सत्यमेव जयते

Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(Thermal Projects)
***

Minutes of AGENDA FOR 35TH MEETING OF THE EXPERT APPRAISAL COM MITTEE (EAC) (THERMAL POWER PROJECTS) TO BE HELD ON 24TH DECEM BER, 2025 DURING 10:30 – 17.00 HRS THROUGH PHYSICAL MODE. meetin g Thermal Projects held from 24/12/2025 to 24/12/2025 **Date:** 02/01/2026

MoM ID: EC/MOM/EAC/353896/12/2025

Agenda ID: EC/AGENDA/EAC/353896/12/2025

Meeting Venue: Narmada Hall MoEF&CC

Meeting Mode: Physical

Date & Time:

24/12/2025	10:30 AM	05:30 PM

1. Opening remarks

24th December, 2025 [Wednesday]

At the outset, Shri. Inder Pal Singh Matharu (I.F.S Retd.), Chairman, Expert Appraisal Committee (Thermal Power & Coal Mining) welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of EAC members who participated in the meeting is at **Annexure – I**.

[The Original PDF of the MoM is attached at page no. 60-111]

2. Confirmation of the minutes of previous meeting

Confirmation of the Minutes of the 34th Meeting of the EAC (Thermal): The minutes of the 34th Meeting of the EAC (Thermal) held on 9th Decemberber, 2025 has been confirmed by the EAC as uploaded on PARIVESH.

3. Details of proposals considered by the committee

Day 1 -24/12/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Ongoing 2x660 MW Udangudi Supercritical Thermal Power Project Stage-1 at Udangudi Village, Tiruchendur Taluk, Tuticorin District, Tamil Nadu by **TAMIL NADU POWER GENERATION CORPORATION LIMITED** located at **TUTICORIN,TAMIL NADU**			
Proposal For		Fresh EC	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/TN/THE/557542/2025	J-13012/19/2008-IA.II(T)	08/11/2025	Thermal Power Plants Coal/Lignite based plants (1(d))

3.1.2. Project Salient Features

Agenda item no. 35.1

35.1: 2x660 MW Udangudi Supercritical Thermal Power Project (Stage-1) by **M/s Tamil Nadu Power Generation Corporation Ltd (TNPGCL)** at Udangudi Village, Tiruchendur Taluk, Tuticorin District, Tamil Nadu - **Environmental Clearance (EC) under S.O. 1247 (E) dated 18/03/2021 – regarding**
[Proposal No: IA/TN/THE/557542/2025; F. No. J-13012/19/2008-IA.II(T)]

35.1.1: M/s. Tamil Nadu Power Generation Corporation Limited (TNPGCL) has made an online application vide proposal no. IA/TN/THE/557542/2025 dated 08.11.2025 along with copy of EIA/EMP report, Form and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 appraised at Central Level.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting are given as under:

35.1.2: The project site mentioned above have obtained following Environmental Clearances from MoEF&CC:

a. Thermal Power Plant

· MoEF&CC accorded EC to TANGEDCO on 14/10/2013 for setting up of 2x800 MW Udangadi Super Critical Imported Coal Based TPP at village Udangudi, in Thiruchendur Taluk, in Thoothukudi district, in Tamil Nadu. Subsequently, EC was amended on 26/07/2017 for reduction of unit sizes from 2 x 800 MW to 2 x 660 MW. Thereafter, validity extension of EC was accorded on 25/09/2020 till 13/10/2023.

· As per amendment to the EIA Notification, 2006 dated 18/01/2021, the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19). In view of this, validity of the above EC was till 13/10/2024.

· Implementation status of the above project was only 82.85 % and the project was not commissioned within the validity period of the EC.

· Proponent has obtained fresh Terms of Reference for the above project vide proposal no. IA/TN/THE/468592/2024 dated 29/07/2024 with change of fuel mix i.e**., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion.**

· Instant proposal is for seeking fresh Environmental Clearance for 2x660 MW to complete the commissioning of the constructed facilities as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 which states that "where construction and commissioning of proposed activities have not been completed within the validity period of the Environmental Clearance (EC) and a fresh application for EC has been submitted due to expiry of the said period of the EC, the concerned Expert Appraisal Committee or State Level Expert Committee, as the case may be, may exempt the requirement of public hearing subject to the condition that the project has been implemented not less than fifty percentage in its physical form or construction".

· CRZ clearance is not applicable for Main plant side as submitted by the proponent.

b. Interlinked project

· Interlinked project of Coal Jetty, Pipe Conveyor, Cooling water intake and outfall systems had separate EC + CRZ Clearance MoEF&CC vide EC ID - EC22A004TN156490, and File No. 10-66/2020 -IA.III dated 03.08.2022.

35.1.3: Status of Certified Compliance Report: The Status of compliance of earlier EC for the TPP was obtained from Regional Office, Chennai vide letter no. F. No. EP/12.1/8/2013-2014/TN/518, dated 01.04.2025 in the name of M/s. Tamil Nadu Generation and Distribution Corporation (TANGEDCO). The Action taken report regarding the partially/non-complied conditions was submitted to Regional Office, MoEF&CC, Chennai vide letter no. F. No. Ep/12.1/8/2013-2014/TN/16 dated 07.01.2025 MoEF&CC (RO), Chennai evaluated the same and has issued letter dated 01.04.2025. The details of the observations made by RO in the report dated 01.04.2025 along with its re-assessment / present status as furnished by the PP is given as below.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1.	Degenerated mangrove located in the study area (if any) shall be adopted and regenerated in consultation with the concerned Dept. of the State Government.	The project proponent has consented to engage with the state forest department regarding the adaptation of the mangrove area	14.10.2013	Specific condition (xxiii)	-	The project is located along the seashore, with the nearest mangrove area identified at a distance of 8.12 km. As per the communication from the Tamil Nadu Forest Department Ref: C.No. D/1761/2025 dated 22.05.2025), there is no suitable area within the project site for undertaking mangrove plantation activities. Therefore, mangrove plantation is proposed

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						in the backwater canal area located on the northern side of the Tiruchendur Subramania Swamy Temple, with the objective of enhancing coastal ecology and contributing to sustainable environmental management. The mangrove management plan is submitted.
2.	Continuous monitoring of marine biology during Construction and operational period of power plant shall be undertaken by an institute of repute like Faculty of Marine Sciences, Annamalai University. In addition, monitoring of surface water quality in the vicinity of the power plant in and around 3.0 kms radius shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of groundwater and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Continuous monitoring of marine biology, as required, has not been conducted	14.10.2013	Specific condition (xxiii)		Continuous monitoring of marine biology is being conducted by the Fisheries college and Research Institute, Tuticorin. Samples were collected on 25.07.2025 and the report is submitted.
3	An Environmental Cell comprising of at least one expert in Marine biologist and an ecologist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	At present, a marine biologist and an ecologist have not been incorporated into the environmental cell.	14.10.2013	Specific condition (xxiv)	-	At present Fisheries college and Research Institute, Tuticorin is engaged for carrying out the marine monitoring work. EM Cell with expert in Marine biologist and ecologist will be formed once the power plant starts.
4	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of t	The project proponent (PP) did not submit the	14.1		General	It is planned to establish 2 x 660 MW each as stage- II & stage-III as expa

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	he Ministry within six months.	vision document that outlines the prospective development plan for the site.	0.2013		condition (i)	nsion project. The vision document is submitted.
5	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	There were no supporting documents provided by PP concerning the advertisements placed in the local newspapers.	14.10.2013		General condition (xi)	Notice for issuance of EC was published in two local newspapers (Tamil & English) copies is submitted.
6	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM2.5 & PM10), SO2, Nox (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	It has been noted that a copy of the Environmental Clearance (EC) is not made available on the TANGEDCO website.	14.10.2013		General condition (xiii)	The website is opened and the clearances are uploaded. Since the plant is not operation. Online continuous monitoring system are not initiated. However, six months compliance report are submitted Environmental Clearances (Main Plant and Coal Jetty) are available in www.tnpdcl.org
7	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance condi	Form-V as is mandated has not been submitted by the project proponent	14.10.2013	-	General condition (xiv)	Six months compliance report prepared and submitted. Form-V will be submitted after commissioning of the project.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	tions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.					
Partial compliances						
1	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	The project proponent did not submit the required six-monthly reports on the implementation status of the prescribed environmental safeguards to the Ministry of Environment and Forests, its Regional Office, MoEF& CC periodically	14.10.2013		General condition (xv)	Six months compliance report are uploaded in MoEF website and hard copies sent to RO/MoEF and TNPCB. The latest copy of six months report for the period from April to September 2025 is submitted.
2	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six-monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Environmental Clearance (EC) is not made available on the TANGEDCO website. Additionally, monitoring data was not displayed at the company's main entrance.	14.10.2013		General condition (xvi)	The website is opened and the clearances are uploaded. EC Clearance (Main plant & Coal Jetty) are available in www.tnpdcl.org permanent Air monitoring system location are finalized in consultation with Pollution Control Board and work under progress.
3	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection meas	The annual expenditures have not been communicated to the Ministry	14.10.20		General condition	Fund allotted for Environmental Protection measures has not been diverted to other works. The annual report of the environmental protection w

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	ures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.		13		n (xvii)	ill be submitted in future.

35.1.4: Status of FGD installation

In addition to the above, status of installation of Flue Gas Desulphurization shall be furnished as per the MoEF&CC Notification dated 11/07/2025:

i. Categorization details of TPP : **Category –C**

ii. Sulphur content of the coal to be fired in the boiler: a. Imported coal Sulphur content – 0.52%;
b. Domestic coal Sulphur content – 0.31%

iii. Status of FGD installation for existing unit – Not applicable

iv. Action plan for installation of new stack in compliance to the notification number GSR 742 (E) dated the 30/08/1990 for the project: One bi-flue stack of 275 m shall be installed for 2 x 660 MW plant.

35.1.5: The details of the ToR is furnished as below:

Proposal no. with date	Consideration	Details	Date of accord	ToR Validity
IA/TN/THE/468592/2024 dated 08.04.2024	11th meeting of EAC – Thermal held on 27-28th June 2024	Terms of Reference	29.7.2024	4 years
IA/TN/THE/541675/2025 dated 04.07.2025	-	Application for Transfer of ToR - Form-8	26.07.2025	-

35.1.6: Environmental Site Settings

Sl. No.	Particulars	Details	Remarks
1.	Total land	380 ha [Government land: 380 ha]	Land use: Industrial
2.	Land use break up	S. No. / Purpose / Area in Ha 1 / Main Plant, Transformer yard and Switch yard / 26.305 2 / Coal Yard / 26.305	

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>3</td><td>Cooling Water System</td><td>17.402</td></tr>
<tr><td>4</td><td>Fuel oil system</td><td>1.699</td></tr>
<tr><td>5</td><td>Water system including Chlorination system</td><td>7.782</td></tr>
<tr><td>6</td><td>Ash Dyke</td><td>48.562</td></tr>
<tr><td>7</td><td>Administration building and other non-plant buildings</td><td>4.719</td></tr>
<tr><td>8</td><td>Miscellaneous such as Corridor for CW piping, Ash piping, Intake & outfall, Silo & its utility building, Workshop, Stores, Roads etc.</td><td>80.168</td></tr>
<tr><td>9</td><td>Green Belt</td><td>167.058 (about 44% of total area)</td></tr>
<tr><td colspan="2">Total</td><td>380</td></tr>
</table>
</td><td></td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014 & 19/02/2025</td><td>Entire land is under the possession of the project proponent.</td><td>Land document submitted with application.</td></tr>
<tr><td>4.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: Nil
Study Area:
<table>
<tr><th>S.No.</th><th>Name</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td colspan="4">Habitation</td></tr>
<tr><td>1.</td><td>Udangudi village</td><td>4.85</td><td>West</td></tr>
<tr><td>2.</td><td>Kallamoli</td><td>0.54</td><td>East</td></tr>
<tr><td>3.</td><td>Kulasekharapatnam</td><td>2.20</td><td>South</td></tr>
<tr><td>4.</td><td>Nainarpathu</td><td>2.02</td><td>NW</td></tr>
<tr><td>5.</td><td>Shirgaj/Sirkatchi</td><td>2.02</td><td>NNW</td></tr>
<tr><td>6.</td><td>Arnaghudi</td><td>1.84</td><td>West</td></tr>
<tr><td>7.</td><td>Manapad</td><td>4.79</td><td>SSE</td></tr>
<tr><td>8.</td><td>Vellalanvilai</td><td>3.7</td><td>NW</td></tr>
<tr><td>9.</td><td>Paramankurichi</td><td>5.17</td><td>NW</td></tr>
</table>
</td><td>R & R is not applicable</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>10.</td><td>Soosaikudiyruppu</td><td>3.56</td><td>NE</td></tr>
<tr><td>11.</td><td>Tiruchendur(Town panchayat)</td><td>7.72</td><td>NE</td></tr>
<tr><td>12.</td><td>Virapandianpattinam</td><td>9.01</td><td>NNE</td></tr>
<tr><td>13.</td><td>Venkatramanujapuram</td><td>6.2</td><td>WNW</td></tr>
<tr><td>14.</td><td>Megnarpuram</td><td>8.47</td><td>NW</td></tr>
</table>
</td><td></td></tr>
<tr><td>5.</td><td>Existence of school and hospitals if any.</td><td>
Study area:
<table>
<tr><td colspan="4">Schools</td></tr>
<tr><td>1.</td><td>T.D.T.A Higher Secondary School</td><td>2.78</td><td>West</td></tr>
<tr><td>2.</td><td>Sri Ramakrishna Chidambareswarar Higher Secondary School</td><td>3.81</td><td>West</td></tr>
<tr><td>3.</td><td>Salma Matriculation school</td><td>2.78</td><td>West Northwest</td></tr>
<tr><td colspan="4">Hospitals</td></tr>
<tr><td>1.</td><td>Sreedhar hospital</td><td>2.03</td><td>West</td></tr>
<tr><td>2.</td><td>Udangudi Government hospital</td><td>2.02</td><td>West</td></tr>
<tr><td>3.</td><td>Government hospital, Kulasekharapatnam</td><td>2.07</td><td>South</td></tr>
</table>
</td><td></td></tr>
<tr><td>6.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>8°26'59.90"N</td><td>78° 4'12.87"E</td></tr>
<tr><td>2.</td><td>8°26'53.09"N</td><td>78° 4'18.22"E</td></tr>
<tr><td>3.</td><td>8°26'52.58"N</td><td>78° 4'18.77"E</td></tr>
<tr><td>4.</td><td>8°26'55.36"N</td><td>78° 4'22.12"E</td></tr>
<tr><td>5.</td><td>8°26'52.11"N</td><td>78° 4'24.36"E</td></tr>
<tr><td>6.</td><td>8°26'48.96"N</td><td>78° 4'21.30"E</td></tr>
<tr><td>7.</td><td>8°26'37.67"N</td><td>78° 4'16.35"E</td></tr>
<tr><td>8.</td><td>8°26'37.46"N</td><td>78° 4'16.46"E</td></tr>
<tr><td>9.</td><td>8°26'35.08"N</td><td>78° 4'22.09"E</td></tr>
<tr><td>10.</td><td>8°26'32.63"N</td><td>78° 4'20.31"E</td></tr>
<tr><td>11.</td><td>8°26'32.25"N</td><td>78° 4'19.90"E</td></tr>
<tr><td>12.</td><td>8°26'31.08"N</td><td>78° 4'19.09"E</td></tr>
<tr><td>13.</td><td>8°26'30.52"N</td><td>78° 4'17.63"E</td></tr>
<tr><td>14.</td><td>8°26'29.76"N</td><td>78° 4'16.39"E</td></tr>
<tr><td>15.</td><td>8°26'29.31"N</td><td>78° 4'16.01"E</td></tr>
<tr><td>16.</td><td>8°26'28.80"N</td><td>78° 4'15.89"E</td></tr>
<tr><td>17.</td><td>8°26'28.16"N</td><td>78° 4'15.98"E</td></tr>
<tr><td>18.</td><td>8°26'27.46"N</td><td>78° 4'15.38"E</td></tr>
<tr><td>19.</td><td>8°26'28.98"N</td><td>78° 4'12.89"E</td></tr>
<tr><td>20.</td><td>8°26'26.35"N</td><td>78° 4'11.97"E</td></tr>
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Sl. No.	Particulars	Details			Remarks
		21.	8°26'22.88"N	78° 4'9.42"E	
		22.	8°26'20.47"N	78° 4'6.63"E	
		23.	8°26'10.87"N	78° 3'59.69"E	
		24.	8°26'13.79"N	78° 3'58.01"E	
		25.	8°26'12.56"N	78° 3'56.93"E	
		26.	8°26'10.69"N	78° 3'58.39"E	
		27.	8°26'6.42"N	78° 3'58.25"E	
		28.	8°26'3.97"N	78° 3'57.17"E	
		29.	8°26'3.42"N	78° 3'58.42"E	
		30.	8°25'59.62"N	78° 3'56.37"E	
		31.	8°25'56.43"N	78° 3'52.08"E	
		32.	8°25'57.57"N	78° 3'50.03"E	
		33.	8°25'53.02"N	78° 3'46.93"E	
		34.	8°25'49.25"N	78° 3'44.78"E	
		35.	8°25'47.69"N	78° 3'47.18"E	
		36.	8°25'41.67"N	78° 3'43.31"E	
		37.	8°25'41.37"N	78° 3'40.99"E	
		38.	8°25'36.76"N	78° 3'35.18"E	
		39.	8°25'21.33"N	78° 3'30.30"E	
		40.	8°25'17.80"N	78° 3'28.57"E	
		41.	8°25'13.18"N	78° 3'25.38"E	
		42.	8°25'12.93"N	78° 3'22.76"E	
		43.	8°25'12.25"N	78° 3'19.78"E	
		44.	8°25'11.13"N	78° 3'16.82"E	
		45.	8°25'9.67"N	78° 3'14.23"E	
		46.	8°25'10.22"N	78° 3'12.54"E	
		47.	8°25'10.18"N	78° 3'11.14"E	
		48.	8°25'10.08"N	78° 3'10.99"E	
		49.	8°25'9.49"N	78° 3'10.71"E	
		50.	8°25'9.39"N	78° 3'10.59"E	
		51.	8°25'10.37"N	78° 3'8.26"E	
		52.	8°25'10.17"N	78° 3'6.53"E	
		53.	8°25'10.74"N	78° 3'6.81"E	
		54.	8°25'10.88"N	78° 3'6.81"E	
		55.	8°25'11.53"N	78° 3'2.39"E	
		56.	8°25'11.63"N	78° 3'2.29"E	
		57.	8°25'14.17"N	78° 3'5.11"E	
		58.	8°25'14.33"N	78° 3'5.16"E	
		59.	8°25'15.36"N	78° 3'2.40"E	
		60.	8°25'15.60"N	78° 3'1.96"E	
		61.	8°25'15.85"N	78° 3'1.68"E	
		62.	8°25'16.51"N	78° 3'2.00"E	

