



सत्यमेव जयते

File No: J-13012/62/2008-IA. II(T)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 10/09/2023



To,

Shri Santosh Kumar Singh
M/s Adani Power Limited
Adani House, Nr Mithakhali Circle, Navrangpura, Ahmedabad - 380009, Gujarat
Email id: santosh.singh1@adani.com

Subject: Expansion of Raipur Thermal Power Plant by adding 1600 (2x800) MW Ultra Super-Critical to existing 1370 (2x685) MW in an area of 885 Acres in CSIDC Industrial Area, at Village Raikheda, Gaitara & Chicholi, Tilda Block, Raipur District, Chhattisgarh by M/s Adani Power Limited – Terms of References (ToR) - reg.

Sir/Madam,

This is in reference to your application for grant of Terms of Reference under the provision of the EIA Notification 2006, as amended in respect of project Expansion of Raipur Thermal Power Plant by adding 1600 (2x800) MW Ultra Super-Critical to existing 1370 (2x685) MW in an area of 885 Acres in CSIDC Industrial Area, at Village Raikheda, Gaitara & Chicholi, Tilda Block, Raipur District, Chhattisgarh by M/s Adani Power Limited submitted to Ministry vide proposal number IA/CG/THE/435583/2023 dated 07/07/2023.

2. The particulars of the proposal are as below :

| | |
|--|--|
| (i) ToR Identification No. | TO23A0601CG5945046N |
| (ii) File No. | J-13012/62/2008-IA. II(T) |
| (iii) Clearance Type | Fresh ToR |
| (iv) Category | A |
| (v) Project/Activity Included Schedule No. | 1(d) Thermal Power Plants |
| (vi) Sector | Thermal Projects |
| (vii) Name of Project | Expansion of Raipur Thermal Power Plant by adding 1600 (2x800) MW Ultra Super-Critical to existing 1370 (2x685) MW |
| (viii) Name of Company/Organization | M/s Adani Power Limited |
| (ix) Location of Project (District, State) | Raipur, Chhattisgarh |
| (x) Issuing Authority | MoEF&CC |

| | |
|--|----|
| (xii) Applicability of General Conditions | no |
| (xiii) Applicability of Specific Conditions | no |

3. In view of the particulars given in the Para 2 above, the project proposal inter-alia including Form-1 (Part A and B) were submitted to the Ministry for an appraisal by the Expert Appraisal Committee (EAC) in the Ministry under the provision of EIA notification 2006, as amended.

4. The above-mentioned proposal has been considered by Expert Appraisal Committee (Thermal Power projects) in its 44th meeting held on 20th July, 2023. The minutes of the meeting and all the documents submitted viz. Form-1 (Part A and Part B) are available on PARIVESH portal which can be accessed by scanning the QR Code above.

5. The brief about configuration of plant/equipment, products and by products and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1(Part A and B) and presented during EAC meeting are annexed as **Annexure 3**.

6. The EAC in its 44th meeting held on 20th July, 2023, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Standard Terms of Reference along with additional Terms of Reference under the provision of EIA Notification, 2006, as amended for conducting EIA study as detailed in **Annexure 1**.

7. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006, as amended and after accepting the recommendations of the Expert Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of Expansion of Raipur Thermal Power Plant by adding 1600 (2x800) MW Ultra Super-Critical to existing 1370 (2x685) MW in an area of 885 Acres in CSIDC Industrial Area, at Village Raikheda, Gaitara & Chicholi, Tilda Block, Raipur District, Chhattisgarh by M/s Adani Power Limited, under the provisions of EIA Notification, 2006, as amended.

8. The Ministry reserves the right to stipulate additional conditions, if found necessary.

9. The Terms of Reference (ToR) to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. You are requested to kindly submit the final EIA/EMP prepared as per TORs to the Ministry for considering the proposal for environmental clearance within 4 years as per the extent rule of the Ministry notified time to time.

11. Grant of Terms of Reference does not necessarily meant grant to Environmental Clearance.

12. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc.

13. This issues with the approval of the Competent Authority.

Copy To

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -110 001.

2. The Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change Regional Office(WCZ), Ground Floor East Wing, New Secretariat Building, Civil Lines, Nagpur-440001.
3. Principal Secretary, Forest and Climate Change, Government of Chhattisgarh, Mahanadi Bhawan, Nawa Raipur, Atal Nagar, Raipur (CG)
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
5. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block Sector-19, Atal Nagar Dist- Raipur(C.G.)
6. The District Magistrate, Raipur Collectorate, Kutchery Chowk, Raipur, Chhattisgarh 492001.
7. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, **New Delhi** – 3
8. Guard File/Record File/Monitoring File/Website of MoEF&CC

Annexure 1

Specific Terms of Reference for (Thermal Power Plants)

1. Disaster Management

| S. No | Terms of Reference |
|-------|---|
| 1.1 | 1. Disaster Management Plan shall be prepared and incorporated in EIA/EMP report. |

2. Environmental Management and Biodiversity Conservation

| S. No | Terms of Reference |
|-------|--|
| 2.1 | <ol style="list-style-type: none"> 1. Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 15-km radius of the proposed project shall be conducted in view of proximity of wildlife sanctuary. 2. PCCF letter shall be obtained stating that no projects component is falling in any protected area, Wildlife sanctuary, eco-sensitive area and wildlife corridor. 3. Wildlife conservation plan shall be prepared, in consultation with State forest and wildlife department, with adequate fund for wildlife habitat management, preserving wildlife and its corridors and be submitted along with EIA/EMP report. Human-Wildlife Conflict issue shall be studied and such incidences reported in the study area during last 10 years shall be submitted. No provision for purchasing the vehicle shall be made in the wildlife conservation plan. 4. Action plan for continuous analysis of surface water quality in and around 1km from the plant boundary. 5. Details of the existing rail, road networks and alignment of transmission lines along with quantity of coal being transported/to be transported for existing units and proposed expansion, its source and transportation mode shall be submitted. |

