

ANNEXURE-5

**PRESENTATION USED BY PFC
IN
PUBLIC HEARING**



TCE Consulting Engineers Ltd.

ENVIRONMENTAL IMPACT ASSESSMENT OF 4000 MW IMPORTED COAL BASED MUNDRA ULTRA MEGA POWER PROJECT

PRESENTATION TO EXPERT COMMITTEE OF MoEF

COASTAL GUJARAT POWER LIMITED, NEW DELHI

A WHOLLY OWNED SUBSIDIARY OF

M/S POWER FINANCE CORPORATION LIMITED

22nd Nov'2006



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COMPANY INFORMATION

❖ **Coastal Gujarat Power Limited (CGPL), a wholly owned subsidiary of Power Finance Corporation Ltd, has been incorporated on 10th Feb 2006 under Companies act 1956 (Registration No. U- 40102 DL2006 GOI 146110)**

❖ **ROLE OF CGPL**

- Appointment of Consultant to undertake preparation of bankable project report
- Initiate land acquisition process
- Allocation of water by State Government
- Appointment of Consultant for International Competitive Bidding (ICB) document preparation & evaluation.
- Obtain various approvals & statutory clearances
- Tie-ups for off-take/ sale of power
- Initiate action for development of power evacuation system & grid tolerance considering addition of capacity by these projects.
- Green field rating of project



INTRODUCTION – Mundra UMPP

- Mundra Ultra Mega Project is a **coastal power** project based on imported coal for 4000 MW
- Initial work on **site selection**, assessing water availability for the project carried out by **CEA, CGPL and State Government Officials**
- Choice of **plant configuration** to be left to **developer & unit size may vary** (Study/Investigation has been carried out for indicative 5X800 MW Unit)
- Site is located south of **Tundawand village in Mundra Taluka** (about 60 kms from Bhuj), Kutch district of Coastal Gujarat area