Sl. No.	Particulars	Details	Remarks
		63. 8°25'20.77"N 78° 3'3.27"E 64. 8°25'28.83"N 78° 3'5.07"E 65. 8°25'29.29"N 78° 3'4.84"E 66. 8°25'30.02"N 78° 3'3.51"E 67. 8°25'32.25"N 78° 3'3.90"E 68. 8°25'35.47"N 78° 3'5.40"E 69. 8°25'37.21"N 78° 3'5.87"E 70. 8°25'42.21"N 78° 3'6.22"E 71. 8°25'42.98"N 78° 3'5.73"E 72. 8°25'45.70"N 78° 3'5.89"E 73. 8°25'47.49"N 78° 3'6.35"E 74. 8°25'47.95"N 78° 3'5.91"E 75. 8°25'47.24"N 78° 3'3.22"E 76. 8°25'47.30"N 78° 3'2.99"E 77. 8°25'49.66"N 78° 3'3.94"E 78. 8°25'52.75"N 78° 3'5.69"E 79. 8°25'54.98"N 78° 3'6.34"E 80. 8°26'6.32"N 78° 3'12.20"E 81. 8°26'21.70"N 78° 3'25.87"E 82. 8°26'29.20"N 78° 3'31.36"E 83. 8°26'38.48"N 78° 3'39.88"E 84. 8°26'40.81"N 78° 3'43.25"E 85. 8°26'41.36"N 78° 3'45.80"E 86. 8°26'48.35"N 78° 3'58.46"E 87. 8°26'26.13"N 78° 4'16.57"E 88. 8°26'35.30"N 78° 4'23.46"E 89. 8°26'18.59"N 78° 4'43.64"E 90. 8°26'9.35"N 78° 4'35.64"E	
7.	Elevation of the project site	2 – 10 m above mean sea level	
8.	Involvement of Forest land if any.	Status of stage I Forest Clearance: **Not applicable** Area of the forest land involved: **Nil**	
9.	Water b	**Project site:**	HFL data of Karu

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>ody (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Name – Ellapanaickan surplus course channel adjacent to the project site. A copy of Public Work Department NOC is submitted.
Study area:<table><tr><th>Waterbody</th><th>Distance</th><th>Direction</th></tr><tr><td>Karumeni river</td><td>3.75 km</td><td>South</td></tr><tr><td>Thangai kulam</td><td>6.08 km</td><td>West</td></tr><tr><td>Ellapanaickan kulam</td><td>4 km</td><td>North</td></tr><tr><td>Avudayarkulam</td><td>7 km</td><td>Northeast</td></tr><tr><td>Kulasai kulam</td><td>1.66 km</td><td>South</td></tr></table></td><td>meni river is +3.5 m. A copy of letter is submitted.</td></tr>
<tr><td>10.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td><u>Study area – Nil</u>
<u>List of Reserved and protected forests:</u>
Kuthiraimozhi Theri R.F – 7.8 km (NW)
In addition to the above following is present within the study area:
Mangroves – 8.12 km (NE),
Sand dunes – 0.5 km (E)</td><td></td></tr>
<tr><td>1</td><td>Archaeo</td><td>There is no ASI site within the study area. However, th</td><td></td></tr>
</table>

Sl. No.	Particulars	Details	Remarks
1.	logical sites monuments/ historical temples etc.	ere is Tiruchendur temple located at a distance of 8.1 km in NE direction.	
12.	Facility envisaged in CRZ area (Only for coastal power plant)	Name of the facility in CRZ area **Coal jetty, Sea water intake and outfall pipeline** Recommendations of CZMA **Obtained** Status of CRZ clearance EC and CRZ clearance obtained from MoEF&CC vide Lr. No. - EC22A004TN156490, 10-66/2020-IA.III dt. 03.08.2022.	CRZ map indicating HTL/LTL demarcated by the authorized agency in 1:4000 scale has been submitted.
13.	Involvement of Critically Polluted Area / Severely Polluted area as per 2018 CEPI score	Nil within 10 km radius	

35.1.7: The unit configuration and capacity of existing and proposed project is given as below

S. No.	Existing power plant configuration and capacity	Proposed power plant configuration and capacity	Total	Technology adopted
1.	-	2 x 660 MW	1320 MW	Super critical

35.1.8: The details of the fuel (coal) requirement for the proposed project/ expansion cum proposed project along with its source and mode of transportation is given as below:

Details	Fuel requiremen	Source	Distance from site (k	Mode of transportatio	Coal characteristics	Linkage documen

	t		m)	n		t
Proposed TPP	5893000 MT	Import & Indigenous	1.2	Pipe conveyor	Ash - (Imported coal: 8.09% and Domestic coal:43.5%) Sulphur – (Imported coal-0.52% and Domestic coal-0.31%) Moisture (16.25%) GCV – 4350 Kcal/Kg	-

35.1.9: The water requirement for the proposed project is estimated as 2,81,808 m^3 /day, out of which 87,168 m^3/day of fresh water requirement will be drawn from desalination plant and the remaining 1,94,640m^3 /day will be met from the sea. The water will be transported to the plant site through pipeline. Desalination Plant Capacity is 16 MLD.

35.1.10: The power requirement for the proposed project is estimated as 92 MW, which will be sourced from plant itself.

35.1.11: Baseline Environmental Studies

Period	March – May 2024	Additional study (if any)
AAQ parameters at 8 Locations (min and max)	$PM_{2.5}$ = 16 To 27 μg/m^3 PM_{10} = 33 To 58 μg/m^3 SO_2 = BDL (<5) to 8.9 μg/m^3 NO_x = 10.4 To 17.7 μg/m^3 CO = BDL (<0.1) to 0.28 mg/m^3	
Incremental GLC Level	PM_{10} = 2.01 μg/m^3 SO_2 = 6.7 μg/m^3 NO_x = 6.541 μg/m^3	
Ground water quality at 18 locations	pH: 6.84 to 8.02, Total Hardness: 248 to 9100 mg/l, Chlorides: 118 to 7998 mg/l, Fluoride: 0.22 to 0.47 mg/l. Heavy metals are Below Detection Limit (BDL)	
Surface water quality at 3 locations	pH: 7.42 to 7.84; DO: 4.8 to 5.9 mg/l and BOD: BDL (<2) to 2.6 mg/l. COD from 16 to 23 mg/l.	
Effluent generation details and its treatment	Effluent generation from TPP – 720 KLD Mode of treatment & reuse Effluent generation from Transformer yard, TG hall, floor wash, fuel oil and coal handling area of about 720 KLD will be transferred/ collected/ treated in the Effluent Treatment plant of capacity 720 KLD and reused for horticulture. Domestic wastewater generation – 24.5 KLD Mode of treatment & reuse Quantity of sewage generated during operatio	

<table>
<tr><th>Period</th><th>March – May 2024</th><th>Additional study (if any)</th></tr>
<tr><td></td><td>nal phase will be 24.5KLD which will be treate d through sequential batch reactor (SBR) base d Sewage Treatment Plant of capacity 40 KLD. Treated wastewater from STP will be reused f or horticulture.</td><td></td></tr>
<tr><td>Noise levels L eq
(Day and Nigh t)</td><td>47.5 to 53.7 dBA for the day time and 40.8 to 44.5 dBA for the Night time.</td><td></td></tr>
<tr><td>Traffic assess ment
study findings</td><td>Traffic study has been conducted at SH 176 (Tuticorin - Tiruchendur - Kanyakumari Road) which is approximately 0.12 km (E) from the p lant site.
Transportation of raw material will be done 1 5% by road.
Existing PCU is 901.6 PCU/hr on SH 176 and e xisting level of service (LOS) is:
<table>
<tr><th>Roa d</th><th>V (Volum e in PC U/hr.)</th><th>C (Capacit y in PC U/hr.)</th><th>Existin g V/C R atio</th><th>LO S</th></tr>
<tr><td>SH-176</td><td>901.6</td><td>1500</td><td>0.60</td><td>A</td></tr>
</table>
PCU load after proposed project will be 901.6 (Existing) + 24.9 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Roa d</th><th>V (Volum e in PC U/hr.)</th><th>C (Capacit y in PC U/hr.)</th><th>Existin g V/C R atio</th><th>LO S</th></tr>
<tr><td>SH-176</td><td>926.5</td><td>1500</td><td>0.61</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC-106-1990 Guide li ne for capacity for roads. (Only for road trans port)
Conclusion: The level of service will High, stab le flow (B) after including additional traffic du e to proposed project.</td><td></td></tr>
<tr><td>Soil Quality at 8 Locations</td><td>Bulk density: 1.38 to 1.57 gm/cc; pH range 7. 33 to 7.84; Electrical conductivity (EC); 0.097 to 0.214 mS/cm; calcium content: 14.8 to 19 m.eq/100g; sodium: 1.08 to 1.84 m.eq /100g; potassium: 258 to 391 kg/ha; Nitrogen: 45 to</td><td></td></tr>
</table>

Period	March – May 2024	Additional study (if any)
	94 kg/ha; Phosphorous: 21.1 to 46.9 kg/ha; Cation Exchange Capacity (CEC) for Ca: 14.8 to 19 meq/100gm; Magnesium: 4.89 to 6.87 m.eq/100g; Sulphur: 14 to 34 mg/kg; Organic Matter: 0.51 to 0.91%	
Flora and fauna	List of schedule I fauna and endangered Flora if any. If yes, status of site-specific wildlife conservation plan.	The DFO accepted the conservation plan and forwarded the same to the Principal Chief Conservator of Forests & Chief Wild life Warden/ Chennai through the Conservator of Forests and field Director/Tirunelveli and the copy of letter is included in EIA/EMP report.
Hydrogeology study	Ground water is available in phreatic aquifers in the study area of 10 km radius and in general is colourless, odourless and slightly alkaline. The conductivity ranges from 994 to 1917 µS/cm and major parts are having multilayer aquifers system. Hence, the water quality varies with respect to depth of tapping. This observed that most of the groundwater suitable for drinking except groundwater collected interface line.	Hydrological report is included in EIA/EMP report.
Impact study on bio-diversity and aquatic ecology	Recommendations of study report:	The detailed study for Impact on bio-diversity and aquatic ecology was carried out and included in EIA/EMP report.
Risk assessment Study	Recommendations of Risk assessment report with mitigation measures	Risk Assessment study was carried out and included in EIA/EMP report.
Marine impact assessment study (Only for coastal based TPPs)	The study report on marine diversity/ecology is assigned to Fisheries College and Research Institute, Tuticorin and included in EIA/EMP report.	

35.1.12: The details of solid and hazardous waste generation along with its mode of

treatment/disposal is furnished as below:

Sr. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment	Disposal
1.	Solid waste	Annual Ash generation (2 x 660 MW)	1.31 million TPA	-	Slurry disposal
2.	Solid waste	Annual Bottom ash generation (2 x 660 MW)	0.26 million TPA	-	Slurry disposal
3.	Solid waste	Annual Fly ash generation (2 x 660 MW)	1.054 million TPA	-	Ash is transported in a pneumatic pressure conveying system to fly ash silo from ESP hoppers
4.	Domestic Solid waste	Bio-degradable waste	15.914 TPA	Organic Waste Convertor	Disposed through Udangudi town panchayat
5.	Domestic Solid waste	Non bio degradable waste	23.871 TPA	-	Disposed through Udangudi town panchayat
6.	Domestic Solid waste	Sludge from STP	1.29 TPA	-	Manure for green belt
7.	Solid waste	ETP Sludge	206 TPA	-	TSDF site
Hazardous waste					
8.	Glass Wool	Overhauling	1 TPA	-	TSDF site
9.	Resin	DM plant	2 TPA	-	TSDF site
10.	Waste oil	Maintenance	1.6 TPA	-	TSDF site

35.1.13: Public consultation: The project is exempted from conducting fresh public hearing as

per provisions of the MoEF&CC Notification S. O. 1247(E) dated 18 March 2021. However, public consultation through written responses have been prescribed. Public Consultation (Written submission only) conducted by TNPCB by widely publicizing the draft EIA/EMP report/Summary on the TNPCB website on 2.01.2025 and TNPCB communicated to MoEF&CC, New Delhi statin that no views in writing had been received by them.