| S. No | Terms of Reference |
|-------|--|
| | <p>6. Radioactivity studies along with coal analysis to be provided (sulphur, ash percentage and heavy metals including Pb, Cr, As and Hg). Details of auxiliary fuel, if any including its quantity, quality, storage, etc should also be given.</p> <p>7. A comparative chart shall be prepared with changes observed from previous baseline study and present baseline study.</p> <p>8. Detailed action plan shall be prepared for maintenance of air pollution control equipment.</p> <p>9. An action plan for reclamation plan of existing Ash pond shall be prepared be submitted along with EIA/EMP report.</p> <p>10. Details of Ash management of existing and proposed project shall be submitted, along with 5-year plan for 100 % ash utilization.</p> <p>11. Details of Dry Ash handling system along with supplementary coal handling system shall be submitted.</p> <p>12. Proper protection measures like HDPE lining, appropriate height of bund and adequate distance between proposed Ash pond and water body (minimum 60 meter) etc. shall be planned so as to reduce the possibility of mixing of leachate with any fresh water body for under construction ash pond. High Density Slurry disposal plan shall be prepared.</p> <p>13. Pond and ground water quality (10 locations within 2 km radius of the plant boundary) shall be studied and report be submitted along with EIA/EMP. Action plan for Ground water monitoring stations on all hotspots like schools/hospitals within 2 km radius of the plant boundary be submitted.</p> <p>14. Baseline Study for Heavy metals in Ground water, Surface water and soil to be carried out and incorporated in EIA/EMP report.</p> <p>15. Details pertaining to water source, treatment and discharge should be provided.</p> <p>16. Zero Liquid Discharge plan shall be submitted.</p> <p>17. Action plan for development of green belt (33% of total project cover area) along the periphery of the project boundary shall be provided with a video clip of existing green belt.</p> <p>18. PP shall submit action plan for using treated Sewage/Domestic wastewater for its operations.</p> <p>19. Project Proponent to conduct Environmental Cost Benefit Analysis for the project in EIA/EMP Report.</p> <p>20. An action plan shall be prepared for Water shed development within 10 km radius of the plant boundary in consultation with reputed government institution.</p> |

3. Miscellaneous:

| S. No | Terms of Reference |
|-------|---|
| 3.1 | All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/ EMP report in the relevant chapter. |

| S. No | Terms of Reference |
|-------|---|
| 3.2 | <ol style="list-style-type: none"> 1. All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/ EMP report in the relevant chapter. 2. Public Consultation shall be carried out by uploading the draft EIA/EMP report on Pollution Control Board's website, District collector website/office and publishing notice in newspapers (both in Hindi and English) for seeking comments from the general public. The comments received so shall be addressed in the final EIA report along with time bound action plan and financial budget allocation. 3. Certified compliance report of previous EC to be submitted certified by Regional office of the MoEF&CC. IRO shall also provide specific observations on the status of OCMS and emission control equipment of all units of the plant. 4. PP shall submit details of court cases and its status for the project (if any). 5. The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples. 6. Arial view video of project site shall be recorded through drone and be submitted. 7. Undertaking from the pro that 100% ash utilization as per action plan presented by the PP during the EAC meeting and submitted vide letter no. RVUN/CE (TD-NPP)/SE(TD-NPP)/F./D. 223 dated 19.05.2023 along with table shall be submitted. |

Standard Terms of Reference for (Thermal Power Plants)

1 Statutory compliance

| S. No | Terms of Reference |
|-------|---|
| 1.1 | The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference. |
| 1.2 | Vision document specifying prospective long term plan of the project shall be formulated and submitted. |
| 1.3 | Latest compliance report duly certified by the Regional Office of MoEF&CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted. |

2 Details of the Project and Site

| S. No | Terms of Reference |
|-------|--|
| 2.1 | The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted. |

| S. No | Terms of Reference |
|-------|---|
| 2.2 | Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed. |
| 2.3 | Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted. |
| 2.4 | The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them. |
| 2.5 | Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided. |
| 2.6 | Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided. |
| 2.7 | Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided. |
| 2.8 | If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents. |
| 2.9 | The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report. |
| 2.10 | Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided. |
| 2.11 | Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted. |

3 Ecology biodiversity and Environment

| S. No | Terms of Reference |
|-------|--|
| 3.1 | A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed |

| S. No | Terms of Reference |
|-------|--|
| | and detailed plan submitted. |
| 3.2 | Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him. |
| 3.3 | A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted. |
| 3.4 | The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents. |
| 3.5 | Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State. |
| 3.6 | It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways. |
| 3.7 | Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted |
| 3.8 | Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea. |
| 3.9 | Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water. |
| 3.10 | Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished. In addition, wherever ground water is drawn, PP shall submit detailed plan of Water charging activity to be undertaken. |
| 3.11 | Feasibility of near zero discharge concept shall be critically examined and its details submitted. |
| 3.12 | Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified. |

| S. No | Terms of Reference |
|-------|--|
| 3.13 | Plan for recirculation of ash pond water and its implementation shall be submitted. |
| 3.14 | Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area. |
| 3.15 | Hazards Characterization: Past incidents of hazard events within 10km radius of project area with detailed analysis of causes and probability of reoccurrence |

4 Environmental Baseline study and mitigation measures

| S. No | Terms of Reference |
|-------|--|
| 4.1 | One complete season (critical season) site specific meteorological and AAQ data (except monsoon season) as per latest MoEF&CC Notification shall be collected along with past three year's meteorological data for that particular season for wind speed analysis and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM10, PM2.5, SO2, NOx, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre - dominant downwind direction at a location where maximum ground level concentration is likely to occur. |
| 4.2 | In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs). |
| 4.3 | A list of industries existing and proposed in the study area shall be furnished. |
| 4.4 | Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modelling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics. |
| 4.5 | Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports. |
| 4.6 | Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished. |
| 4.7 | Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted |

| S. No | Terms of Reference |
|-------|---|
| 4.8 | Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt. |
| 4.9 | For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted. |
| 4.10 | Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished. |