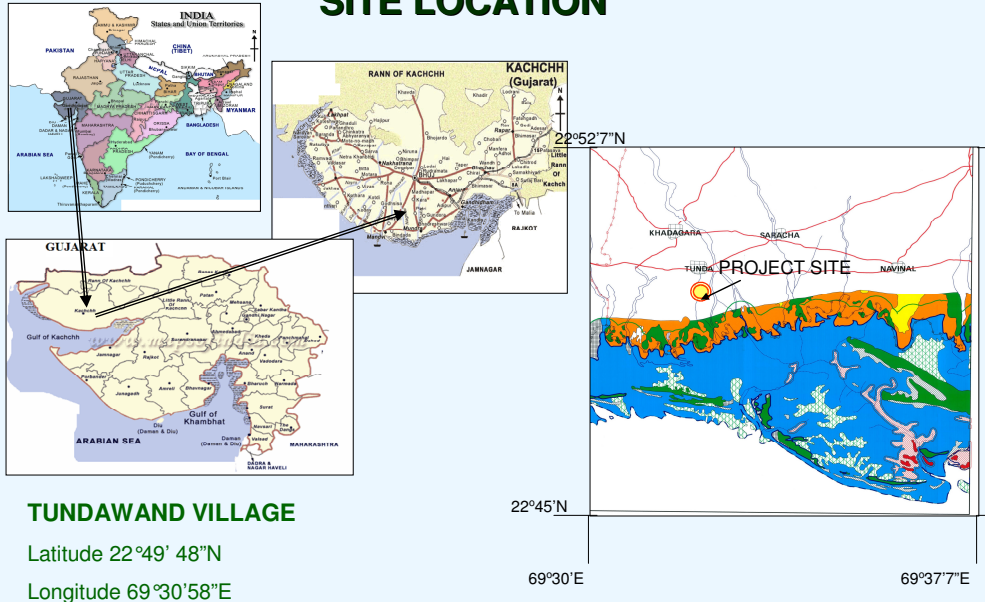


PROJECT HIGHLIGHTS



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SITE LOCATION



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PLANT LOCATION

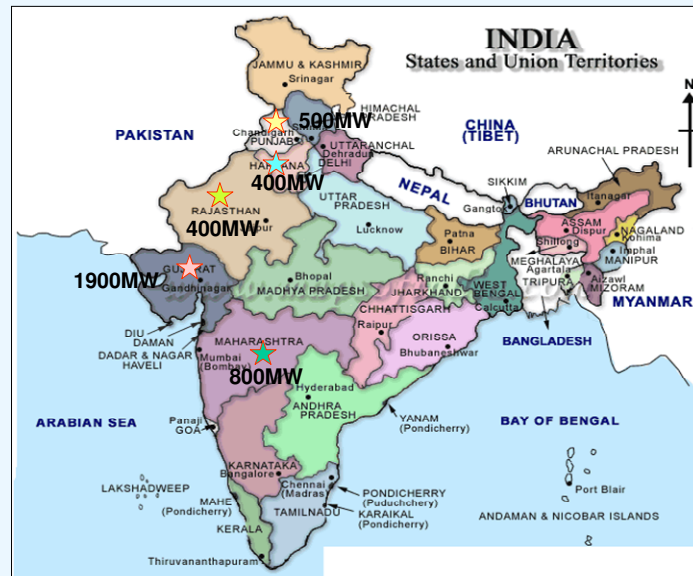
- PROJECT SITE 500 M AWAY FROM CRZ LINE NEAR **TUNDAWAND VILLAGE**, MUNDRA TALUKA, KUTCH DIST. GUJARAT STATE
- CONNECTIVITY WITH **SH-50** (VIA ANJAR), **SH-6** (VIA GANDHIDHAM) AND **NH-8A** (DELHI-KANDLA)
- NEAREST RAILWAY STATION - **ADIPUR** AT 85 KM
- NEAREST AIRPORT - **BHUJ** AT 65 KM
- SEA COAST - **1.5 KMS** AWAY FROM SITE
- MUNDRA PORT - **25 KMS** FROM SITE
- PROJECT BOUNDARY LOCATED MORE THAN **500 M** AWAY FROM **CRZ LINE**
- **INTAKE & OUTFALL**, A PERMITTED ACTIVITY IN CRZ AREA
- PLANT SITE IN **SEISMIC ZONE-V** (IS 1893 CLASSIFICATION)





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POWER ALLOCATION



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LAND IDENTIFIED

S.No	Plant Facility	Village	Survey No.	Area(Ha)	Ownership
1.	Main Plant Area	Tunda/ Kandangra	182	12	Govt. (Gaucher)
			180 (Paiki & others)	99	Govt. Waste Land
			183	39	MSEZ
			184	46	MSEZ
			180 (Upper part)	133	Private land
				169	
			Sub-Total	498+	
2.	Ash Disposal	Kandagara	Govt. Traverse Paiki & other survey No. & un-surveyed coastal land	374	1. Govt. Waste land 2. Forest land
3.	Colony	Nana Bhadiya	360 Paiki	220	Govt. Waste Land
4.	MGR			100	Right Of Way From MSEZ
5.	Water Corridor			100	Govt. Land
			TOTAL	1292 Ha (3192 acres)	



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PROPOSED SITE FOR UMPP



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SITE NEAR GULF OF KUTCH





MAIN PLANT & AUXILIARY SYSTEMS

Unit type	Supercritical
Unit Size	To be selected by developer Minimum steam conditions at steam turbine inlet to be 247kg/cm ² (a), 535 °C 565 °C reheat
Condenser Cooling water system	Indicative once through / recirculating system
Stacks	Multi Flue 275m height
Ash Disposal	Dry collection with dry/wet disposal facility for fly ash and bottom ash
Power evacuation	Through 400kV transmission network