Action plan as per MoEF&CC O.M. dated 30/09/2020

Action plan with budgetary allocation

Sl.No.	Key area Identified under Socio-EMP (CER) based on issue raised during Base Assessment Survey	Time bound (Year wise) Expenditure (Rs. in Crore)			Budget
		FY 2024-25	FY 2025-26	FY 2026-27	
A	Education in Government Schools in nearby villages	3.64	3.64	3.64	10.925
B	Health in Government hospitals in nearby villages	0.5	0.5	1	2
C	Solar power to nearby villages	2	2	1	5
D	Provisions OM No. 22-65/2017-IA.III dated 30.09.2020 for public hearing related issues including Fisherman welfare fund	-	-	-	3.92
Total budget		6.14	6.14	5.64	**21.845**

35.1.14: Cost of the project: The capital cost of the proposed project is Rs. 13076.705 Crore and the capital cost for environmental protection measures is proposed as Rs. 993.17 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 61.61 Crore. The employment generation from the proposed project / expansion is 545. The details of cost for environmental protection measures is as follows:

Sl. No	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost (Rs. in Crores)	Recurring Cost (Rs. in Crores)
1	Air i) ESP ii) Dust Suppression system for coal handling area iii) Dry fog system	60.00 3.00 1.0 0.5 442.00	12.00 0.60 0.2 0.2 8.84

Sl. No	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost (Rs. in Crores)	Recurring Cost (Rs. in Crores)
	iv) Crushing and Transfer tower areas v) Boiler modification for Low NO_x Burner		
2	RCC Chimney	60.00	6.00
3	Cooling towers	60.00	6.00
4	Bottom ash and fly ash collection, storage and disposal system	160.00	16.00
5	ETP & STP	3.00	0.30
6	Greenbelt development	4.17	0.42
7	Pollution monitoring instrument / equipment	3.00	0.20
8	Outfall arrangements	120	2
9	Energy conservation measures (Solar panel)	3.6	0.5
10	Solid waste management (including OWC)	0.2	0.05
11	Others (Socioeconomic development) i. Occupational health & services (for establishment of PHC at site) ii. Public consultation issues	37.00 2.00	7.30 1
12	PH/Consultation issues (CER) amount	32.694	-
13	Conservation plan for Schedule-I species	0.40	-
14	Mangrove management plan	0.25	-
15	Sand dune management plan	0.35	-
	Total	**993.17**	**61.61**

35.1.15: Green belt development: Proposed greenbelt will be developed in 167.058 ha which is about 44% of the total project area. Thus, total of 167.058 ha area (44% of total project area) will be developed as greenbelt. A 3 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,34,116

saplings will be planted and nurtured in 167.058 hectares in 5 years.

35.1.16: Ash management

Details	Annual generation (MTPA)	Utilization (MTPA)	% of utilization	Balance quantity (MTPA)	No. of storage silos with capacity
Ash (Fly & Bottom)	1.31	1.31	100	-	4

Ash Pond details:

S.No.	Details of Ash Pond	Ash pond
1.	Area (Ha)	48.562
2.	Dyke height (m)	5
3.	Volume (m^3)	1760382.5
4.	Quantity of ash to be disposed (Metric Tons/Annum)	1.31
5.	Expected life of ash pond (number of years and months)	6 years 2 months
6.	Type lining carried in ash pond: HDPE lining of LDPE lining or clay lining or No lining	HDPE lining
7.	Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	MoEF&CC norms for fly ash utilization is followed. 100% dry fly ash will be utilized from 4^{th} year onwards and not be dumped in Ash Pond. Common ash slurry pumps will be provided for bottom and eco ash of two units. (2W+1S) will be provided for two units. Ash slurry will be discharged into common channel of ash slurry sumps from where it will be disposed to Ash Pond by means of slurry pumps and associated piping.
8.	Ratio of ash: water in slurry mix:	1:5
9.	Ash water recycling system (AWRS): Yes or No	Yes
10.	Quantity of wastewater from ash pond to be discharged into land or water body (m^3)	15,314.4 m^3/day of ash water recovery will be recirculated into ash water pump house.
11.	Details regarding dyke stability study a	Stability study was carried out by M/s. B

S.No.	Details of Ash Pond	Ash pond
	nd name of the organization who cond ucted the study:	harat Heavy Electricals Limited (BHEL)

Ash utilization plan: The ash management of TNPGCL for all plants is covered under E-auction. The same facilities will be extended to the proposed power plant.

35.1.17: Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration shall be furnished

A. Summary of court cases: No court cases are filed against M/s. TNPGCL

B. Summary of show cause notices: No show-cause notice are issued against M/s. TNPGCL

C. Summary of violation: There is no any violation case pertaining to the project under the Environment Protection Act, 1986; Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980; the Wildlife (Protection) Act, 1972.

3.1.3. Deliberations by the committee in previous meetings

N/A

3.1.4. Deliberations by the EAC in current meetings

Observations and deliberation of the EAC

35.1.18: The Committee observed and noted the following:

i. Instant proposal is for seeking fresh Environment Clearance for 2x660 MW to complete the commissioning of the constructed facilities as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 with change of fuel mix i.e., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion.

ii. The proposed project was earlier accorded EC vide letter dated14/10/2013 for setting up of 2x 800 MW Udangadi Super Critical Imported Coal Based TPP at village Udangudi, in Thiruchendur Taluk, in Thoothukudi district, in Tamil Nadu. Subsequently, EC was amended on 26/07/2017 for reduction of unit sizes from 2 x 800 MW to 2 x 660 MW. Thereafter, validity extension of EC was accorded on 25/09/2020 till 13/10/2023. As per amendment to the EIA Notification, 2006 dated 18/01/2021, the validity of EC extended till 13.10.2023. However, project could not be commissioned within the validity period. In view of this, proponent obtained fresh Terms of Reference (ToR) on 29.07.2024 for obtaining fresh EC as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 with change of fuel mix i.e., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion. ToR was transferred vide letter dated 26.07.2025 from M/s TamilNadu Generation and Distribution Corporation (TANGEDCO) to M/s Tamilnadu Power Generation Corporation Limited (TNPGCL).

iii. Total required land for proposed project is 380 Ha, which include the plant area of 351.27 Ha and a coal jetty area of 28.73 Ha. However, land acquisition documents for 380 Ha has not been submitted.

iv. PP has obtained separate EC + CRZ Clearance MoEF&CC vide EC ID - EC22A004TN156490, and File No. 10-66/2020 -IA.III dated 03.08.2022 for Coal Jetty, Pipe Conveyor, Cooling water intake and outfall systems. Compliance status to the conditions prescribed in the EC& CRZ clearance has not been submitted.

v. Kuthiraimozhi Theri R.F – 7.8 km (NW) and Mangroves – 8.12 km (NE), Sand dunes – 0.5 km (E) are located within study area. There are no national parks, wildlife sanctuaries,

Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site as ascertained from DSS.

vi. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.

vii. PP has presented the coal characteristic of imported and domestic, which shall be use in 50:50 ratio. The Sulphur content of imported coal and domestic coal is reported as 0.52% and 0.31% respectively. Similarly, the ash content of imported coal and domestic coal is reported as 8.09% and 43.5%. Coal shall be transported by pipe conveyor system from coal jetty to plant site.

viii. The water requirement for the proposed project is estimated as 2,81,808 m3 /day, out of which 87,168 m3/day of fresh water requirement will be drawn from desalination plant and the remaining 1,94,640m3 /day will be met from the sea. A desalination plant shall be installed with 16 KLD capacity.

ix. The power requirement for the proposed project is estimated as 92 MW, which will be sourced from plant itself.

x. Action plan submitted by the proponent to address the issues raised Public Hearing held on 07/02/2009 is not in line with the MoEF&CC OM dated 30/09/2020.

xi. The capital cost of the proposed project is Rs. 13076.705 Crore and the capital cost for environmental protection measures is proposed as Rs. 993.17 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 61.61 Crore. The employment generation from the proposed project is 545.

xii. The Committee deliberated on the baseline data and incremental GLC. The committee noted that the proponent is providing High Efficiency Electrostatic Precipitator (ESP) to meet the stack emission standards for Particulate Matters 30 mg/Nm3, Low Nox Burner, and Dust Extraction & Suppression System to control the emission of Particulate matter, NOx, and stack with a height of 275 m will be provided to control & regulate the air emission from the proposed project.

xiii. The EAC examined the Compliance Certified Report (CCR) obtained from the Regional Office of MoEF&CC and observed that several stipulated conditions are not being complied by the PP. The Committee further noted that satisfactory action has not taken by the PP to address these non-compliances even after lapse of 10 years from the date of grant of EC. Accordingly, the Committee asked the PP to comply with all EC conditions stipulated in the earlier EC and to submit the compliance report, including CRZ clearance compliance, for further consideration.

xiv. Greenbelt development was proposed for 167.058 ha which is about 44% of the total project area is. The EAC observed the progress of greenbelt development along with boundary wall of the project site is very poor and unsatisfactory, and planted sapling of trees height is less than 2 meter. No tangible action has been taken by the proponent to develop green belt all along the periphery of the project site. In this regard, PP assured that they will carry out plantation activities all along the periphery of the project area within a time frame of one month and details will be submitted to the Ministry.

xv. The EAC observed that the carbon emission and sequestration data submitted by PP were irrelevant and recommended revising and updating the plan in the EIA/EMP reports.

Recommendations of the Committee

35.1.19: In view of the foregoing and after the detailed deliberations, the ***Committee recommended to defer*** the instant proposal and sought for following additional data/information:

i. Land acquisition documents for 380 Ha as per MoEF&CC OM dated 07/10/2014 and its

subsequent amendment dated 19/02/2025 shall be submitted.

ii. Certified compliance report from RO for the EC&CRZ clearance dated 03/08/2022 shall be submitted. In case of any non-compliances action taken report by the PP along with the closure report from Regional Office shall be submitted.

iii. Plantation activities all along the periphery of the project area shall be completed within a time frame of one month as committed and details of the same shall be submitted with geo-tagged photographs.

iv. Carbon emission and sequestration data submitted by PP shall be revisited and the same shall be resubmitted.

v. Year wise action plan to address the issues raised during public hearing held on 07/02/2009 shall be resubmitted in terms of MoEF&CC OM dated 30/09/2020 by duly incorporating the physical and financial outlay.

vi. Recommendations of the additional studies carried out namely Impact study on bio-diversity and aquatic ecology; hydrology and Hydrogeology study, Risk assessment Study and M-EIA study along with the action plan to comply with the same shall be submitted.

vii. Map depicting the existence of sand dunes and mangroves within the study area and conservation measures for protection of the same shall be submitted.

viii. Clarification on the percentage of completion of construction activity at the time of grant of ToR and at the time of EC application are found to be different. Factual status in this regard and undertaking stating that no construction activity has been undertaken post-expiry of validity of EC in a non-judicial stamp paper shall be submitted.

ix. Structural Stability Certificate from the Expert agency stating that present existing structures at the project site is structurally stable and suitable for continuation of work towards completion.

3.1.5. Recommendation of EAC

Deferred for ADS

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Environmental Clearance for Expansion in existing capacity of power plant from 600MW to 1400MW by addition of 1×800MW coal-based Super-Critical Thermal Power Plant (Phase-II) in the existing premises of M/s. Jhabua Power Limited (JPL) at village Barela & Gorakhpur, Tehsil Ghansore, District Seoni, Madh ya Pradesh by **JHABUA POWER LIMITED** located at **SEONI,MADHYA PRADESH**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/MP/THE/544463/2025	J-13012/105/2008-IA.II(T)	29/11/2025	Thermal Power Plants Coal/Lignite based plants (1(d))

3.2.2. Project Salient Features

Agenda item No. 35.2

35.2: Proposal for Expansion of existing capacity of power plant from 600MW to 1400MW by addition of 1×800MW Coal-based Super-Critical Thermal Power Plant (Phase-II) **by M/s. Jhabua Power Limited (JPL)** in the existing premises located at village Barela & Gorakhpur, Tehsil Ghansore, **District Seoni, Madhya Pradesh - Terms of Reference (ToR) – regarding.**

[Proposal No: IA/MP/THE/544463/2025; F. No. J-13012/105/2008-IA.II(T)]

35.2.1: M/s. Jhabua Power Limit has made an application online vide proposal no. IA/MP/THE/544463/2025 dated 29/11/2025 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Name of the EIA consultant: M/s. MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra. Certificate No. NABET/EIA/24-27/RA 0343; Valid up to 05/02/2027].

3.2.3. Deliberations by the committee in previous meetings

N/A

3.2.4. Deliberations by the EAC in current meetings

35.2.2: The Committee noted the following shortcomings in the proposal submitted by the proponent:

i. The instant project proposal is seeking for Terms of Reference (ToR) for the expansion of the existing 1 x 600MW TPP through the addition of 1 x 800 MW Coal based Super Critical Thermal Power Plant (Phase-II) by M/s. Jhabua Power Limited (JPL), at village Barela & Gorakhpur, Tehsil Ghansore, District Seoni, Madhya Pradesh. However, the Project proponent submitted technical data pertaining to a 1x800 MW Coal based Ultra Super Critical Thermal Power Plant. The committee prima-facie observed that Terms of Reference (ToR) proposal submitted by the Project proponent in a very casual manner, as there is no clarity regarding the exact nomenclature of the proposed project and technology proposed for upcoming project.

ii. The existing project of 1x600MW is located in 406 acre (164.302 ha) as per granted EC dated 17.10.2010. However, the Project proponent has indicated a total land requirement of 470.493 Ha (347.459 for existing project and 123.034 ha for proposed project) whereas in the presentation, the total land requirement has been stated as 470.42 ha (164.1 ha for the existing project and 306.32 ha for the proposed project). The Committee observed a complete lack of homogeneity and consistency in the land area details of the existing and proposed projects across the application, presentation, and the Pre-Feasibility Report (PFR). Accordingly, the Project Proponent is required to rectify and harmonize the land-related information and details of latitudes and longitude in requisite documents.

iii. Forest land area 3.88 Ha is in the project area, and Forest Clearance (FC) was obtained vide letter dated 07-02-2012 from MoEF&CC.

iv. The Project Proponent (PP) did not present details of sensitive receptors such as hospitals,

schools, and villages during the presentation. The PP is required to revise the application and PFR with including all sensitive receptors presented within study area. PP needs to submit a toposheet issued by the Survey of India indicating the presence of environmental sensitive receptors.

v. Coal requirement for the proposed project is estimated 3.9 MTPA for 1 x 800 MW Unit. Ash generation is estimated 1.56 MTPA (Fly ash & Bottom ash). However, total estimated 3900000 MTPA coal requirement for proposed project is mentioned in submitted application. The committee observed the discrepancy in coal requirement data, therefore PP is required to revise the information, for further consideration.

vi. The committee observed no clarity in the water requirement for the project as presented by the Project Proponent (PP). In some places, the water requirement is mentioned as 32 cusecs for the project, while elsewhere it is stated as 18 cusecs for the existing project and 31 cusecs for the proposed project. The PP has obtained water permission for utilization of 16 MCM per annum from Bargi Dam (Rani Avanti Bai Lodhi Sagar), Jabalpur, vide letter dated 02.04.2016, and has also submitted applications to the Water Resources Department (WRD) vide letters dated 24.07.2025 and 07.11.2025 for obtaining 28 MCM per annum of water from Bargi Dam. Therefore, the PP is required to revise and resubmit the water requirement details with accurate, consistent, and factual information.

vii. The Project Proponent (PP) has not submitted the engineering drawings/plant layout plans for the existing (1 × 600 MW) as well as the proposed (1 × 800 MW) project. Therefore, PP is required to submit the complete and duly authenticated plant layout drawings.

viii. The total ash pond area required for the project is 287.00 acre (116.145 Ha) including 90 acre (36.42 Ha) for the existing ash pond and 197.0 acre (79.72 Ha) for proposed ash pond. However, the PP has mentioned different and inconsistent values in the submitted documents. Therefore, the committee advised the PP to correct and reconcile the ash pond area with accurate details.

ix. PP has presented the baseline data collected during March to May 2025 for incorporating in EIA report. The committee observed that the baseline air quality monitoring data (collected during March 2025-May 2025) were inadequate and data was not collected in accordance with the wind rose diagram and did not follow upwind, downwind and crosswind directions. Therefore, PP is required to collect fresh baseline data after selecting the number and locations of monitoring stations with scientific justification. In case of surface water monitoring, the number of monitoring location shall not be less than ten.

x. The project proponent has not circulated basic documents such as pre-feasibility report, brief summary in prescribed format to the EAC members. During the meeting neither the project proponent nor the consultant were able to explain the salient features of the existing and proposed project.

xi. The Committee noted several discrepancies in the information provided by the PP/consultant, and observed that the Project Proponent (PP) could not give satisfactory responses during the EAC presentation.

xii. The committee advised the project proponent to revisit the entire proposal in totality by addressing all relevant concerns related to the proposal under consideration. Thereafter, appropriate changes with true information in all the requisite documents such as application form, annexure, presentation, pre-feasibility report (PFR) etc. shall be carried out and the proposal shall be submitted for fresh consideration by the EAC.