5 Environmental Management Plan

| S. No | Terms of Reference |
|-------|--|
| 5.1 | EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified. |
| 5.2 | A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be prepared. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Provision for mock drills shall be suitably incorporated to check the efficiency of the plans drawn. |
| 5.3 | The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/ Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely. |
| 5.4 | Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash along with monitoring mechanism. |

6 Green belt development

| S. No | Terms of Reference |
|-------|--|
| 6.1 | Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary not less than 2000 tree per ha with survival rate of more than 85% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO ₂ and other gaseous pollutants and hence |

| S. No | Terms of Reference |
|-------|---|
| | a stratified green belt should be developed. |
| 6.2 | Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months |

7 Socio-economic activities

| S. No | Terms of Reference |
|-------|---|
| 7.1 | Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities. |
| 7.2 | Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project. |
| 7.3 | If the area has tribal population, it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land. |
| 7.4 | A detailed CER plan along with activities wise break up of financial commitment shall be prepared in terms of the provisions OM No. 22-65/2017-IA.III dated 30.09.2020. CER component shall be identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified. |
| 7.5 | While formulating CER schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CER details done in the past should be clearly spelt out in case of expansion projects. |
| 7.6 | R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them. |
| 7.7 | Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared. |
| 7.8 | Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse |

| S. No | Terms of Reference |
|-------|--|
| | impact on their health due to working in non-conductive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required. |

8 Corporate Environment Policy

| S. No | Terms of Reference |
|-------|--|
| 8.1 | Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report. |
| 8.2 | Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA. |
| 8.3 | What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given. |
| 8.4 | Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report. |

9 Miscellaneous

| S. No | Terms of Reference |
|-------|--|
| 9.1 | All the above details should be adequately brought out in the EIA report and in the presentation to the Committee. |
| 9.2 | Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished. |
| 9.3 | In case any dismantling of old plants are envisaged, the planned land use & land reclamation of dismantled area to be furnished. |

10 Additional TOR for Coastal Based Thermal Power Plants Projects (TPPs)

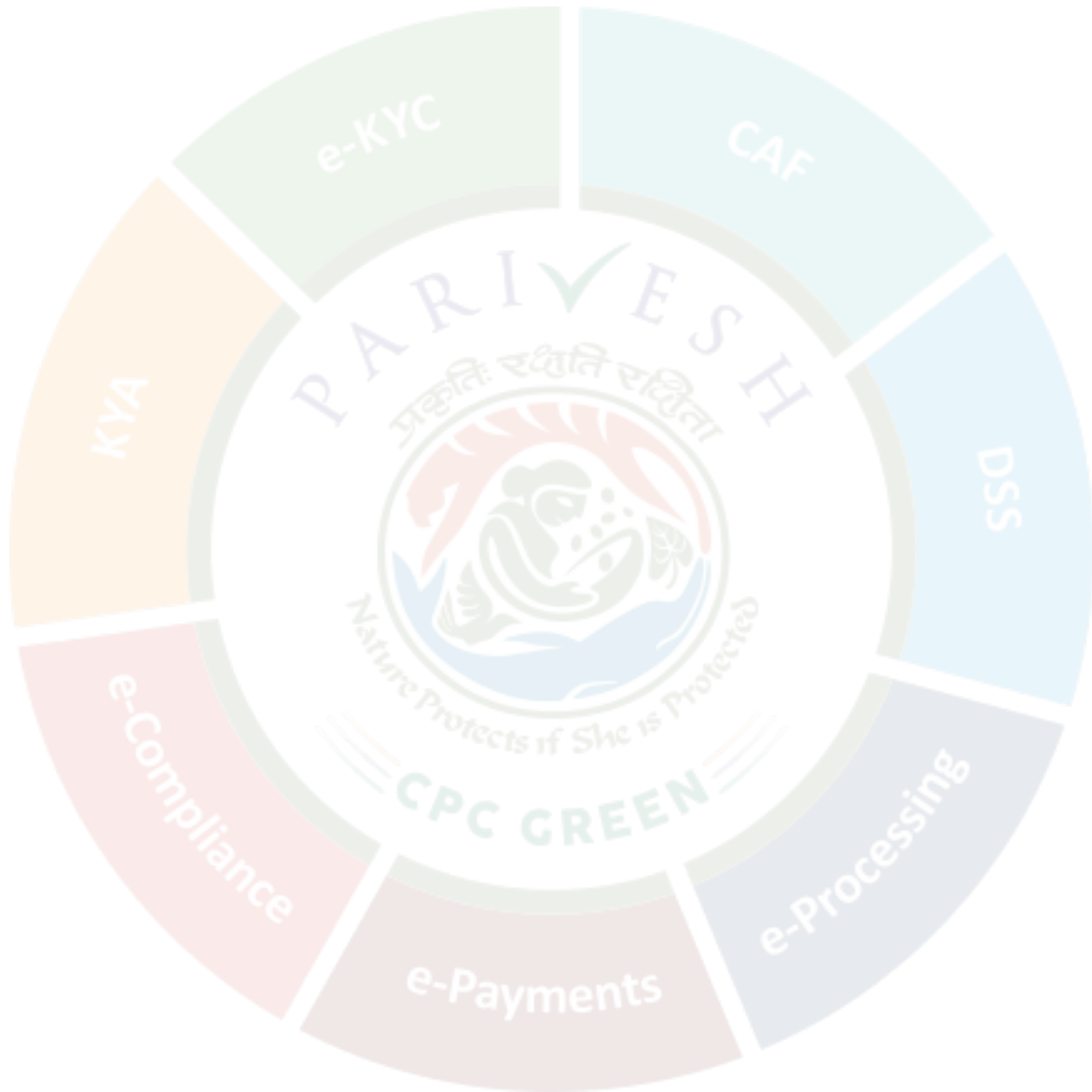
| S. No | Terms of Reference |
|-------|--|
| 10.1 | Low lying areas fulfilling the definition wetland as per Ramsar Convention shall be identified and clearly demarcated w.r.t the proposed site. |
| 10.2 | If the site includes or is located close to marshy areas and backwaters, these areas must be excluded from the site and the project boundary should be away from the CRZ line. Authenticated CRZ map from any of the authorized agencies shall be submitted. |

