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	<b>Yes</b>	The major noise generating sources are steam turbines, generator, boiler feed pumps, air compressors and fans.
6.2	From industrial or similar processes	<b>No</b>	
6.3	From construction or demolition	<b>No</b>	Not Applicable.
6.4	From blasting or piling	<b>No</b>	Not Applicable.
6.5	From construction or operational traffic	<b>Yes</b>	Due to transportation of coal.
6.6	From lighting or cooling systems	<b>No</b>	Not Applicable.
6.7	From any other sources	<b>No</b>	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:**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
7.1	From handling, storage, use or spillage of hazardous materials	<b>Yes</b>	Storage of LDO
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	<b>Yes</b>	Cooling tower blowdown is discharged into the sea.

7.3	By deposition of pollutants emitted to air into the land or into water	<b>No</b>	Not Applicable.
7.4	From any other sources	<b>No</b>	Not Applicable.
7.5	Is there a risk of long term buildup of pollutants in the environment from these sources?	<b>No</b>	Not Applicable.

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

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	<b>Yes</b>	Storage of coal and LDO.
8.2	From any other causes	<b>No</b>	Not Applicable
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	<b>Yes</b>	Cyclones in the Bay of Bengal can affect the project.

**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**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes /No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
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.:	<b>Yes</b>	The project provides secondary employment opportunities/services.


	Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)		
	✓ Housing development	<b>Yes</b>	
	✓ Extractive industries	<b>Yes</b>	
	✓ Supply industries	<b>Yes</b>	
	✓ Other	<b>No</b>	
9.2	Lead to after-use of the site, which could have an impact on the environment	<b>No</b>	
9.3	Set a precedent for later developments	<b>No</b>	
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	<b>No</b>	Not yet done.

<b>(II) Environmental Sensitivity</b>			
<b>S. No.</b>	<b>Areas</b>	<b>Name/ Identity</b>	<b>Aerial distance (within 15 km.) Proposed project location boundary</b>
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil	-
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	<b>Water Bodies</b> Bay of Bengal Kaniti Cheruvu Bala Cheruvu	0.5 km – S 10.2 km – N 8.1 km - NE
		<b>Reserved Forest (RF)</b>  Nadupuru RF Dopperla Konda RF Pudimadaka RF	  5.6 km - N 8.2 km – WNW 12.1 km - SW
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Kondakarla Bird Sanctuary	13.4 km - WNW
4	Inland, coastal, marine or underground waters	Coastal (Bay of Bengal)	0.5 km – S
5	State, National boundaries	Andhra Pradesh – Odisha (Inter State Boundary)	89.20 km - NNW
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil	-
7	Defence installations	Naval Dockyard	19.55 km – NE

8	Densely populated or built-up area	Visakhapatnam City Population Urban – 2035922 Rural – 2254667 Source: Census of India (2011)	14.82 km – NE
9	Areas occupied by sensitive man-made land uses ( <i>hospitals, schools, places of worship, community facilities</i> )	<b>Schools</b>	
		Kendra Vidyalaya Mrs. AVNC High School Delhi Public School Chaitanya Public School DAV Centenary Public School Paravada Girls High School	8.50 km – N 6.11 km – ENE 9.28 km – NNW 9.28 km – NNW 9.93 km – N 9.13 km – NW
		<b>Institutions</b>	
		A V K Educational Institutions VITS College	13.69 km – NNE 12.74 km – NNE
		<b>Hospitals</b>	
		Visakhapatnam Steel General Hospital Ankitha Hospital Sri Rama Hospital CSR Hospital Visakha Eye Hospital Talasila Super Speciality Dental Hospital	10.19 km – NNW 13.48 km – NE 14.20 km – NE 14.28 km – NE 14.57 km – NE 14.00 km – NE
10	Areas containing important, high quality or scarce resources ( <i>ground water resources, surface resources, forestry,</i>	<b>Water Bodies</b> Bay of Bengal Kaniti Cheruvu Bala Cheruvu	0.5 km – S 10.2 km – N 8.1 km – NE

	<i>agriculture, fisheries, tourism, minerals)</i>	<b>Tourist Places</b> Dolphins Nose Yarada beach Gangavaram beach Mutyalampalem beach and creek Appikonda beach	14.85 km – NE 17.6 km – NE 10.3 km – ENE 14.6 km – NE 2.2 km - E
11	Areas already subjected to pollution or environmental damage. <i>(those where existing legal environmental standards are exceeded)</i>	None	Not Applicable
12	Areas susceptible to natural hazard which could cause the project to present environmental problems <i>(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)</i>	Nil. The proposed project area is coastal and falls under Zone III (Moderate), according to the Indian Standard Seismic Zone Map. The project site experiences cyclones/Tsunami.	-

“I hereby give under taking that the data and information given in the application and enclosures 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.

<b>Signature of the Applicant</b> (Project proponent/ Authorized signatory)	For <b>HINDUJA NATIONAL POWER CORPORATION LTD,</b>  <b>R.C. PADHY</b> <b>Vice President</b>
<b>Name</b>	Mr. R.C Padhy
<b>Designation</b>	Vice President – Technical
<b>Address</b>	M/s. Hinduja National Power Corporation Ltd Hinduja House, 171 Dr. Annie Besant Road, Worli Mumbai 400018

Date: 24.11.2016

Place: Mumbai