Recommendations of the Committee

35.2.3: In view of the forgoing and after deliberations, the Committee recommended to ***return the proposal in its present form*** and asked the proponent to revisit the entire application by incorporating all the technical shortcomings inter-alia including the above and thereafter proposal shall be submitted by the proponent for fresh consideration by the EAC.

3.2.5. Recommendation of EAC

Returned in present form

3.3. Agenda Item No 3:

3.3.1. Details of the proposal

Amendment in Environmental Clearance for Exemption from Installation of FGD as per MoEF&CC Notification dated 11.07.2025 for 2×600 MW Anapara Thermal Power Plant, Village Anpara, District Sonebhadra, Uttar Pradesh by M/s MEIL Anpara Energy Limited by **MEIL ANPARA ENERGY LIMITED** located at **SONBHADRA,UTTAR PRADESH**

Proposal For		Amendment in EC	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/UP/THE/560000/2025	J- 13011/45/2007-IA-II (T)	12/12/2025	Thermal Power Plants Coal/Lignite based plants (1(d))

3.3.2. Project Salient Features

Agenda item no. 35.3

35.3: 2×600 MW Anpara Thermal Power Plant by **M/s. MEIL Anpara Energy Limited** located at village Anpara, District Sonebhadra, Uttar Pradesh – **Amendment in Environment Clearance regarding review of Sulphur dioxide emission standards for Category B TPP as per MoEF&CC Notification dated 11/07/2025 – regarding**.
[Proposal No: IA/UP/THE/560000/2025; F.No. J- 13011/45/2007-IA-II (T)]

35.3.1: M/s. MEIL Anpara Energy Limited has made online application vide proposal no. IA/UP/THE/560000/2025 dated 12.12.2025 along with Form 4 & addendum EIA report prepared through QCI/NABET accredited consultant and sought for amendment in the Environmental Clearance accorded by the Ministry vide letter no. J-13011/45/2007-IA-II (T) dated 26.11.2007 for the project mentioned above under the provisions of the EIA Notification, 2006.

Name of the EIA consultant: M/s Gaurang Environmental Solutions Pvt. Ltd. [S. No. 110 List of ACOs with their Certificate No.: NABET/EIA/23-26/RA 0338 (Valid up to 07.12.2026).

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting are given as under:

35.3.2: The existing project of M/s. MEIL Anpara Energy Limited was originally granted Environmental Clearance in favour of M/s. Lanco Anpara Private Limited for setting up 2x600

MW Anpara Thermal Power Plant at Village Anpara, District Sonebhadra, Uttar Pradesh vide letter no J-13011/45/2007-IA-II (T) dated 26.11.2007 under EIA, 2006. Subsequently, amendment to the EC was accorded on 31/07/2008 for allowing the change in Closed Cycle cooling system with induced draft cooling towers. Later, MoEF&CC transferred the EC in favor of M/s MEIL Anpara Energy Limited, vide order dated 13.01.2025.

35.3.3: The implementation status of the existing EC dated 26/11/2007 is as follows:

S. No.	Configuration	Capacity (MW)	Date of accord of EC	Date of commissioning of unit 1 & 2	Production as per CTO dated 25.11.2024 valid up to 31/12/2029
1.	2 x 600 MW (Unit -1 & 2)	1200 MW	26.11.2007	Units 1 : 10.12.2011 Units 2 : 18.01.2012	2 x 600 MW

In addition to the above TPP, another project proponent namely M/s. UPRVUNL is operating another TPP with a total capacity 2630 MW [Unit 1, 2 &3- 630 MW (210 MW each) & Unit 4,5,6&7 – 2000 MW (500 MW each)] in the vicinity of the above mentioned project site.

35.3.4: Total land requirement for the TPP is 112.005 ha [Govt. Land 109.005 ha & Forest land:3 Ha]. Stage II FC obtained on 07.03.2007. The nearest SPA is Singrauli industrial area, which is 6.2 km from project boundary in W Direction. CEPI Score for Singrauli industrial area is 62.59. There are no national parks, Biosphere Reserves, Eco-sensitive zone, Tiger/Elephant Reserves and Wild Life Corridors within 10 km distance from the project site as ascertained from DSS.

35.3.5: Background for amendment sought by the proponent

With respect to the instant EC amendment proposal, following was apprised to the members of the EAC during the meeting:

a. Initially, MoEF&CC (erstwhile MoEF) notified stack emission standards for Particulate Matter (PM) parameter vide Notification dated 03.01.1989 requiring TPPs to install Electrostatic Precipitators (ESPs) to reduce emission.

b. MoEF&CC notified stack height regulation for TPPs vide Notification dated 30.08.1990. The said notification outlined stack height regulations based on the plant's capacity and Sulphur content in the fuel, ensuring proper dispersion of the pollutants (SO_2 and NOx) through adequately large stacks.

c. MoEF&CC vide its notification dated 07.12.2015 stipulated emission standards for coal/lignite-fired TPPs, which included revised emission standards for Particulate Matter (PM), and newly introduced emission standards for Sulphur dioxide (SO_2), Oxides of Nitrogen (NOx), and Mercury (Hg) parameters with timelines.

d. MoEF&CC vide its notification dated 28.06.2018 directed that the coal/lignite-fired TPPs are required to implement suitable technology namely, wet Flue Gas De-sulphurisation (FGD) - Lime Stone based; Seawater based FGD, Dry-Sorbent Injection(DSI) or using low-sulphur coal to control SO2 emission. In the said notification, stack height criteria for TPPs also modified as given below:

Parameter	Existing Standards (G.S.R. 742(E) dated 30.08.1990)	New Standards Notification G.S.R. 593 dated 28.06.2018)
Stack height (meters)	H = **275 meter** (≥ 500 MW units) H = **220 meter** (210 MW to < 500 MW units) H = 14 Q^0.3 meter (< 210 MW) (Where Q is emission rate of SO_2 in kg/hr)	H = 6.902 (Q x 0.277)^0.555 meter (Minimum 100 meter for ≥ 100 MW units) (Minimum 30 meter for < 100 MW units) (Where Q is emission rate of SO_2 in kg/hr, total of the all units' connected to stack)

e. Flue Gas Desulfurization (FGD) is a pollution control technology to remove SO_2 from the flue gases emitted by the coal/lignite-fired thermal power plants (TPPs) with the help of usage of alkaline dry/wet media [lime/lime slurry] (or) seawater.

f. In March 2021, MoEF&CC vide amendment notification dated 31.03.2021 prescribed the categorization of TPPs into Category A, B, and C, based on TPPs' location as given below with extended time limits up to December 2022, December 2023, and December 2024, respectively to comply with the prescribed emission norms.

Category of TPPs	No of units in the TPPs	Installed capacity(MW)
A: Within l0 km radius of National Capital Region or cities having million plus population	66 Nos	20557
B: Within l0 km radius of Critically Polluted Areas or Non-attainment cities	72 Nos	24057
C. Other than those included in Category A and B	462 Nos	166885.5
Total	**600 Nos**	**211519.5**

g. In September 2022, MoEF&CC vide amendment notification dated 05.09.2022 extended the time limits for SO_2 emission limit compliance for Category A, B, and C plants by 2 years i.e. up to December 2024, December 2025, and December 2026, respectively.

h. In December 2024, MoEF&CC vide amendment notification dated 30.12.2024 further extended the time limits for SO_2 emission limit compliance for Category A, B, and C plants by 3 years i.e. up to December 2027, December 2028, and December 2029, respectively.

i. MoEF&CC vide notification dated 11/07/2025 amended the provisions related to sulphur dioxide emission standards for Category –B Thermal Power Plants (TPPs) as mentioned below:

Category B: For all Category B Plants or Units, whether existing or upcoming, the applicability of Sulphur dioxide emission standards, shall be decided on a case to case basis by the Central Government based upon the recommendations of the Expert Appraisal Committee in

charge of Thermal Power Projects constituted under Environment Impact Assessment notification 2006 based on the appropriate scientific studies as per the following procedure:

These standards for Sulphur dioxide emissions shall be applicable with effect from the 31/12/2028 in respect of all those plants or units, which have not opted for review within the given timeframe, as specified in para (A) above.

j. As per the CPCB categorization with the respect to Sulphur di-oxide (SO_2) emission norms, 2 x 600 MW TPP of M/s. MEIL Anpara Energy Limited falls under Category B.

k. In pursuance to the MoEF&CC Notification dated 11/07/2025, M/s. MEIL Anpara Energy Limited has submitted their application for amendment in EC within the prescribed time frame seeking for review of Sulphur dioxide emission standards

35.3.6: The summary of the information submitted by the proponent in the addendum EIA report are as follows:

i. Average coal consumption and the average Sulphur content of coal is being used in the TPP for last three months period.

Month	**Coal consumption in MT**		
	Unit-1	**Unit-2**	**Total**
Aug-25	230123.00	249476.58	479599.58
Sep-25	235960.96	234718.00	470678.96
Oct-25	208349.00	198837.67	407186.67
Domestic Coal is being used while maintaining Sulphur content< 0.6%.			

ii. Minimum, maximum and 98th percentile levels of ambient PM_{10}, $PM_{2.5}$, NO_X, and SO_2 from secondary monitored AAQ data for last three months period.

S. No.	**Name of location**	**Parameters being monitored**	**Remarks**
CAAQMS Locations			
1	Switch yard	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO	Core zone
2	Central store		Core zone
3	MEIL Township		Buffer zone
Manual Monitoring Locations(NABL Approved Lab)			
1	Track hopper	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO	Core zone
2	Village Kakri		Buffer zone
3	Village Dibulganj		Buffer zone
4	HSCL Colony		Buffer zone

UPPCB Monitoring Locations			
1	Renusagar Colony	PM_{10}, $PM_{2.5}$, SO_2, NO_2	Buffer zone
2	Anpara Colony		Buffer zone

Summary of AAQ Result for August-October 2025:

S. No.	Name of location	Parameter	Concentration in µg/m^3			NAAQS
			Min	Max	Average	
1	Track hopper	PM_{10}	42.11	54.70	47.07	100
		$PM_{2.5}$	20.58	25.66	22.42	60
		SO_2	12.47	18.94	16.65	80
		NO_x	18.20	22.78	20.20	80
		CO (mg/m^3)	0.490	0.620	0.529	02
2	Village Kakri	PM_{10}	39.44	50.26	44.56	100
		$PM_{2.5}$	18.56	26.36	21.75	60
		SO_2	12.47	18.54	15.83	80
		NO_x	17.16	21.48	19.45	80
		CO	0.44	0.570	0.520	02
3	Village Dibulganj	PM_{10}	39.22	50.26	42.82	100
		$PM_{2.5}$	18.49	22.69	20.35	60
		SO_2	8.08	18.02	12.22	80
		NO_x	15.66	21.32	18.63	80
		CO (mg/m^3)	0.330	0.580	0.429	02
4	HSCL Colony	PM_{10}	38.48	48.63	42.67	100

S. No.	Name of location	Parameter	Concentration in µg/m^3			NAAQS
			Min	Max	Average	
		$PM_{2.5}$	17.20	22.65	19.46	60
		SO_2	8.25	14.69	11.04	80
		NO_x	14.02	20.35	17.12	80
		CO(mg/m^3)	0.350	0.500	0.441	02
5	Renusagar Colony	PM_{10}	121	122	156	100
		$PM_{2.5}$	NA	54	75	60
		SO_2	15.35	16.72	17.52	80
		NOx	19.10	18.26	20.52	80
6	Anpara Colony	PM_{10}	119	118	133	100
		$PM_{2.5}$	NA	53	70	60
		SO_2	14.61	14.90	16.06	80
		NOx	18.35	17.44	19.29	80

iii. Average stack emissions for PM, NOx, and SO_2 parameters for last three months, flue gas concentration in mg/Nm^3

S. No.	Name of location	Parameter	Concentration in (mg/Nm^3) August 2025-October 2025		
			Max	Min	Avg.
1	Stack 1	PM	63*	12.7	36.87
		SO_2	690.8	9.5	598.9
		NO_2	236.7	1.4	152.2
2	Stack 2	PM	85.9*	27.7	36.7
		SO_2	792	614.6	712.23

S. No.	Name of location	Parameter	Concentration in (mg/Nm^3) August 2025-October 2025		
			Max	Min	Avg.
		NO_2	338.3	93.5	23.16

**The maximum particulate matter (PM) emissions above 50 mg/Nm³are observed during start-up and shut-down (maintenance) operations of the system. Under normal and continuous operating conditions, the PM emissions are consistently maintained below 50 mg/Nm³.*

Mass emission rate of pollutants in gram per second

S. No.	Parameters	Units	Unit 1 (1x600)	Unit 2 (1x600)
1	Stack Height	M	275	
2	No. of flue	No.	1	1
3	Top diameter of flue	m	6.8	6.8
4	Flue gas velocity in each flue	m/s	27.12	27.57
5	Flue gas temperature	^{O}K	363	363
6	Volumetric Flow rate of gas in each flue	Nm^3/s	984	1000
7	**Emission Rates**			
A	PM_{10} (Emission Factor 2.3A lb/ton)	g/s	34.02	31.83
B	$PM_{2.5}$ (Emission Factor 0.6A lb/ton)	g/s	8.5	7.96
C	SO_2 (Emission Factor 35S lb/ton)	g/s	841.5	863
D	NO_x (Emission Factor 7.2 lb/ton)	g/s	353.5	359

iv. Current stack height in the TPP and compliance with the MoEF&CC Notification of August 30, 1990 (or) June 28, 2018.

The Company has already constructed 275 m high Bi-flue stack before commissioning. The TPP has already complied with the stack height (275 meters) in terms of the notification number GSR 742 (E) dated 30th August'1990.

v. Assessment of maximum Ground Level Concentration (GLCs) of pollutants from the stack emission as per the envisaged stack height (as applicable) based on available site-specific meteorological parameters. Details of the model used, input data used for modelling and output data of the modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors.

The predicted maximum Ground Level Concentration (GLCs) of PM_{10}, $PM_{2.5}$, NO_X, and SO_2

values were assessed at envisaged stack height of 275 m and reported in the EIA (2007). Since then, no addition of units or expansion of the project area, and the emission sources remain unchanged. Accordingly, the incremental GLC presented in the EIA continues to represent the project's contribution, and current ambient air quality reflects this without any increase, in compliance with applicable standards.
However as required, assessment of maximum GLCs of PM_{10}, $PM_{2.5}$, NO_X, and SO_2 pollutants from the stack emission as per the stack height of 275 m based on available site-specific meteorological parameters & stack monitoring reports has been done using AERMOD dispersion model for different stability state Gaussian plume dispersion, designed for multiple point sources for short term and developed by United States Environmental Protection Agency [USEPA] has been used for simulations.