| S. No | Terms of Reference |
|-------|--|
| 10.3 | The soil levelling should be minimum with no or minimal disturbance to the natural drainage of the area. If the minor canals (if any) have to be diverted, the design for diversion should be such that the diverted canals not only drains the plant area but also collect the volume of flood water from the surrounding areas and discharge into marshy areas/major canals that enter into creek. Major canals should not be altered but their embankments should be strengthened and desilted. |
| 10.4 | Additional soil required for levelling of the sites should as far as possible be generated within the site itself in such a manner that the natural drainage system of the area is protected and improved. |
| 10.5 | Marshy areas which hold large quantities of flood water to be identified and shall not be disturbed. |
| 10.6 | No waste should be discharged into Creek, Canal systems, Backwaters, Marshy areas and seas without appropriate treatment. Wherever feasible, the outfall should be first treated in a Guard Pond and then only discharged into deep sea (10 to 15 m depth). Similarly, the Intake should be from deep sea to avoid aggregation of fish and in no case shall be from the estuarine zone. The brine that comes out from Desalinization Plants (if any) should not be discharged into sea without adequate dilution. |
| 10.7 | Mangrove conservation and regeneration plan shall be formulated and Action Plan with details of time bound implementation shall be specified, if mangroves are present in Study Area. |
| 10.8 | A common Green Endowment Fund should be created by the project proponents out of EMP budgets. The interest earned out of it should be used for the development and management of green cover of the area. |
| 10.9 | Impact on fisheries at various socio economic level shall be assessed. |
| 10.10 | An endowment Fishermen Welfare Fund should be created out of CER grants not only to enhance their quality of life by creation of facilities for Fish Landing Platforms / Fishing Harbour / cold storage, but also to provide relief in case of emergency situations such as missing of fishermen on duty due to rough seas, tropical cyclones and storms etc. |
| 10.11 | Tsunami Emergency Management Plan shall be prepared wherever applicable and Plan submitted prior to the commencement of construction work. |
| 10.12 | There should not be any contamination of soil, ground and surface waters (canals & village pond) with sea water in and around the project sites. In other words necessary preventive measures for spillage from pipelines, such as lining of Guard Pond used for the treatment of outfall before discharging into the sea and surface RCC channels along the pipelines of outfall and intake should be adopted. This is just because the areas around the projects boundaries could be fertile agricultural land used for paddy cultivation. |

Annexure 2

Details of Products & By-products

| Name of the product /By-product | Product / By-product | Existing | Proposed | Total | Unit | Mode of Transport / Transmission |
|---------------------------------|------------------------|----------|----------|-------|----------------|----------------------------------|
| Electricity Generation | Electricity Generation | 1370 | 1600 | 2970 | Mega Watt (MW) | Transmission Lines |



The salient features of the project

The details of the project submitted by project proponent and ascertained from the document submitted are mentioned below:

- i. M/s Adani Power Limited (APL), Raipur (Formerly Known as Raipur Energen Ltd. - REL) is a company primarily engaged in the business of power generation and owns and operates a 1370 (2x685) MW Coal based Thermal Power Plant situated at Raipur Dist. in Chhattisgarh.
- ii. Earlier, REL was known as GMR Chhattisgarh Energy Limited (GCEL) and earlier belonged to GMR Group. GCEL got into financial stress and was unable to service its debt obligations, so the lead bank Axis Bank initiated a competitive bidding process. Adani Power Limited (APL) selected as successful bidder and LOI issued to APL on 24.06.2019. APL acquired control over GCEL w.e.f. 2nd August 2019 on fulfilment of conditions precedent as per SPAs and renamed it as 'Raipur Energen Limited'.
- iii. Further, Raipur Energen Limited has implemented approved Board Resolution to consider the matter for Amalgamation of the Company with Adani Power Limited as per Scheme of Amalgamation by NCLT.
- iv. The Project is proposed to be developed as an expansion by adding 1600 (2x800) MW to the existing 1370 (2x685) MW units and all the necessary infrastructure to cater the requirement of the enhanced capacity will be developed within the existing plant boundary while also using the facilities of the existing plant.
- v. The plot is located at 21° 27' 42.16" to 21° 26' 26.03" N latitude and 81° 51' 48.45" to 81° 50' 48.09" E longitude.
- vi. The MoEF&CC granted Environmental Clearance for Super Critical Coal Based Thermal Power Plant of capacity 1370 (2X685) MW in CSIDC Industrial Area, at Villages Raikheda, Gaitara and Chicholi, Tilda Block, Raipur District, Chhattisgarh vide letter no J-13012/62/2008-IA. II(T) dated: 09.05.2011 and its subsequent amendments dated 13.06.2013, 18.11.2014, 04.02.2015, 09.12.2015, & EC transferred dated; 05.11.2019 (GCEL to REL) & 24.04.2023 (REL to APL).
- vii. CECB has granted Consent to Operate (CTO) with with validity up to 31.03.2025. Unit- 1 of the power station achieved COD in June'2015 and Unit -2 of the power station in April'2016.
- viii. Latest Six-Monthly EC compliance report for the period October'2022 to March'2023 is submitted to MoEF&CC and CECB vide letter no. PL/REL/EMD/MoEFCC/EC/208/05/23 dated; 23.05.2023. IRO Raipur, MoEF&CC has submitted compliance status report vide file no. 4-11/2013(ENV)/485 & 779 dated: 19.01.2022 & 21.06.2022. MoEF&CC has Certified EC Compliance vide file no. IA-J-11014/15/2022-IA-I dated: 16th March'2023.
- ix. Subsequently, Consent to Establish (CTE) was issued on dated; 25.07.2011 and Consent to Operate (CTO) was issued with validity up to 31.03.2025 from Chhattisgarh Environment Conservation Board (CECB), Raipur, Chhattisgarh. The project was commissioned in April'2016 and plant/units are operational.
- x. Adani Power Limited, Raipur has proposed to set up an Ultra Super-Critical Thermal Power Project with configuration of two units of 800 MW each deploying

the state-of-the-art technology in the field, to have an installed capacity of 1600 MW. The proposed project is envisaged as an expansion of the existing 2x685 MW capacity within the existing plant boundary.