Work Undertaken

- **Rapid Environmental Impact Assessment (REIA) Study**
- **Socio-Economic Assessment Study**
- **Feasibility Report**
- **Topographic survey**
- **Geo-Technical investigations**
- **Hydrographic survey**
- **Area-drainage Study**
- **DPR**
- **Marine Rapid EIA study**
- **Comprehensive EIA for full season (in progress)**



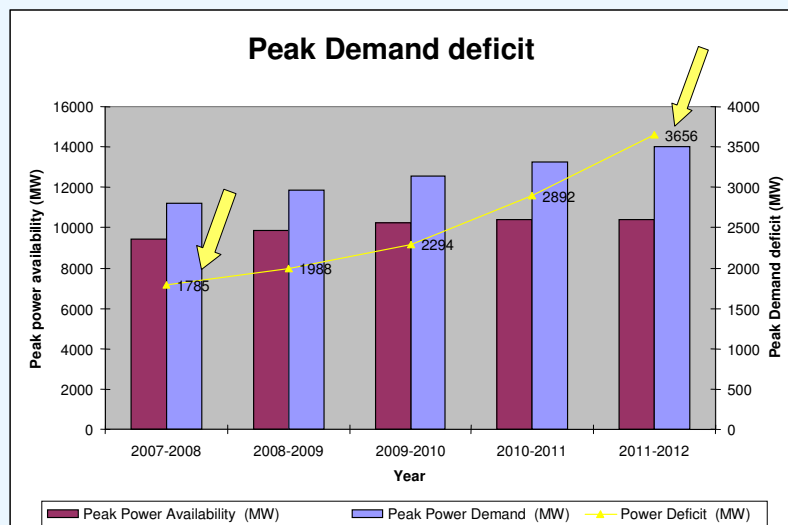
PROJECT JUSTIFICATION- Environmental

- No eco-sensitive spots such as reserved forest areas, mangrove or protected monuments in vicinity of proposed site
- Site is located generally in plain and barren area with minimum cultivation and habitation
- Site has locational advantage with availability of infrastructure
- Huge amount of sea water required for once through cooling system will be available from Gulf of Kutch through open channel
- Desalination plant proposed to be installed for plant and drinking water purpose
- Availability of suitable and adequate land with vicinity of sea for intake & outfall structures under CRZ rules



PROJECT JUSTIFICATION

POWER SCENARIO OF GUJARAT





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PROJECT DESCRIPTION

Water Required :

- ❖ Source : Sea water, **Gulf of Kutch** located at 1.5 km from site
- ❖ For Plant (5x 800MW) : 11,250,240 m³/day

Fuel Requirement

- ❖ Main Fuel : Imported Coal (To be received at **Mundra Port**)
- ❖ Consumption : 36,000 tons/day (12 MT/Yr)
- ❖ Gross Calorific Value : 6000 k Cal / kg(average)
- ❖ Sulphur content : 1.0% (max)
- ❖ Source : **China, Indonesia, Australia & South Africa**
- ❖ Auxiliary Fuel : Heavy fuel oil (HFO)/ Light Diesel Oil(LDO)
- ❖ Coal Transportation : **MGR railway system with bottom open to Site: hopper wagons**



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PLOT PLAN

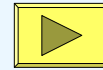
- Once Through System
- Recirculating Type system





INTAKE OUTFALL STRUCTURE (Drawing)

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REIA METHODOLOGY

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REIA Study

- Baseline (AAQ, water, noise, soil, traffic, socio-economic, ecology, met, etc.) for summer season **(Mar-May 2006)**
- Meteorological data collection
- Primary/Secondary data collection- **10km/25km**
- Land use pattern using satellite imagery data analysis & interpretation
- CRZ Map from Space Application Centre
- Dispersion modeling and other impacts
- Risk & Consequence analysis
- DMP and EMP
- Policy, Legal & administrative framework
- **Rapid Marine EIA study**
- Socio-Economic Assessment Study report
- Rapid EIA study report