GLC of pollutants at sampling location:

Receptor Location	**GLC at Monitoring Location (µg/m^3)**			
	PM_{10}	**$PM_{2.5}$**	**SO_2**	**NO_x**
Track Hopper#	0.226	0.056	5.87	2.45
Kakri#	0.229	0.057	5.9	2.48
HSCL Colony#	0.16	0.04	4.2	1.77
Dibluganj#	0.25	0.06	6.6	2.76
Renusagar Colony^	0.21	0.068	7.03	2.94
Anpara Colony^	0.28	0.069	7.2	3.01

 # baseline values as per monitoring being done regularly by MEIL.
^ Baseline as per ambient air quality results published by UPPCB

vi. Environment Management Plan (EMP):

Details as prescribed by MoEF&CC	**Information provided by Proponent**
Environment Management Plan (EMP) covering the following: **a.** Impact of ground level concentration on the environment if any and corresponding mitigation measures to be adopted. **b.** Additional miti	Based on coal quality, stack emission characteristics, ambient air quality observations, and AERMOD model predictions, the Air Quality Impact Prediction (AQIP) study conclusively demonstrates that: • SO_2 contribution from MEIL Anpara TPP is minimal, owing to the very low sulphur coal (0.29-0.38%), & 275 m high Bi-flue stack • SO_2 GLC concentrations are minimal, with the highest GLC being 15.31 µg/m³ at 2.17 km from the plant, and between 4.2–7.2 µg/m³ at receptor locations. • The air quality challenges in the region relate to PM (regional background sources), not SO_2, and therefore installing an FGD would not yield any significant ambient air quality benefit. • The EMP includes mitigation measures such as:

Details as prescribed by MoEF&CC	Information provided by Proponent
gation measures proposed if any.	● Hybrid ESP (High efficiency) installed ● 275 m height chimney for dispersion of pollutants ● **OCEMS** installed and connected with UPPCB. ● Low NOx burners and over fire air dampers installed to control NOx ● 3 Nos. of **CAAQMS** installed ● Online Effluent Quality monitoring system installed in ETP outlet. ● ETP (1 No.) & STP (2 Nos.) installed and treated water used for Greenbelt development. ● MEIL undertakes to adhere to comply all the conditions stipulated in the EC as well as Consent and compliance reports are being submitted on regular basis to the MoEFCC/CPCB/UPPCB.

Air Pollution & Fugitive Emission Control Systems

Emission Source / Area	Control System / Measure Implemented
Particulate Matter (PM)	● Hybrid Electrostatic Precipitators (ESP + Bag Filters) installed in Unit-1 & Unit-2 ● 275 m high stack for effective dispersion
Nitrogen Oxides (NOx)	Advanced Low-NOx burners ● Over-Fire Air (OFA) dampers in steam generators
Coal Transportation	● 100% coal transported through Rail-based MGR system from Khadia (Expansion) mine, Singrauli
Coal Handling & Storage	● Water spraying at transfer points, loading/unloading stations & stockpiles ● Dust extraction systems at crusher houses & bunker transfer towers Water sprinklers in coal yard during stacking & reclaiming
Coal Bunkers	● Bunker ventilation system for dust & methane evacuation ● Collected dust recycled to conveyor/bunkers
Fly Ash Handling	● Pneumatic closed-pipeline fly ash evacuation from ESP hoppers ● Bag filters installed on top of fly ash silos
Fly Ash Loading & Transport	● Fly ash conditioned with water spray during loading ● Covered bulkers used to prevent airborne dispersion
Fly Ash Disposal	● Primarily supplied to cement industries by road ● Wet slurry disposal system during emergency conditions

Emission Source / Area	Control System / Measure Implemented
Fly Ash Utilization	● Continuous efforts for **100% fly ash utilization** in compliance with MoEF&CC Notification dated **31.12.2021**

35.3.7: Amendment sought: The details of the condition for which amendment is sought and justification for the same is as follows:

Sr. No.	Condition as per EC dated 26.11.2007	Amendment Sought	Justification & Request for Amendment
1.	Space provision shall be made for installation of FGD of requisite efficiency of removal of SO_2, if required at a later stage. **(Condition no. vi)**	MEIL is seeking for review of the applicability of Sulphur dioxide standards and exemption for installation of FGD in terms of the MoEF&CC notification dated 11.07.2025.	i. The Units are operational since 2011 (Unit-1) & 2012 (Unit-2) with 275m height of RCC Chimney (bi-flue). This complies with the stack height criteria notified vide notification no.- GSR 742 (E) dated the 30th August'1990. ii. Domestic Coal is being used while maintaining Sulphur contents <0.6%. iii. Regular Environmental Parameters Monitoring & Analysis are being carried out in and around the TPP through NABL Accredited Laboratory. iv. 3 Nos CAAQM stations are installed and operational v. The GLC values were assessed and reported in the EIA (2007). Since then, no addition of units or expansion of the project, and the emission sources remain unchanged. Accordingly, the incremental GLC presented in the EIA continues to represent the project's contribution, and current ambient air quality reflects this without any increase, in compliance with applicable standards.

3.3.3. Deliberations by the committee in previous meetings

N/A

3.3.4. Deliberations by the EAC in current meetings

Observations and deliberation of the EAC

35.3.8: The Committee observed and noted the following:

i. The instant proposal is for seeking amendment in a EC conditions as per MoEF&CC Notification dated 11/07/2025 for Sulphur dioxide emission standards, prescribed in EC letter dated 26.11.2007, accorded for the project " 2×600 MW Thermal Power Plant by M/s. MEIL Anpara Energy Limited located at village Anpara, District Sonebhadra, Uttar Pradesh.

ii. The existing project was accorded Environmental Clearance dated 26.11.2007 from MoEF&CC for setting up of 2×600 MW Anapara Thermal Power Plant, and subsequently amended on 31.07.2008. Further, EC was transferred to M/s. MEIL Anpara Energy Limited

from M/s. Lanco Anpara Private Limited on 13.01.2025. CTO is valid up to 31.12.2029.

iii. The Stage–II Forest Clearance (FC) for diversion of 3.0 ha of forest land, located within the existing project site, was obtained by the project proponent on 07.03.2007.

iv. There are no national parks, Biosphere Reserves, Eco-sensitive zone, Tiger/Elephant Reserves and Wild Life Corridors within 10 km distance from the project site as ascertained from DSS.

v. As per the KML file uploaded, the total area is 67.5 Ha which is different from the area mentioned in the EC letter dated 26/11/2007. Proponent unable to clarify this point. Copy of the application submitted for transfer of stage II FC dated 07.03.2007 in the new proponent name has not been submitted.

vi. The project site is not located within the Critically Polluted Area (CPA) but nearest Severally Polluted Area (SPA) is Singrauli industrial area, which is 6.2 km from project boundary in West Direction and CEPI score is 62.59.

vii. During the last three months, the total coal requirement for Unit-1 and Unit-2 was 479,599.58 MT, 470,678.96 MT, and 407,186.67 MT for the months of August, September, and October 2025, respectively. Domestic coal is being used, while maintaining a sulphur content of less than 0.6 %.

viii. The Project Proponent (PP**)** presented ambient air quality data (PM_{10}, $PM_{2.5}$, NO_x, SO_2, etc.) for the core and buffer zones. However, the EAC observed that the reported concentrations of PM_{10} and $PM_{2.5}$ at Renusagar Colony **(**156 µg/m³ and 75 µg/m³**,** respectively) and Anpara Colony **(**133 µg/m³ and 70 µg/m³**,** respectively), as submitted by the PP, are above the CPCB prescribed standards**.** Further, the PM, and SO_2 concentrations in the ambient air showed significant variation while comparing the data with the UPPCB data**.** Neither the proponent nor the consultant was able to explain the reasons for variation in the AAQ data with proper justification.

ix. The mass emission rate of pollutants including PM_{10}, $PM_{2.5}$, NOx, and SO_2 were estimated 34.02, 8.5, 841.5, 353.5 g/s, respectively for unit-1 and 31.83, 7.96, 863 and 359 g/s, respectively, for unit-2.

x. Project proponent has installed a 275 m bi-flue stack, which complies with the MoEF&CC Notification dated August 30, 1990.

xi. As per the submitted addendum EIA report prepared through QCI/NABET accredited consultant, the predicted maximum Ground Level Concentration (GLCs) using AERMOD View dispersion model from the stack emission as per the envisaged stack height and site-specific meteorological parameters the maximum GLC of PM_{10} is 0.28 µg/m^3, $PM_{2.5}$ is 0.069 µg/m^3, SO_2 is 7.2 µg/m^3 and NOx is 3.01µg/m^3. However, no data has been furnished regarding impact of GLC on the prevailing AAQ levels.

xii. The committee noted in the vicinity of the project site, there are another seven power-generating units (3x210MW and 4x500MW) of M/s. UPRVUNL which are already under operation.

xiii. The EAC sought information regarding the Sulphate concentration in the Suspended Particulate Matter (SPM), but the requisite data was not available with PP at the time of presentation. The committee asked the proponent to furnish the same.

xiv. The details regarding additional pollution measures to be adopted by the proponent to maintain the PM levels in the ambient air and stack emission as per the prevailing norms, budget (capital & recurring) towards the additional mitigation measures and monitoring mechanism for updated EMP have not been provided in the addendum report.

xv. Project proponent shall submit an action plan to reduce the PM emission level in the stacks below the prescribed norms within a time frame of one year.

xvi. The committee asked the proponent to revisit the addendum report in totality by duly addressing all the above shortcomings and fresh proposal shall be submitted by the proponent for consideration by the EAC.

Recommendations of the Committee

35.3.9: In view of the foregoing and after the detailed deliberations, the Committee **recommended to return the proposal in its present form** and asked the proponent to

revisit the entire application by incorporating all the technical shortcomings inter-alia including the above and thereafter proposal shall be submitted by the proponent for fresh consideration by the EAC.

3.3.5. Recommendation of EAC

Returned in present form

3.4. Agenda Item No 4:

3.4.1. Details of the proposal

Proposed 3200 MW Coal Based Ultra Super Critical Thermal Power Project at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, District Dhubri, Assam by Adani Power Limited by **Adani Power Limited** located at **DHUBRI,ASSAM**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/AS/THE/560845/2025	J-13012/10/2025-IA.I(T)	09/12/2025	Thermal Power Plants Coal/Lignite based plants (1(d))

3.4.2. Project Salient Features

Agenda item no. 35.4

35.4: Proposed 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power Project by **M/s Adani Power Limited** at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, **District Dhubri, Assam – Prescribing of Terms of Reference (ToR) – regarding.**

[Proposal No: IA/AS/THE/560845/2025; F. No. J-13012/10/2025-IA.I(T)]

35.4.1: M/s Adani Power Limited has made an online application vide proposal no. **IA/AS/THE/560845/2025** dated 09/12/2025 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level. The project do not attract the provisions of general condition of the EIA Notification, 2006.

Name of the EIA consultant: M/s Gaurang Environmental Solutions Pvt. Ltd. [[S. No. 110 List of ACOs with their Certificate No.: NABET/EIA /23-26/RA 0338 dated 16.07.2024 valid up to 07.12.2026].

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

35.4.2: The proposed greenfield project is for setting up of 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power project at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, District Dhubri, Assam by M/s. Adani Power Limited.

35.4.3: Environmental site settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>585 Ha [Private: 118.7 Ha + Govt: 466.3 Ha]</td><td>Land use: Industrial
(The land is allotted by APDCL, Govt. of Assam)</td></tr>
<tr><td>2.</td><td>Land use break up</td><td><table>
<tr><th>Particular</th><th>Area (in Ha.)</th></tr>
<tr><td>Main Plant</td><td>100</td></tr>
<tr><td>Coal Handling System (including Wagon Tippler)</td><td>70</td></tr>
<tr><td>Water System</td><td>20</td></tr>
<tr><td>Switch Yard</td><td>Included in Main Plant Area</td></tr>
<tr><td>Green belt</td><td>147</td></tr>
<tr><td>Roads</td><td>Included in Main Plant Area</td></tr>
<tr><td>Ash pond</td><td>70</td></tr>
<tr><td>Railway Siding</td><td>Outside plant boundary</td></tr>
<tr><td>Water supply pipeline (inside plant boundary)</td><td>Included in Main Plant Area</td></tr>
<tr><td>Ash transport pipeline</td><td>Included in Main Plant Area</td></tr>
<tr><td>Others:</td><td></td></tr>
<tr><td>Land for Future Expansion including CGU (11 Ha)</td><td>178</td></tr>
<tr><td>Total</td><td>585 Ha</td></tr>
</table></td><td>--</td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M.dated 7/10/2014 & 20/2/2025</td><td>The land is allotted by Assam Power Distribution Company Limited (APDCL).</td><td>Lease Deed submitted along with ToR application.</td></tr>
<tr><td>4.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: Charuabakhra, Chirakuta I & II, Santoshpur.
Study Area: As below<table>
<tr><td>Habitation / village</td><td>Distance (Km)</td><td>Direction</td></tr>
<tr><td>Charuabakhra</td><td>Adjacent</td><td>-</td></tr>
<tr><td>Chirakuta I</td><td>Adjacent</td><td>-</td></tr>
<tr><td>Chirakuta II</td><td>Adjacent</td><td>-</td></tr>
<tr><td>Santoshpur</td><td>Adjacent</td><td>-</td></tr>
<tr><td>Gourangtari Pt I</td><td>2.5</td><td>NE</td></tr>
<tr><td>Baniapara Pt II</td><td>5.3</td><td>E</td></tr>
<tr><td>Baniapara Pt I</td><td>4.5</td><td>SE</td></tr>
</table></td><td>Status of R&R.
No R & R is involved.
The land is allotted by Assam Power Distribution Company Limited (APDCL) to set up the Power Project as per the agreement with the State Govern</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Salkocha</td><td>4.3</td><td>SE</td></tr>
<tr><td>Geravita</td><td>4</td><td>SW</td></tr>
<tr><td>Hapapara</td><td>1.5</td><td>N</td></tr>
<tr><td>Khamarpara</td><td>3.4</td><td>SE</td></tr>
<tr><td>Tokrabandha</td><td>2.4</td><td>SW</td></tr>
<tr><td>Bilasipara</td><td>5</td><td>E</td></tr>
<tr><td>Jamduar Pt II</td><td>2.7</td><td>NW</td></tr>
<tr><td>Chandardinga</td><td>7</td><td>SE</td></tr>
</table>
</td><td>ment</td></tr>
<tr><td>5.</td><td>Existence of school and hospital if any.</td><td>
A. <u>School</u>
Project site: NIL
Study Area: As below
<table>
<tr><th>School</th><th>Distance (Km)</th><th>Direction</th></tr>
<tr><td>Salkocha HS School, Salkocha</td><td>3.5</td><td>E</td></tr>
<tr><td>Silgara High School, Hapapara</td><td>3.1</td><td>N</td></tr>
<tr><td>Dwarshila High School, Ishilamari</td><td>5.5</td><td>SW</td></tr>
<tr><td>Tilapara HS School, Tilapara</td><td>3.1</td><td>S</td></tr>
<tr><td>Govt Model College, Bilasipara</td><td>2.2</td><td>W</td></tr>
<tr><td>Silgara ME School, Silgara</td><td>3.1</td><td>NE</td></tr>
<tr><td>Sankardev Sishu Viddya Nicatan, Salkocha</td><td>3.0</td><td>NE</td></tr>
</table>
B. <u>Hospital</u>
Project site: NIL
Study Area: As below
<table>
<tr><th>Hospital</th><th>Distance (Km)</th><th>Direction</th></tr>
<tr><td>Salkocha Hospital, Silkocha</td><td>2.2</td><td>E</td></tr>
<tr><td>Diporkhuti Civil Hospital, Bilasipara</td><td>7.5</td><td>NW</td></tr>
</table>
Protection measures to be adopted are as follows:
Control of Air Emissions:
Provision of High Efficiency ESP, Low NOx Burner & Over Fire Air System, Dust Extraction, Dust Suppression, Dry Fog Dust Suppression, Fog Cannons at Ash Dyke, Water Sprinkling on Hauling Roads.
Noise: Acoustic Enclosures & barriers
Greenbelt Development: Development of dense greenbelt in the periphery of plant as well as towards the side of villages/ habitations, Afforestation/ Miyawaki Plantation on available land.
Wastewater: ETP, STP, Ash water recycling system,
</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>Zero Liquid Discharge, Rainwater Harvesting, Watershed Development in the vicinity.
Safety: Display signage's, speed breakers, and crossing guard's provision; optimization of heavy vehicle movement near villages, Disaster Management Plan & Provisions.
Health & Awareness: Regular health camps, distribution of masks, and environmental awareness programs for surrounding community.
CSR & Monitoring: Support for infrastructure and development, and regular monitoring of air and noise pollution.</td><td></td></tr>
<tr><td>6.</td><td>Latitude and Longitude of all corners of the project site.</td><td>A. Plant site
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>26°13'50.10"N</td><td>90°16'58.93"E</td></tr>
<tr><td>2</td><td>26°14'6.60"N</td><td>90°17'41.64"E</td></tr>
<tr><td>3</td><td>26°14'26.69"N</td><td>90°18'2.40"E</td></tr>
<tr><td>4</td><td>26°14'37.75"N</td><td>90°18'47.05"E</td></tr>
<tr><td>5</td><td>26°14'2.46"N</td><td>90°19'1.55"E</td></tr>
<tr><td>6</td><td>26°13'35.93"N</td><td>90°18'56.79"E</td></tr>
<tr><td>7</td><td>26°13'6.10"N</td><td>90°18'10.04"E</td></tr>
<tr><td>8</td><td>26°13'19.28"N</td><td>90°17'34.83"E</td></tr>
</table>
B. Ash Pond
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>26°14'04.15"N</td><td>90°17'43.94"E</td></tr>
<tr><td>2</td><td>26°13'41.41"N</td><td>90°17'43.89"E</td></tr>
<tr><td>3</td><td>26°13'41.56"N</td><td>90°17'58.71"E</td></tr>
<tr><td>4</td><td>26°14'03.54"N</td><td>90°17'58.90"E</td></tr>
<tr><td>5</td><td>26°13'52.49"N</td><td>90°17'51.58"E</td></tr>
</table></td><td></td></tr>
<tr><td>7.</td><td>Elevation of the project site</td><td>Site elevation (MSL): approx. 63 Meters
Site is substantially located at approx. 13 Meters higher elevation with respect to Brahmaputra River.</td><td></td></tr>
<tr><td>8.</td><td>Involvement of Forest land if any.</td><td>No Forest land is involved in the proposed project.</td><td></td></tr>
<tr><td>9.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project Site: NIL
Study area:
<table>
<tr><th>Water body</th><th>Distance (in km)</th><th>Direction</th></tr>
<tr><td>Brahmaputra River</td><td>4.8</td><td>S</td></tr>
<tr><td>Gourang River</td><td>2.9</td><td>W</td></tr>
<tr><td>Chak Chaka Lake</td><td>3.3</td><td>E</td></tr>
<tr><td>Deeplai Lake</td><td>5</td><td>N</td></tr>
<tr><td>Dakra Lake</td><td>6</td><td>NE</td></tr>
<tr><td>Dhir Nadi</td><td>6.2</td><td>E</td></tr>
</table>
*Source: - All distances are taken with respect to S.O.</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>I. Toposheet.</td><td></td></tr>
<tr><td>10.</td><td>Archaeological sites monuments/ historical temples etc.</td><td>There are no Archeological Sites present within the study area.</td><td></td></tr>
<tr><td>11.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td><u>Study area:</u>
Name of the ESZ/ESA: Chakrashila Wildlife Sanctuary
Status of Notification: Notified
Distance of project from ESZ: About 2.52 Km
Authenticated map of ESZ projecting distance of ESZ from project site: Will be submitted along with EC application
Status of NBWL approval: Not Applicable, as project is outside ESZ
List of Reserved and protected forests:
<table>
<tr><th>Particulars (RF/PF)</th><th>Distance (In km)</th><th>Direction</th></tr>
<tr><td>Tokrabandha RF</td><td>2.0</td><td>SW</td></tr>
<tr><td>Dudhnath RF</td><td>1.5</td><td>S</td></tr>
<tr><td>Chandardinga RF</td><td>4.5</td><td>SE</td></tr>
<tr><td>Kaprigacha R.F</td><td>9.2</td><td>NW</td></tr>
<tr><td>Shrigram R.F.</td><td>5.9</td><td>NE</td></tr>
<tr><td>Charalkhola R.F.</td><td>9.2</td><td>NE</td></tr>
<tr><td>Sarpamar R.F.</td><td>4.4</td><td>SE</td></tr>
</table>
Chakrashila Wildlife Sanctuary is located at a distance of 5.2 Km from the proposed TPP.</td><td></td></tr>
<tr><td>12.</td><td>Facility envisaged in CRZ area (Only for coastal power plant)</td><td>Not applicable</td><td></td></tr>
<tr><td>13.</td><td>Involvement of Critically Polluted Area / Severely Polluted area as per 2</td><td>Project site is not located within CPA/SPA.</td><td></td></tr>
</table>