xi. The silent features of the project are as under: -

| | | | |
|-------------------------------------|--|---------------------|----------------------|
| Name of the Proposal | Proposed Expansion of Raipur Thermal Power Plant by adding 1600 (2x 800) MW Ultra Super-Critical to existing 1370 (2x685) MW in CSIDC Industrial Area, at Village Raikheda, Gaitara & Chicholi, Tilda Block, Raipur District, Chhattisgarh | | |
| Location (Including coordinates) | Pillar No. | Latitude (N) | Longitude (E) |
| | A | 21°27'45.95" | 81°51'51.75" |
| | B | 21°27'44.66" | 81°51'53.50" |
| | C | 21°27'41.06" | 81°51'52.30" |
| | D | 21°27'39.70" | 81°51'50.02" |
| | E | 21°27'38.71" | 81°51'51.33" |
| | F | 21°27'38.13" | 81°51'57.13" |
| | G | 21°27'35.78" | 81°51'57.19" |
| | H | 21°27'35.77" | 81°51'52.84" |
| | I | 21°27'33.63" | 81°51'50.33" |
| | J | 21°27'33.15" | 81°51'50.13" |
| | K | 21°27'23.74" | 81°51'41.60" |
| | L | 21°27'26.11" | 81°51'18.09" |
| | M | 21°27'2.25" | 81°51'19.53" |
| | N | 21°27'13.03" | 81°51'30.62" |
| | O | 21°27'16.88" | 81°52'5.35" |
| | P | 21°27'6.33" | 81°52'10.82" |
| Q | 21°26'23.19" | 81°51'32.62" | |
| R | 21°26'42.34" | 81°51'22.09" | |
| S | 21°26'25.57" | 81°50'48.18" | |

| | | | |
|--|---|--------------|--------------|
| | T | 21°27'7.96" | 81°50'49.46" |
| | U | 21°27'27.40" | 81°50'36.72" |
| | V | 21°27'14.65" | 81°51'6.40" |
| | W | 21°27'36.98" | 81°50'58.78" |
| | X | 21°27'37.44" | 81°51'17.76" |
| | Y | 21°27'38.33" | 81°51'37.57" |
| | Z | 21°27'43.34" | 81°51'44.74" |
| Inter- state issue involved | No | | |
| Seismic zone | Seismic Zone II (as per IS:1893) | | |
| Capacity / Cultural command area (CCA) | 1600 (2x 800) MW | | |
| Attracts the General Conditions (Yes/No) | No | | |
| Powerhouse Installed Capacity | 1600 MW, Configured as 2x 800 MW | | |
| Generation of Electricity Annually | 1600 MWh | | |
| No. of Units | 4 no. of Units (Existing: 2 no. & Proposed: 2 no.) | | |
| Cost of project | Project Cost: <ul style="list-style-type: none"> Existing EC: 8290.0 Crore Proposed Expansion (2x800) MW is 13,600 Crore | | |
| Total area of Project | It is an expansion project, proposed within the existing plant boundary. <ul style="list-style-type: none"> The land is already in possession with APL, Raipur TPP. The total area of the project site 358.15 Ha. (885 Acres) including the existing facility. | | |

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|--|---|
| <p>Details of consultant and status of accreditation</p> | <p>Accredited Consultant: Paramarsh Servicing Environment and Development</p> <p>Accreditation Certificate No.: NABET/EIA/ 2124/RA 0224 (Valid till: 01/05/2024)</p> |
| <p>Project Benefits</p> | <p>The proposed expansion project will improve the power supply position in the state as well as in India, which is vital for economic growth as well as improving the quality of life.</p> <ul style="list-style-type: none"> • Infrastructure development. • Direct & indirect employment opportunity • Revenue generation to central & state government. • Trickle-down effect of enhance profitability to the local populace • Skill development and capacity building like vocational training, income generation programmes and entrepreneurship development program • Awareness programme and community activities, like health camps, medical aides, family welfare camps, sanitization/ cleanliness awareness programme, immunization camp, sports & cultural activities, plantation, etc. • Awareness about water borne diseases and pandemic diseases etc. will be done to local villagers. <p>The project will also attract the high-income groups to invest in the region and thus bring about economic growth of the region.</p> |
| <p>Status of other statutory clearances</p> | <p>The Environmental Clearance granted for Super Critical Coal Based Thermal Power Plant of capacity 1370 (2X685) MW in CSIDC Industrial Area, at Villages Raikheda, Gaitara and Chicholi, Tilda Block, Raipur District, Chhattisgarh from Ministry of Environment, Forest & Climate Change (MoEF&CC) vide letter no J-13012/62/2008-IA. II(T) dated: 09.05.2011 and its subsequent amendments dated 13.06.2013, 18.11.2014, 04.02.2015, 09.12.2015, & EC transferred dated; 05.11.2019 (GCEL to REL) & 24.04.2023 (REL to APL).</p> <p>Subsequently, Consent to Establish (CTE) was issued on dated; 25.07.2011 and Consent to Operate (CTO) was issued with validity up to 31.03.2025 from Chhattisgarh Environment Conservation Board (CECB), Raipur, Chhattisgarh. The</p> |