S. No.	Particulars	Details	Remarks
	018 CEPI score		

35.4.4: The unit configuration and capacity of proposed project is given as below:

S. No.	Proposed power plant configuration and capacity	Total	Technology adopted
1	(4x800) MW	3200 MW	Ultra Super Critical

35.4.5: The details of the fuel (Coal/Gas/LDO) requirement for the proposed project along with its source and mode of transportation is given as below:

Details	Fuel requirement	Source	Distance from site (Kms)	Mode of Transpor-tation	Coal characteristics (Worst case scenario)	Linkage document
Coal	13.27 MTPA	MCL/ECL/NECL/ Nearby Commercial Coal Mines & e-auction	350-690 Km	Rail	Ash <40 (%) Sulphur <0.5 (%) Moisture-13 (%) GCV- 3200-4300 Kcal/Kg	FSA under Shakti Policy and E-auction

LDO/HSD	24,000 KL/ Annum	Local Market/Vendors	About 50-100	Road	Low Sulphur (3-5% mass)	Local Vendors

35.4.6: Water requirement: The water requirement for the proposed project is estimated as 1,53,600 m^3 /day (56 MCM), out of which 1,53,600 m^3 /day fresh water requirement will be obtained from Brahmaputra River. The application has been submitted to WRD for the permission for drawl of surface water vide letter no. APL/ASSAM/WRD/006 dated 27.11.2025. The water will be transported to the plant site through water pipeline. The specific water consumption for the power plant will be < 2.5 m^3/MWhr.

35.4.7: Power requirement: The power requirement for the proposed project is estimated as 176 MW, which will be obtained from the nearby substation.

35.4.8: Solid and hazardous waste management: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
1	Municipal Solid Waste	Plant Canteen	91	Collected; segregated using color coded waste bin, Organic waste converters (OWC)	Inorganic will be disposed via local municipal authorized vendor & Organic/ Biodegradable waste by OWC.
2	E-waste	IT & Telecom Equipment	3.5	Collected; segregated	Registered Recycler vendor
3	Battery waste from UPS	Automotive & Industrial	7	Collected; segregated	Authorized Vendor
4	Bio medical waste	First aid center	0.12	Collected; segregated	Authorized vendor
5	Hazardous Waste	Plant Operation	Used/ Spent Oil – 100 KL Waste or residues Empty Barrels/Containers/ Conta	-	Registered Recyclers/Pre-processors

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
			minated Liners – 15 TPA Contaminated cotton – 5. 0		with SPCB & Authorized Recyclers

35.4.9: Project Cost: The capital cost of the proposed project is Rs 36,600 Crores and the capital cost for environmental protection measures is proposed as Rs 2,608. Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 26 Crores. The employment generation from the proposed project in Construction phase: 400 (permanent) + 8000 (contractual), Operation phase: 500 (permanent) + 2000 (contractual).

35.4.10: Greenbelt development: Greenbelt for the proposed project will be developed in an area of 147 ha, which is about 25.13 % of the total project area of 585 Ha. A 20 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,67,500 saplings will be planted and nurtured in 147 hectares in 5 years.

35.4.11: Ash management:

Details	Annual generation (MTPA)	Utilization (MTPA)	% of utilization	Balance quantity (MTPA)	No of storage silos with capacity
Ash (Fly & Bottom)	5.31	5.31	100	0	6x2500 MT

Ash pond details- PP has proposed the following ash pond details:

S. No.	Details of Ash pond	Ash pond
1.	Area (Ha)	70
2.	Dyke height (m)	15
3.	Volume (m^3)	105 Lac m^3
4.	Quantity of ash to be disposed (Metric Tons)	115.5 Lakh MT
5.	Expected life of ash pond (number of years and months)	Life of ash dyke is calculated as 20 years
6.	Type lining carried in ash pond: HDPE lining of LDPE lining or clay lining or No lining	HDPE
7.	Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	HCSD/MCSD
8.	Ratio of ash: water in slurry mix (1:_):	65:35
9.	Ash water recycling system (AWRS): Yes or No	Yes

S. No.	Details of Ash pond	Ash pond
10.	Quantity of wastewater from ash pond to be discharged into land or water body (m^3)	0

35.4.12: Baseline data collection: October 2025 to December 2025

Attributes	Parameters	Sampling		Remarks
A. Air		**No. of stations**	**Frequency**	
a. Meteorological parameters	Wind speed, Wind direction, Relative Humidity, Temperature and Rainfall	1	Hourly	Met data logger at site Secondary data from nearest IMD Station, Goalpara / Dhubri
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO & Hg.	11	24 hourly data, twice a week for 12 weeks	As per NAAQS, 2009 by CPCB
B. Noise	Hourly equivalent noise levels	11	One time sampling for 24 hours	IS: 4954- 1968 as adopted by CPCB
C. Water				
Surface water parameters	Physical parameters – (pH, temp, colour, turbidity, odour, taste), Chemical parameters - (Total hardness, calcium, total alkalinity, chloride, magnesium, TDS, sulphate, fluoride, nitrate, iron, aluminium, boron, phenolic compounds, chromium, conductivity, BOD, COD, DO, TSS, Heavy metals like Hg, As, Pb, Ni, Mn, Cd) & microbiological parameters – (Total coliforms, E-COli) etc.	13	During Study Period	During Study Period
Ground water parameters	Physical parameters – (pH, temp, co	11	During Stud	During Study Period

Attributes	Parameters	Sampling		Remarks
	lour, turbidity, od our, taste, TDS), Chemical paramet ers - (Total hardn ess, calcium, total alkalinity, chlorid e, cyanide, magne sium, sulphate, flu oride, nitrate, iro n, aluminium, bor on, phenolic com pounds, chromiu m, poly aromatic hydrocarbons, He avy metals like H g, As, Pb, Ni, Mn, Cd) & microbiolo gical parameters – (Total coliform s, E-coli) etc.		y Period	
D. Land				
a. Soil quality	Particle size distri bution; Texture, p H, Electrical cond uctivity, cation ex change capacity (CEC), Alkali metal s, Sodium Absorp tion Ratio (SAR), Permeability, Poro sity, available nitr ogen, available ph osphorous, potas sium, heavy metal s like – As, Hg et c.	11	During Study Period	During Study Perio d
b. Land use	Location code, To tal project area, T opography, Drain age (natural) Culti vated, forest plan tations, water bo dies, roads and se ttlements	10 km radius	---	During Study Perio d
E. Biological				
a. Aquatic	Primary productivi ty, Aquatic weed	From nearby t ributaries at d	During the S tudy period	One season sampli ng for aquatic biot

Attributes	Parameters	Sampling		Remarks
	s, Enumeration of phytoplankton, zo oplankton Fisheri es Diversity indice s Trophic levels, R are and endanger ed species, etc.	ownstream, a nd also from dug wells clo se to activity site		a, Plankton net, Se diment dredge, De pth sampler
b. Terrestrial	Vegetation – spec ies, list, economic importance, fores t produce, medici nal value Importa nce value index (I VI) of trees and w ild animals	Considering p robable impac t, sampling p oints and nu mber of samp les on establi shed guidelin es on ecologi cal studies ba sed on site ec o- environme nt setting wit hin 10 km rad ius from the p roposed site.	During the S tudy period	One season for terr estrial biota. Prelim inary assessment. Application of indic es, viz. Shannon, si milarity, dominance IVI etc. Point quart er plot-less metho d (random samplin g) for terrestrial ve getation survey.
	Fauna: Rare and e ndangered specie s Sanctuaries / Na tional park / Biosp here reserve Listing of birds, m ammals, reptiles, amphibians etc	For forest stu dies, chronic as well as sho rt- term impa cts.	During the S tudy period	Secondary data fro m Government offi ces, NGOs, publish ed literature Field b inocular.
F. Socio-econo mic parame ters	Demographic stru cture Infrastructu re resource based	Socio-econo mic sample s urvey	---	Community/Village Level survey based on personal intervi ews and questionn aire within 10 KM r adius of project sit e.

35.4.13: Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration: There is no court case/show cause against the proposed project. Further, there is no violation cases under the Environmental Protection Act, 1986, Van (Sanraksha Evam Samvardhan) Adhiniyam, 1980 and The Wildlife (Protection) Act, 1972.

3.4.3. Deliberations by the committee in previous meetings

N/A

3.4.4. Deliberations by the EAC in current meetings

Observation and deliberation of the EAC

35.4.14: The Committee observed and noted the following:

i. Instant proposal is a Greenfield project of 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power Project by M/s. Adani Power Limited, located at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, District Dhubri, Assam.

ii. The committee observed that no alternative sites considered by the Project proponent, since the project area has been allotted specifically for the project by the Assam Power Distribution Company Limited (APDCL), Govt. of Assam. Total land requirement for the proposed project is 585 ha (Private: 118.7 Ha + Govt. 466.3 Ha). No R & R is involved in the proposed project.

iii. There is no involvement of forest land in the proposed project.

iv. Chakrashila Wildlife Sanctuary is located at a distance of 5.2 Km and 2.52 km from Eco sensitive zone from the proposed TPP. There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves and Corridors within 10 km distance from the project site as ascertained from DSS.

v. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.

vi. The committee noted that Bramaputra River, Gourang River and Dhir nadi are located at 4.8 (S), 2.9 (W) and 6.2 (E) km, respectively, from the project boundary. Further, Chak Chaka Lake, Deeplai Lake and Dakra Lake are located at 3.3 (E), 5 (N) and 6 (N to E) km, respectively, from the project boundary. The committee observed some reserved/protected forests such as Dudhnath RF, Tokrabandha RF, Sarpamar R.F, Chandardinga RF, etc. located within the study area.

vii. Coal requirement for the proposed project is about 13.27 MTPA that will be sourced from Nearby Commercial Coal Mines (MCL/ECL/NECL) & e-auction and transported through railway wagons. There will be no road transportation of coal for proposed project. Only LDO/HSD (24,000 KL/ Annum) will be transported by road.

viii. The water requirement for the proposed project is estimated as 1,53,600 m3 /day (56 MCM), out of which 1,53,600 m3 /day fresh water requirement will be obtained from Brahmaputra River. The application has been submitted to WRD for the permission for drawl of surface water vide lr. no. APL/ASSAM/WRD/006 dated 27.11.2025. The water will be transported to the plant site through water pipeline. The specific water consumption for the power plant will be < 2.5 m3/MWhr.

ix. The power requirement for the proposed project is estimated as 176 MW, which will be obtained from the nearby substation.

x. The capital cost of the proposed project is Rs. 36,600 Crores and the capital cost for environmental protection measures is proposed as Rs. 2,608. Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 26 Crores. Employment generation from the proposed project during the Construction phase: 400 (permanent) + 8000 (contractual) and Operation phase: 500 (permanent) + 2000 (contractual).

xi. Greenbelt for the proposed project will be developed in an area of 147 ha, which is about 25.13 % of the total project area of 585 Ha. A 20 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species of not less than 4 feet height will be planted with a density of 2500 trees per hectare. Total no. of 3,67,500 saplings will be planted and nurtured in 147 hectares in 5 years.

xii. About 425 trees shall be cut down in the proposed project. Further, about 167 trees shall be translocated. The committee suggested to prior permission and submit the NOC form the concerned forest Department for the same.4 times saplings will be planted apart from the greenbelt one year in advance against the number of the trees to be felled.

xiii. Ash pond will be developed in 70 ha area (i.e., 0.02 Ha/MW) with 15 m of ash dyke height. About 5.31 MTPA ash (Fly Ash: 4.25 MTPA + Bottom ash: 1.06 MTPA) will be generated and the same will be disposed with 100 % utilization by cement manufacturing, bricks manufacturing industries and filling mines etc. Unused fly ash, if any, will be stored

to ash dyke.

xiv. Various schools and hospital are located within 3.5 km distance from proposed project site. The committee suggested to maintain the sanitation, and provide the clean water (drinking) facility and toilet facility in all schools present within 3.5 km area from proposed site.

xv. EAC asked that PP shall provide the details of environmental receptors present within 10 Km area of the proposed project and the same will be included in the EIA/EMP reports.

xvi. The proposed units (4x800 MW) will incorporate high-efficiency Electrostatic Precipitators (ESP) to control particulate matter and selective catalytic reduction system (SCR) to control the NOx emission. For SO2 emission, 275m high Chimney is proposed. EAC suggested to incorporate detailed SO2 emission norms and their control facility/technology in the EIA/EMP reports.

xvii. The waste water generated (Domestic 22 KLD + Industrial 1996 KLD) in the proposed project shall be treated by STP (30 KLD) and ETP (2400 KLD). Zero liquid discharge (ZLD) facility shall be adopted since the cooling water, blow down water, wastewater and ash water would be recycled back to the system after suitable treatment for reuse.

xviii. The committee observed several water bodies in the vicinity of the project site and suggested to carryout Hydrology, Watershed management and aquatic biodiversity study and the same shall be incorporated in the EIA/EMP reports.

xix. The committee suggested to carry out a socio-economic study and prepare an action plan and submit along with EIA/EMP reports.

xx. The committee noted that the proposed project site lies in an Earthquake-sensitive zone-v as per IS 1893 (Indian Seismic Code), indicating the highest seismic risk area (Very Severe Intensity); therefore, committee suggested to conduct a seismic study and risk assessment through reputed institute and submit along with EIA/EMP report.