| | |
|--|---|
| | project was commissioned in April'2016 and plant/units are operational. |
| R&R details | Not Applicable |
| Any litigation/Court case pertaining to the project | There are no litigation/Court cases pertaining to proposed project except few cases as regulatory & non-regulatory on utilities like Transmission, Rail, Mines etc. |
| Certified EC compliance report (if applicable) | IRO Raipur, MoEF&CC has submitted compliance status report vide file no. 4-11/2013(ENV)/485 & 779 dated: 19.01.2022 & 21.06.2022. MoEFCC has Certified EC Compliance vide file no. IA-J-11014/15/2022-IA-I dated: 16 th March'2023. |
| Status of Stage-I FC | Not Applicable. The proposed expansion is within the existing land. The land is already under possession with Adani Power Limited. |
| Additional detail (If any) | It is an expansion project, proposed within the existing plant boundary. |
| Is FRA (2006) done for FC-I | Not Applicable. |
| Fuel to be used: | Coal and Auxiliary Fuel |
| Quantity of Fuel required per Annum: | Annual Coal requirement for the 2x800 MW units is about 7.89 MTPA, considering Design coal GCV as 3200 kcal/kg. Auxiliary liquid fuels, viz. LDO/HSD requirement per annum: 2500 kilo litres. |
| Coal Linkage / Coal Block: (If Block allotted, status of EC & FC of the Block) | MOU from nearby commercial coal mines. SEL-South Eastern Coal field limited, Raigarh Area MCL- Mahandi Coal field Limited, Korba |
| Details of mode of transportation of coal | Coal transportation at Plant shall be through existing Rail facility. Distance: 300 – 400 km |

| from coal source to the plant premises along with distances | | | | | | | | | | | | | | | | |
|---|--|---------------|--------------|---------------|---|-------------|--------------|---|-------------|--------------|---|--------------|--------------|---|--------------|--------------|
| Fly Ash Disposal System Proposed | <p>Fly ash will be collected in dry form for utilization, while bottom ash will be collected in wet form. There would be provision for dry disposal of fly ash from storage silos to closed tankers for utilization in cement industries, abandoned mine filling, road construction, aggregate replacement in concrete, for manufacturing bricks, etc. as per Fly Ash Notification, 31st December'2021 and amendments.</p> <p>Provision would be kept for HCSD disposal of both bottom and fly ash to ash pond in case of exigency. In this case, both bottom ash and fly ash will be disposed through HCSD system to the proposed ash dyke.</p> | | | | | | | | | | | | | | | |
| <p>Ash Pond/ Dyke (Area, Location & Co-ordinates)</p> <p>Average height of area above MSL (m)</p> | <p>Ash Dyke Area: 150 Acres</p> <table border="1"> <thead> <tr> <th>Pillar No.</th> <th>Latitude (N)</th> <th>Longitude (E)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°27'9.46"</td> <td>81°51'55.40"</td> </tr> <tr> <td>2</td> <td>21°27'2.20"</td> <td>81°51'41.08"</td> </tr> <tr> <td>3</td> <td>21°26'49.00"</td> <td>81°51'35.26"</td> </tr> <tr> <td>4</td> <td>21°26'29.00"</td> <td>81°51'39.00"</td> </tr> </tbody> </table> <p>Average height of area: 312 m above MSL</p> | Pillar No. | Latitude (N) | Longitude (E) | 1 | 21°27'9.46" | 81°51'55.40" | 2 | 21°27'2.20" | 81°51'41.08" | 3 | 21°26'49.00" | 81°51'35.26" | 4 | 21°26'29.00" | 81°51'39.00" |
| Pillar No. | Latitude (N) | Longitude (E) | | | | | | | | | | | | | | |
| 1 | 21°27'9.46" | 81°51'55.40" | | | | | | | | | | | | | | |
| 2 | 21°27'2.20" | 81°51'41.08" | | | | | | | | | | | | | | |
| 3 | 21°26'49.00" | 81°51'35.26" | | | | | | | | | | | | | | |
| 4 | 21°26'29.00" | 81°51'39.00" | | | | | | | | | | | | | | |
| <p>Quantity of</p> <p>c. Fly Ash to be generated</p> <p>d. Bottom Ash to be generated:</p> | <p>Ash (Fly Ash & Bottom Ash): 3.83 MTPA</p> <p>Fly ash: 3.064 MTPA</p> <p>Bottom ash: 0.766 MTPA</p> | | | | | | | | | | | | | | | |
| Fly Ash utilization (details) | Road Construction, Cement Industries, abandoned mines filling, aggregates replacement in concrete and manufacturing of bricks (As per Fly ash notification December 2021 and its amendments) | | | | | | | | | | | | | | | |
| Stack Height (m) & Type of Flue | 120 m & Bi flues with FGD and low NOx/SCR. | | | | | | | | | | | | | | | |

| Name of Project | Expansion / Green Field (new): (IPP / Merchant / Captive): | Expansion (IPP) | | | |
|--|--|-----------------|---|-------------|---------------------------|
| Proposed Expansion of Raipur Thermal Power Plant by adding 1600 (2x 800) MW Ultra Super-Critical to existing 1370 (2x685) MW in CSIDC Industrial Area, at Village Raikheda, Gaitara & Chicholi, Tilda Block, Raipur District, Chhattisgarh | If expansion, the details of ECs (including amendments and extension of validity) of existing Units etc. | S. No | Description of Environmental Clearance | Date | Letter No |
| | | 1. | Environmental Clearance for 2x685 MW Super Critical Imported Coal Based Thermal Power Plant at villages Raikheda, Gaitara and Chicholi, in Tilda Block, in Raipur District, in Chhattisgarh | 09.05.2011 | J-13012/62/2008-IA.II (T) |
| | | 2. | Amendment in Environmental Clearance | 13.06.2013 | |
| | | 3. | Amendment in Environmental Clearance w.r.t temporary permission for road | 18.11.2014 | |