Recommendations of the Committee:

35.4.15: The EAC after detailed deliberations on the information submitted and as presented during the meeting ***recommended*** the proposal for grant of ToR for conducting an EIA study for the above project under the provisions of the EIA Notification, 2006, as amended along with the following specific ToR in addition to the generic ToRs.

3.4.5. Recommendation of EAC

Recommended

3.4.6. Details of Terms of Reference

3.4.6.1. Specific

[A] Environmental Management and Biodiversity Conservation	
1.	Project proponent shall explore the feasibility of using air cooled condenser in place of water cooled condenser and details shall be incorporated in the final EIA/EMP report.
2.	Project proponent shall optimize the land requirement for the proposed ash pond and design details of the same shall submitted in the EIA/EMP report.
3.	Certificate from concerned District Magistrate/Executive Engineer from the State Water Resources department (or) any officer authorized by the State Government in this regard shall be submitted stating that project site is not located within flood plain of Bramaputra River and Gourang River corresponding to one in 25 years of flood as per Ministry's O.M. dated 14/02/2022.

4.	PP needs to submit NOC/permission from the State Water resource Department/Irrigation Dept. in case of diversion of any Nala/Stream/water bodies.
5.	All the parameters as mentioned in the National Ambient Air Quality Standards (NAAQS) shall be monitored by the project proponent.
6.	Project proponent shall also obtain recommendations from the State Forest department regarding the impact of project on the nearby Reserved Forests, if any, along with the mitigation measures to be followed.
7.	EIA/EMP study shall take in to consideration the different scenarios arising due to change of coal source, impact on environmental attributes due to change of coal source along with corresponding mitigation measures with EMP budget shall be submitted.
8.	Biodiversity analysis of the project site and study area shall be done through any NABET accredited consultant. The study report shall inter-alia include impact of release of cooling tower water on aquatic life and action plan for complying with the recommendations of the study report shall be submitted.
9.	Project proponent shall commission a study on site specific hydrological studies for area drainage for design of 3200 MW power plant structure through reputed Government institute. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
10.	Project proponent shall prepare an integrated water shed management plan for protection and conservation of water bodies within the study area of the project site. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
11.	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.
12.	PP should submit the detailed plan in tabular format (year-wise) for concurrent afforestation and green belt development in and around the project site covering 25% of the project area as per MoEF&CC OM dated 29.10.2025 of MoEF&CC for greenbelt/green cover requirement for industries. The PP should submit the number of saplings to be planted, names of native species, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling should be of native and few fruit bearing species mainly, of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided.
13.	Action plan for development of three-tier plantation programme (25 % of total project cover area) along the periphery of the project boundary and the coal transportation route shall be provided. PP shall submit concurrent plantation plan. Apart from the greenbelt 4 times saplings will be planted one year in advance against the number of the trees to be felled.
14.	Detailed action plan shall be prepared for maintenance of air pollution control equipment for proposed units and shall be incorporated in the EIA/EMP report.
15.	Details of Ash management plan as per MoEF&CC notification dated 31/12/2021 & its subsequent amendment for the proposed project shall be submitted. MoU signed for ash utilization with companies shall be submitted.

16.	Action plan for dry ash collection system (Bottom ash and Fly ash) shall be submitted.
17.	Action plan for disposal of ash through High Concentration Slurry Disposal (only in emergency conditions) shall be submitted.
18.	Proper protection measures like high-density polyethylene (HDPE) lining, appropriate height of bund and adequate distance between the proposed Ash pond and water body (minimum 60 meters) etc. shall be planned to reduce the possibility of mixing leachate with any freshwater body for ash pond. A high-density Slurry disposal plan shall be prepared.
19.	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. Baseline Study for Heavy metals in Groundwater, Surface water and soil to be carried out and incorporated in EIA/EMP report.
20.	Details pertaining to water source, treatment and discharge should be provided.
21.	PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.
22.	Project Proponent to conduct Environmental Cost Benefit Analysis for the project in EIA/EMP Report.
23.	An action plan shall be prepared for Water shed development within 10 km radius of the plant boundary in consultation with reputed government institution and incorporated in EIA/EMP report.
24.	PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total material handled) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using e-vehicles/LNG/CNG based machinery and trucks for the operation and transportation of Coal and ash and submit an implementation strategy.
25.	PP shall provide the details of transportation of fly ash from the plant, transportation route etc. Further, carry out a traffic study for at least one month and provide the impact of transportation along with the mitigation measures.
26.	PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
27.	Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.
28.	The input parameters for the AAQ modelling and the influence of various combinations of these on the AAQ must be reported in the EIA/EMP Report. In addition to the Wind Rose diagram collected for one season during the preparation of the E.I.A., wind rose diagram for all seasons must be provided using secondary data from sources such as IMD/CPCB etc.
29.	Project proponent shall take all necessary steps to control the Air Quality and take additional mitigation measures for proposed TPP to maintain the Ambient Air Quality values within the limits. The action plan regarding maintaining ambient quality standards (Time weighted average for 24 hours and Annual both) be submitted. Further, project proponent shall submit an undertaking to abide by the provisions of the

	notification number G.S.R 465 (E) dated 11/07/2025 related to SO2 emission norms.
30.	Details of air pollution control devices to be installed in the proposed 4x800 MW TPP along with its maintenance schedule shall be incorporated in EIA/EMP report.
31.	Carbon emission due to proposed TPP and allied carbon sequestration/ carbon offsetting plan be submitted.
32.	PP is advised to implement the 'Ek Ped Maa Ke Naam' Campaign, which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. An action plan in this regard shall be submitted.
[B] Disaster Management	
1.	A Disaster Management Plan shall be prepared and incorporated in the EIA/EMP report.
2.	Project proponent shall carry out study on site specific design earthquake parameters for proposed 3200 MW power project through reputed institute as the proposed project site lies in an Earthquake-sensitive zone-v as per IS 1893 (Indian Seismic Code), indicating the highest seismic risk area (Very Severe Intensity).
3.	Site specific risk assessment study followed by emergency preparedness plan shall be submitted.
[C] Socio-economic Study	
1.	Public Health Action Plan including the provisions for drinking water supply for the local population shall be in the EIA/EMP Report. The status of the existing medical facilities in the project area shall be discussed. Possibilities of strengthening of existing medical facilities, construction of new medical infrastructure etc. will be explored after assessing the needs of the labour force and local populace.
2.	Public consultation (Public Hearing and Written submission) shall be conducted as per the provisions of EIA Notification, 2006 and as amended. As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public Hearing, the Project Proponent is required to submit the detailed activities proposed with year wise budgetary provision (Capital and recurring) for 5 years. Activities proposed shall be part of EMP. Tentative no. of project affected families (if any) shall be identified and accordingly appropriate Rehabilitation &Resettlement plan shall be prepared. The recommendation Socio-economic study may also be considered while planning the activities & budget.
3.	A need based Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.
4.	Demographic details and land use change details in 10 km area shall be submitted.
[D] Miscellaneous	
1.	Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modeling.
2.	PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.

3.	PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
4.	Detailed description of all the court cases along with its current status shall be submitted.
5.	PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. obtained for this project under various Acts, Rules and regulations shall be submitted. Further, all the permissions/MoUs obtained for this project shall be revalidated and submitted along with the EIA/EMP report.
6.	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.
7.	PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of persons to be engaged for the implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
8.	PP should submit the year-wise, activity wise and time-bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.
9.	Activities shall be prepared based on the issues arise during public hearing conducted and fresh written submission with defined timeline and budgetary provisions.
10.	Aerial view video of project site and coal transportation route proposed for this project shall be recorded through drone and be submitted. Along with this plan of 3 tier plantation on coal transportation route shall be submitted.
11.	The PP should ensure that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.
12.	PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
13.	All the certificates viz. involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
14.	Necessary coordination shall be made with concerned SPCB (who is responsible for Compliance of OM dated 14.01.2025) regarding streamlining the implementation of GSR 702 and GSR 703 dated 12.11.2024 through which projects requiring prior EC were exempted from requirement of CTE.

3.4.6.2. Standard

1(d)	**Thermal Power Plants**

Statutory compliance	
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.
2.	Vision document specifying prospective long term plan of the project shall be formulated and submitted.
Details of the Project and Site	
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.
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.
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.
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.
5.	Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
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.
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.
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.
9.	The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
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.
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.

Ecology biodiversity and Environment	
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 and detailed plan submitted.
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.	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.
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.
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.
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.
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
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.
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.
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.
11.	Feasibility of near zero discharge concept shall be critically examined and its details submitted.
1	Optimization of Cycles of Concentration (COC) along with other water conservation measures in the

2.	project shall be specified.
13.	Plan for recirculation of ash pond water and its implementation shall be submitted.
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.
15.	Hazards Characterization: Past incidents of hazard events within 10km radius of project area with detailed analysis of causes and probability of reoccurrence
Environmental Baseline study and mitigation measures	
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 wins speed analysisand 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.
2.	A list of industries existing and proposed in the study area shall be furnished.
3.	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.	Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
5.	Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.
6.	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
7.	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.
8.	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.
9.	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.
Environmental Management Plan	
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.
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.
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.
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.
Green belt development	
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 CO2 and other gaseous pollutants and hence a stratified green belt should be developed.
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
Socio-economic activities	
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.
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.
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.

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.
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). CERdetails done in the past should be clearly spelt out in case of expansion projects.
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.	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.
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 impact on their health due to working in non-conducive 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.
Corporate Environment Policy	
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.
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.
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.
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.
Miscellaneous	
1.	All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.
2.	Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall

	invariably be furnished.

4. Any Other Item(s)

N/A

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Dr Santoshkumar Hampannavar	Member (EAC)	san**********@yahoo.com	Absent
2	Shri K B Biswas	Member (EAC)	bis*********@gmail.com	Present
3	Shri Mahi Pal Singh	Member (EAC)	mps********@nic.in	Present
4	Sundar Ramanathan	Scientist - F	r.s*****@nic.in	Present
5	Sh Inder Pal Singh Matharu IFS	Chairman, EAC	mat********@gmail.com	Present
6	Sh Lalit Kapur	Member (EAC)	lka********@yahoo.com	Present
7	Dr Umesh Jagannathrao Kahalekar	Member (EAC)	uka*******@gmail.com	Present
8	Sh Savalge Chandrasekhar	Member (EAC)	sav*****@gmail.com	Absent
9	Prof Shyam Shanker Singh	Member (EAC)	sin********@gmail.com	Present
10	Dr Vinod Agrawal	Member (EAC)	vin*****@yahoo.com	Present
11	Shri Harmeet Sahaney	Member (EAC)	har**********@imd.gov.in	Absent
12	Prof R M Bhattacharjee	Member (EAC)	rmb**********@iitism.ac.in	Absent
13	Shri Prasoon Gargava	Scientist F	pra*********@nic.in	Present

Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Thermal sector)

Date of zero draft MoM sent to Chairman: 31/12/2025
Approval by Chairman: 02/01/2026
Uploading on PARIVESH: 02/01/2026

SUMMARY RECORD OF THE THIRTY FOURTH (35th) MEETING OF EXPERT APPRAISAL COMMITTEE (EAC) HELD ON 24TH DECEMBER, 2025 FOR ENVIRONMENT APPRAISAL OF THERMAL SECTOR PROJECTS THROUGH VIRTUAL MODE.

24th December, 2025 [Wednesday]

At the outset, Shri. Inder Pal Singh Matharu (I.F.S Retd.), Chairman, Expert Appraisal Committee (Thermal Power & Coal Mining) welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of EAC members who participated in the meeting is at **Annexure – I**.

Confirmation of the Minutes of the 34th Meeting of the EAC (Thermal): The minutes of the 34th Meeting of the EAC (Thermal) held on 9th Decemberber, 2025 has been confirmed by the EAC as uploaded on PARIVESH.

Agenda item no. 35.1

35.1: 2x660 MW Udangudi Supercritical Thermal Power Project (Stage-1) by **M/s Tamil Nadu Power Generation Corporation Ltd (TNPGCL)** at Udangudi Village, Tiruchendur Taluk, Tuticorin District, Tamil Nadu - **Environmental Clearance (EC) under S.O. 1247 (E) dated 18/03/2021 – regarding**

[Proposal No: IA/TN/THE/557542/2025; F. No. J-13012/19/2008-IA.II(T)]

35.1.1: M/s. Tamil Nadu Power Generation Corporation Limited (TNPGCL) has made an online application vide proposal no. IA/TN/THE/557542/2025 dated 08.11.2025 along with copy of EIA/EMP report, Form and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 appraised at Central Level.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting are given as under:

35.1.2: The project site mentioned above have obtained following Environmental Clearances from MoEF&CC:

a. Thermal Power Plant

- MoEF&CC accorded EC to TANGEDCO on 14/10/2013 for setting up of 2x800 MW Udangadi Super Critical Imported Coal Based TPP at village Udangudi, in Thiruchendur Taluk, in Thoothukudi district, in Tamil Nadu. Subsequently, EC was amended on

26/07/2017 for reduction of unit sizes from 2 x 800 MW to 2 x 660 MW. Thereafter, validity extension of EC was accorded on 25/09/2020 till 13/10/2023.

- As per amendment to the EIA Notification, 2006 dated 18/01/2021, the period from the 1st April, 2020 to the 31st March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19). In view of this, validity of the above EC was till 13/10/2024.
- Implementation status of the above project was only 82.85 % and the project was not commissioned within the validity period of the EC.
- Proponent has obtained fresh Terms of Reference for the above project vide proposal no. IA/TN/THE/468592/2024 dated 29/07/2024 with change of fuel mix i.e**., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion.**
- Instant proposal is for seeking fresh Environmental Clearance for 2x660 MW to complete the commissioning of the constructed facilities as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 which states that "where construction and commissioning of proposed activities have not been completed within the validity period of the Environmental Clearance (EC) and a fresh application for EC has been submitted due to expiry of the said period of the EC, the concerned Expert Appraisal Committee or State Level Expert Committee, as the case may be, may exempt the requirement of public hearing subject to the condition that the project has been implemented not less than fifty percentage in its physical form or construction".
- CRZ clearance is not applicable for Main plant side as submitted by the proponent.

b. Interlinked project

- Interlinked project of Coal Jetty, Pipe Conveyor, Cooling water intake and outfall systems had separate EC + CRZ Clearance MoEF&CC vide EC ID - EC22A004TN156490, and File No. 10-66/2020 -IA.III dated 03.08.2022.