| | | | | | |
|--|---|---|--|------------|--|
| | | | transportation of coal | | |
| | | 4. | Amendment in Environmental Clearance regarding Change in Source of Coal | 04.02.2015 | |
| | | 5. | Amendment in Environmental Clearance regarding Change in Source of Coal | 09.12.2015 | |
| | | 6. | Environmental Clearance Transfer from M/s. GMR Chhattisgarh Energy Limited to Raipur Energen Limited (REL) | 05.11.2019 | |
| | | 7. | Environmental Clearance Transfer from REL to Adani Power Limited (APL). | 24.04.2023 | |
| | If expansion, the date of latest monitoring done by the Regional Office (R.O) | Latest Six-Monthly EC compliance report for the period October'2022 to March'2023 is submitted to MoEF&CC and CECB vide letter no. APL/REL/EMD/MoEFCC/EC/208/05/23 dated; 23.05.2023. | | | |

| | | | | |
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| | <p>of MoEF&CC for compliance of the conditions stipulated in the environmental I and CRZ clearances of the previous phases. A certified copy of the latest R.O. monitoring report shall also be submitted.</p> | <p>IRO Raipur, MoEF&CC has submitted compliance status report vide file no. 4-11/2013(ENV)/485 & 779 dated: 19.01.2022 & 21.06.2022.</p> <p>MoEFCC has Certified EC Compliance vide file no. IA-J-11014/15/2022-IA-I dated: 16th March'2023.</p> | | |
| <p>Whether the project is in the Critically Polluted Area(CPA) or within 10 km of CPA. If so, the details thereof:</p> | <p>No</p> | | | |
| <p>Capacity & Unit Configurations:</p> | <p>Electricity Generation capacity: 1600 MW, Configured as 2x 800 MW</p> | | | |
| <p>Land requirement: a) TPP site b) Ash Pond c) Township d) MGR etc. (if expansion state additional land</p> | <p>Land requirement (In acres)</p> <p>BTG (including FGD (Ph II), Switchyard, Transformer yard etc.</p> <p>Coal & Ash Facility (Including Stock yard & AHP facility)</p> <p>Water System (Including raw water reservoir, Cooling Tower, CW Pump house, DM Water System, Clarified,</p> | <p>Existing</p> <p>35</p> <p>58</p> <p>20</p> | <p>Proposed</p> <p>50</p> <p>25</p> <p>20</p> | <p>Total</p> <p>85</p> <p>83</p> <p>40</p> |

| | | | | |
|---|---|------------|----|------------|
| requirement) | Industrial Wastewater Treatment facility) | | | |
| | Raw water reservoir | 65 | 60 | 125 |
| | Green Belt | 353 | | 353 |
| | Ash dyke | 150 | 0 | 150 |
| | Misc. Facility (Including Plant Road/boundary road, Misc. Building etc. vacant space) | 34 | 15 | 49 |
| | Total | 885 | | 885 |
| Status of Land acquisition: | The proposed expansion is within the existing land. The land is already under possession with Adani Power Limited. | | | |
| Status of the project: If under construction phase: please specify the reasons for delay, works completed till date and balance works along with expected date of Completion. If under operation phase, date of commissioning(COD) of each unit. Whether the plant was Under shutdown since commissioning, details and reasons. | The existing plant is in operation. The Unit- 1 (685MW) of the power station achieved COD in June 2015 and Unit -2 (685MW) of the power station achieved COD in April 2016. | | | |

| | |
|--|---|
| Break-Up of Land-Use of TPP site: | (Acres / Hectares) Forests land (Type and density): 0 Double Crop agricultural land: 0 Single crop agricultural land: 0 Waste/Barren land: 0 Grazing/Community land: 0 Others (specify): The land is already in possession with APL, Raipur TPP. The total area of the project site 358.15 Ha. (885 Acres) including the existing facility. |
| Fuel to be used: | Coal and Auxiliary Fuel |
| Quantity of Fuel Required per Annum: | Annual Coal requirement for the 2x800 MW units is about 7.89 MTPA, considering Design coal GCV as 3200 kcal/kg. Auxiliary liquid fuels, viz. LDO/HSD requirement per annum: 2500 kilo litres. |
| Coal Linkage / Coal Block: (If Block allotted, status of EC & FC of the Block) | Quantity and details of Linkage: MOU from nearby commercial coal mines. SEL-South Eastern Coal field limited, Raigarh Area MCL- Mahandi Coal field Limited, Korba Available: 7.89 MTPA Name of Block: MOU from nearby commercial coal mines. The method of obtaining remaining coal: (LOA issued on...) Ash content in coal: 41 % (in Design Coal) Sulphur in coal: 0.5 % Moisture: 12.40 (%) GCV in coal: 3200 Kcal/Kg |
| Details of mode of transportation of coal from coal source to the plant premises along with distances. | Coal receipt at Plant shall be through Rail. Distance: 300km |

| | | | |
|---|--|----------------------|----------------------|
| <p>Fly Ash Disposal System proposed:</p> | <p>Fly ash will be collected in dry form for utilization, while bottom ash will be collected in wet form. There would be provision for dry disposal of fly ash from storage silos to closed tankers for utilization in cement industries, abandoned mine filling, road construction, aggregate replacement in concrete, for manufacturing bricks, etc. as per Fly Ash Notification, 31st December'2021 and amendments.</p> <p>Provision would be kept for HCSD disposal of both bottom and fly ash to ash pond in case of exigency. In this case, both bottom ash and fly ash will be disposed through HCSD system to the proposed ash dyke.</p> | | |
| <p>Ash Pond / Dyke: (Area, Location & Coordinates) Average height of area above MSL (m)</p> | <p>Area</p> | <p>150 acres</p> | |
| | | <p>Latitude</p> | <p>Longitude</p> |
| | <p>Fly ash Pond</p> | <p>21°26'36.24"N</p> | <p>81°51'38.21"E</p> |
| | <p>Bottom ash pond 1</p> | <p>21°26'46.08"N</p> | <p>81°51'42.17"E</p> |
| | <p>Bottom ash pond 2</p> | <p>21°26'59.21"N</p> | <p>81°51'43.47"E</p> |
| | <p>Average height</p> | <p>312m</p> | |
| <p>Quantity of Fly Ash to be Generated:</p> | <p>3.064 MTPA</p> | | |
| <p>Quantity of Bottom Ash to be Generated:</p> | <p>0.766 MTPA</p> | | |
| <p>Fly Ash utilisation percentage with details:</p> | <p>Cement Industries, Road Construction, mines filling, aggregates replacement in concrete and manufacturing of bricks (As per Fly ash notification December 2021 and its amendments)</p> | | |
| <p>Stack Height (m) & Type of Flue</p> | <p>120 m & Bi flues with FGD and low NOx/SCR.</p> | | |
| <p>Source of Water:</p> | <p>Existing Samoda Dam at Mahanadi River approx. at 35 km from Plant Site.</p> | | |
| <p>Quantity of water requirement:</p> | <p>4000m³/hr or 36 MCM/year</p> | | |

| Distance of source of water from Plant: | 35 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------------|--|-------------------------------|--|------------------|---------------|------|-----|---------------|------|---|-------------------------------|------|-----|--------------|------|----|--------------|------|----|--------------|------|-----|------------|------|-----|----------------------|------|-----|-------------|------|-----|
| Whether barrage/ weir/ intake well/ jack well/ others proposed: | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mode of conveyance of water: | Existing Pipelines | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Status of water linkage: | WRD permission for the existing water demand of 25 MCM is obtained and the WRD permission for the water demand of proposed expansion will be obtained | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cooling system | Closed recirculating condenser cooling system with Natural Draft Cooling Tower (NDCT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CRZ Clearance | Not Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Names & distance of National parks, Wildlife sanctuaries, Biosphere reserves, Heritage sites Rivers, Tanks, Reserve Forests etc. Located within 10 Km from the plant boundary: | <p>No any National parks, Wildlife sanctuaries, Biosphere reserves, Heritage sites exist within the 10 km radius of the plant. Following Reserve Forest/ Protected Forest Land and water bodies falling within 10 km radius of the plant:</p> <table border="1"> <thead> <tr> <th>Water course/R.F./P.F.</th> <th>Distance (km) w.r.t. plant site</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Jamuniya Nala</td> <td>0.25</td> <td>NNW</td> </tr> <tr> <td>Jamuniya Nadi</td> <td>2.00</td> <td>N</td> </tr> <tr> <td>Bhatapara Brance Distributory</td> <td>2.15</td> <td>WSW</td> </tr> <tr> <td>Pindrao Tank</td> <td>2.75</td> <td>SE</td> </tr> <tr> <td>Kumhari Tank</td> <td>4.30</td> <td>NE</td> </tr> <tr> <td>Khauna Minor</td> <td>4.35</td> <td>WSW</td> </tr> <tr> <td>Kirna Tank</td> <td>5.00</td> <td>WNW</td> </tr> <tr> <td>Sillari Distributory</td> <td>5.45</td> <td>WSW</td> </tr> <tr> <td>Dhumma Nala</td> <td>7.00</td> <td>WNW</td> </tr> </tbody> </table> | | | Water course/R.F./P.F. | Distance (km) w.r.t. plant site | Direction | Jamuniya Nala | 0.25 | NNW | Jamuniya Nadi | 2.00 | N | Bhatapara Brance Distributory | 2.15 | WSW | Pindrao Tank | 2.75 | SE | Kumhari Tank | 4.30 | NE | Khauna Minor | 4.35 | WSW | Kirna Tank | 5.00 | WNW | Sillari Distributory | 5.45 | WSW | Dhumma Nala | 7.00 | WNW |
| Water course/R.F./P.F. | Distance (km) w.r.t. plant site | Direction | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jamuniya Nala | 0.25 | NNW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jamuniya Nadi | 2.00 | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bhatapara Brance Distributory | 2.15 | WSW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pindrao Tank | 2.75 | SE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kumhari Tank | 4.30 | NE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Khauna Minor | 4.35 | WSW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kirna Tank | 5.00 | WNW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sillari Distributory | 5.45 | WSW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dhumma Nala | 7.00 | WNW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|--------------------|------------------------|------------------------|----------------|
| | Patthra Nala | 7.10 | SW | | |
| | Banjari Nala | 8.00 | NNE | | |
| | Pikndih Minor | 8.20 | S | | |
| | Baloda Branch | 9.90 | ESE | | |
| | Mahanadi Mani Canal | 10.20 | SE | | |
| | Mohrenga P.F | adjacent | East | | |
| | Khaulidabri P.F | 2.9 | ESE | | |
| Any litigation/Court case pertaining to the project: | There are no litigation/Court cases pertaining to proposed project except few cases as regulatory & non-regulatory on utilities like Transmission, Rail, Mines etc. | | | | |
| Cost of the Project (As per EC and revised): Cost of the proposed activity in the amendment: | Project Cost as per EC (dated 19.05.2011): 8290.0 Crore Actual cost of present configuration: 8290.0 Crore Project Cost of expansion: 13,600 Crore | | | | |
| Employment Potential for entire project/plant and employment potential for the proposed amendment (specify number of persons and quantitative information). | Particular | Phase | Existing (Nos.) | Proposed (Nos.) | Total |
| | Manpower | Construction Phase | Permanent: 0 | Permanent: 276 | Permanent: 276 |
| | | | Contract: 0 | Contract: 1200 | Contract: 1200 |
| | | Operation Phase | Permanent: 238 | Permanent: 276 | Permanent: 514 |
| | | | Contract: 250 | Contract: 250 | Contract: 500 |
| Total | | 488 | 2002 | 2490 | |