35.1.3: Status of Certified Compliance Report: The Status of compliance of earlier EC for the TPP was obtained from Regional Office, Chennai vide letter no. F. No. EP/12.1/8/2013-2014/TN/518, dated 01.04.2025 in the name of M/s. Tamil Nadu Generation and Distribution Corporation (TANGEDCO). The Action taken report regarding the partially/non-complied conditions was submitted to Regional Office, MoEF&CC, Chennai vide letter no. F. No. Ep/12.1/8/2013-2014/TN/16 dated 07.01.2025 MoEF&CC (RO), Chennai evaluated the same and has issued letter dated 01.04.2025. The details of the observations made by RO in the report dated 01.04.2025 along with its re-assessment / present status as furnished by the PP is given as below.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1.	Degenerated mangrove located in the study area (if any) shall be adopted and regenerated in consultation with the concerned Dept. of the State Government.	The project proponent has consented to engage with the state forest department regarding the adaptation of the	14.10.2013	Specific condition (xxiii)	-	The project is located along the seashore, with the nearest mangrove area identified at a distance of 8.12 km. As per the communication

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
		mangrove area				from the Tamil Nadu Forest Department Ref: C.No. D/1761/2025 dated 22.05.2025), there is no suitable area within the project site for undertaking mangrove plantation activities. Therefore, mangrove plantation is proposed in the backwater canal area located on the northern side of the Tiruchendur Subramania Swamy Temple, with the objective of enhancing coastal ecology and contributing to sustainable environmental management. The mangrove management plan is submitted**.**
2.	Continuous monitoring of marine biology during Construction and operational period of power plant shall be undertaken by an institute of repute like Faculty of Marine Sciences, Annamalai University. In addition, monitoring of surface water quality in the vicinity of the power plant in and around 3.0 kms radius shall also be regularly conducted and	Continuous monitoring of marine biology, as required, has not been conducted	14.10.2013	Specific condition (xxxiii)		Continuous monitoring of marine biology is being conducted by the Fisheries college and Research Institute, Tuticorin. Samples were collected on 25.07.2025 and the report is submitted**.**

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of groundwater and records maintained. Monitoring for heavy metals in ground water shall be undertaken.					
3	An Environmental Cell comprising of at least one expert in Marine biologist and an ecologist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	At present, a marine biologist and an ecologist have not been incorporated into the environmental cell.	14.10.2013	Specific condition (xxxiv)	-	At present Fisheries college and Research Institute, Tuticorin is engaged for carrying out the marine monitoring work. EM Cell with expert in Marine biologist and ecologist will be formed once the power plant starts.
4	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	The project proponent (PP) did not submit the vision document that outlines the prospective development plan for the site.	14.10.2013		General condition (i)	It is planned to establish 2 x 660 MW each as stage- II & stage-III as expansion project. The vision document is submitted**.**
5	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned	There were no supporting documents provided by PP concerning the advertisements placed in the local	14.10.2013		General condition (xi)	Notice for issuance of EC was published in two local newspapers (Tamil & English) copies is submitted.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	newspapers.				
6	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM2.5 & PM10), SO2, Nox (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	It has been noted that a copy of the Environmental Clearance (EC) is not made available on the TANGEDCO website.	14.10.2013		General condition (xiii)	The website is opened and the clearances are uploaded. Since the plant is not operation. Online continuous monitoring system are not initiated. However, six months compliance report are submitted Environmental Clearances (Main Plant and Coal Jetty) are available in www.tnpdcl.org
7	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the	Form-V as is mandated has not been submitted by the project proponent	14.10.2013	-	General condition (xiv)	Six months compliance report prepared and submitted. Form-V will be submitted after commissioning of the project.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.					
Partial compliances						
1	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	The project proponent did not submit the required six-monthly reports on the implementation status of the prescribed environmental safeguards to the Ministry of Environment and Forests, its Regional Office, MoEF&CC periodically	14.10.2013		General condition (xv)	Six months compliance report are uploaded in MoEF website and hard copies sent to RO/MoEF and TNPCB. The latest copy of six months report for the period from April to September 2025 is submitted.
2	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the	Environmental Clearance (EC) is not made available on the TANGEDCO website. Additionally, monitoring data was not displayed at the company's main entrance.	14.10.2013		General condition (xvi)	The website is opened and the clearances are uploaded. EC Clearance (Main plant & Coal Jetty) are available in www.tnpdcl.org permanent Air monitoring system location are finalized in consultation with Pollution Control Board and work under progress.

S. No.	Non-compliances details	Observations by RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	same from time to time at least six-monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.					
3	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	The annual expenditures have not been communicated to the Ministry	14.10.2013		General condition (xvii)	Fund allotted for Environmental Protection measures has not been diverted to other works. The annual report of the environmental protection will be submitted in future.

35.1.4: Status of FGD installation

In addition to the above, status of installation of Flue Gas Desulphurization shall be furnished as per the MoEF&CC Notification dated 11/07/2025:

i. Categorization details of TPP : **Category –C**

ii. Sulphur content of the coal to be fired in the boiler: a. Imported coal Sulphur content – 0.52%; b. Domestic coal Sulphur content – 0.31%

iii. Status of FGD installation for existing unit – Not applicable

iv. Action plan for installation of new stack in compliance to the notification number GSR 742 (E) dated the 30/08/1990 for the project: One bi-flue stack of 275 m shall be installed for 2 x 660 MW plant.

35.1.5: The details of the ToR is furnished as below:

Proposal no. with date	Consideration	Details	Date of accord	ToR Validity
IA/TN/THE/468592/2024 dated 08.04.2024	11th meeting of EAC – Thermal held on 27-28th June 2024	Terms of Reference	29.7.2024	4 years
IA/TN/THE/541675/2025 dated 04.07.2025	-	Application for Transfer of ToR - Form-8	26.07.2025	-

35.1.6: Environmental Site Settings

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>380 ha [Government land: 380 ha]</td><td>Land use: Industrial</td></tr>
<tr><td>2.</td><td>Land use break up</td><td>
<table>
<tr><th>S. No.</th><th>Purpose</th><th>Area in Ha</th></tr>
<tr><td>1</td><td>Main Plant, Transformer yard and Switch yard</td><td>26.305</td></tr>
<tr><td>2</td><td>Coal Yard</td><td>26.305</td></tr>
<tr><td>3</td><td>Cooling Water System</td><td>17.402</td></tr>
<tr><td>4</td><td>Fuel oil system</td><td>1.699</td></tr>
<tr><td>5</td><td>Water system including Chlorination system</td><td>7.782</td></tr>
<tr><td>6</td><td>Ash Dyke</td><td>48.562</td></tr>
<tr><td>7</td><td>Administration building and other non-plant buildings</td><td>4.719</td></tr>
<tr><td>8</td><td>Miscellaneous such as Corridor for CW piping, Ash piping, Intake & outfall, Silo & its utility building, Workshop, Stores, Roads etc.</td><td>80.168</td></tr>
<tr><td>9</td><td>Green Belt</td><td>167.058 (about 44% of total area)</td></tr>
<tr><td colspan="2">Total</td><td>380</td></tr>
</table>
</td><td></td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014 & 19/02/2025</td><td>Entire land is under the possession of the project proponent.</td><td>Land document submitted with application.</td></tr>
<tr><td>4.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: Nil

Study Area:
<table>
<tr><th>S.No.</th><th>Name</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td colspan="4">Habitation</td></tr>
<tr><td>1.</td><td>Udangudi village</td><td>4.85</td><td>West</td></tr>
<tr><td>2.</td><td>Kallamoli</td><td>0.54</td><td>East</td></tr>
<tr><td>3.</td><td>Kulasekharapatnam</td><td>2.20</td><td>South</td></tr>
<tr><td>4.</td><td>Nainarpathu</td><td>2.02</td><td>NW</td></tr>
<tr><td>5.</td><td>Shirgaj/Sirkatchi</td><td>2.02</td><td>NNW</td></tr>
<tr><td>6.</td><td>Arnaghudi</td><td>1.84</td><td>West</td></tr>
<tr><td>7.</td><td>Manapad</td><td>4.79</td><td>SSE</td></tr>
<tr><td>8.</td><td>Vellalanvilai</td><td>3.7</td><td>NW</td></tr>
<tr><td>9.</td><td>Paramankurichi</td><td>5.17</td><td>NW</td></tr>
<tr><td>10.</td><td>Soosaikudiyruppu</td><td>3.56</td><td>NE</td></tr>
</table>
</td><td>R & R is not applicable</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>11.</td><td>Tiruchendur(Town panchayat)</td><td>7.72</td><td>NE</td></tr>
<tr><td>12.</td><td>Virapandianpattinam</td><td>9.01</td><td>NNE</td></tr>
<tr><td>13.</td><td>Venkatramanujapuram</td><td>6.2</td><td>WNW</td></tr>
<tr><td>14.</td><td>Megnarpuram</td><td>8.47</td><td>NW</td></tr>
</table>
</td><td></td></tr>
<tr><td>5.</td><td>Existence of school and hospitals if any.</td><td>Study area:
<table>
<tr><th colspan="4">Schools</th></tr>
<tr><td>1.</td><td>T.D.T.A Higher Secondary School</td><td>2.78</td><td>West</td></tr>
<tr><td>2.</td><td>Sri Ramakrishna Chidambareswarar Higher Secondary School</td><td>3.81</td><td>West</td></tr>
<tr><td>3.</td><td>Salma Matriculation school</td><td>2.78</td><td>West Northwest</td></tr>
<tr><th colspan="4">Hospitals</th></tr>
<tr><td>1.</td><td>Sreedhar hospital</td><td>2.03</td><td>West</td></tr>
<tr><td>2.</td><td>Udangudi Government hospital</td><td>2.02</td><td>West</td></tr>
<tr><td>3.</td><td>Government hospital, Kulasekharapatnam</td><td>2.07</td><td>South</td></tr>
</table>
</td><td></td></tr>
<tr><td>6.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>8°26'59.90"N</td><td>78° 4'12.87"E</td></tr>
<tr><td>2.</td><td>8°26'53.09"N</td><td>78° 4'18.22"E</td></tr>
<tr><td>3.</td><td>8°26'52.58"N</td><td>78° 4'18.77"E</td></tr>
<tr><td>4.</td><td>8°26'55.36"N</td><td>78° 4'22.12"E</td></tr>
<tr><td>5.</td><td>8°26'52.11"N</td><td>78° 4'24.36"E</td></tr>
<tr><td>6.</td><td>8°26'48.96"N</td><td>78° 4'21.30"E</td></tr>
<tr><td>7.</td><td>8°26'37.67"N</td><td>78° 4'16.35"E</td></tr>
<tr><td>8.</td><td>8°26'37.46"N</td><td>78° 4'16.46"E</td></tr>
<tr><td>9.</td><td>8°26'35.08"N</td><td>78° 4'22.09"E</td></tr>
<tr><td>10.</td><td>8°26'32.63"N</td><td>78° 4'20.31"E</td></tr>
<tr><td>11.</td><td>8°26'32.25"N</td><td>78° 4'19.90"E</td></tr>
<tr><td>12.</td><td>8°26'31.08"N</td><td>78° 4'19.09"E</td></tr>
<tr><td>13.</td><td>8°26'30.52"N</td><td>78° 4'17.63"E</td></tr>
<tr><td>14.</td><td>8°26'29.76"N</td><td>78° 4'16.39"E</td></tr>
<tr><td>15.</td><td>8°26'29.31"N</td><td>78° 4'16.01"E</td></tr>
<tr><td>16.</td><td>8°26'28.80"N</td><td>78° 4'15.89"E</td></tr>
<tr><td>17.</td><td>8°26'28.16"N</td><td>78° 4'15.98"E</td></tr>
<tr><td>18.</td><td>8°26'27.46"N</td><td>78° 4'15.38"E</td></tr>
<tr><td>19.</td><td>8°26'28.98"N</td><td>78° 4'12.89"E</td></tr>
<tr><td>20.</td><td>8°26'26.35"N</td><td>78° 4'11.97"E</td></tr>
<tr><td>21.</td><td>8°26'22.88"N</td><td>78° 4'9.42"E</td></tr>
<tr><td>22.</td><td>8°26'20.47"N</td><td>78° 4'6.63"E</td></tr>
<tr><td>23.</td><td>8°26'10.87"N</td><td>78° 3'59.69"E</td></tr>
<tr><td>24.</td><td>8°26'13.79"N</td><td>78° 3'58.01"E</td></tr>
<tr><td>25.</td><td>8°26'12.56"N</td><td>78° 3'56.93"E</td></tr>
<tr><td>26.</td><td>8°26'10.69"N</td><td>78° 3'58.39"E</td></tr>
<tr><td>27.</td><td>8°26'6.42"N</td><td>78° 3'58.25"E</td></tr>
</table>
</td><td></td></tr>
</table>

Sl. No.	Particulars	Details			Remarks
		28.	8°26'3.97"N	78° 3'57.17"E	
		29.	8°26'3.42"N	78° 3'58.42"E	
		30.	8°25'59.62"N	78° 3'56.37"E	
		31.	8°25'56.43"N	78° 3'52.08"E	
		32.	8°25'57.57"N	78° 3'50.03"E	
		33.	8°25'53.02"N	78° 3'46.93"E	
		34.	8°25'49.25"N	78° 3'44.78"E	
		35.	8°25'47.69"N	78° 3'47.18"E	
		36.	8°25'41.67"N	78° 3'43.31"E	
		37.	8°25'41.37"N	78° 3'40.99"E	
		38.	8°25'36.76"N	78° 3'35.18"E	
		39.	8°25'21.33"N	78° 3'30.30"E	
		40.	8°25'17.80"N	78° 3'28.57"E	
		41.	8°25'13.18"N	78° 3'25.38"E	
		42.	8°25'12.93"N	78° 3'22.76"E	
		43.	8°25'12.25"N	78° 3'19.78"E	
		44.	8°25'11.13"N	78° 3'16.82"E	
		45.	8°25'9.67"N	78° 3'14.23"E	
		46.	8°25'10.22"N	78° 3'12.54"E	
		47.	8°25'10.18"N	78° 3'11.14"E	
		48.	8°25'10.08"N	78° 3'10.99"E	
		49.	8°25'9.49"N	78° 3'10.71"E	
		50.	8°25'9.39"N	78° 3'10.59"E	
		51.	8°25'10.37"N	78° 3'8.26"E	
		52.	8°25'10.17"N	78° 3'6.53"E	
		53.	8°25'10.74"N	78° 3'6.81"E	
		54.	8°25'10.88"N	78° 3'6.81"E	
		55.	8°25'11.53"N	78° 3'2.39"E	
		56.	8°25'11.63"N	78° 3'2.29"E	
		57.	8°25'14.17"N	78° 3'5.11"E	
		58.	8°25'14.33"N	78° 3'5.16"E	
		59.	8°25'15.36"N	78° 3'2.40"E	
		60.	8°25'15.60"N	78° 3'1.96"E	
		61.	8°25'15.85"N	78° 3'1.68"E	
		62.	8°25'16.51"N	78° 3'2.00"E	
		63.	8°25'20.77"N	78° 3'3.27"E	
		64.	8°25'28.83"N	78° 3'5.07"E	
		65.	8°25'29.29"N	78° 3'4.84"E	
		66.	8°25'30.02"N	78° 3'3.51"E	
		67.	8°25'32.25"N	78° 3'3.90"E	
		68.	8°25'35.47"N	78° 3'5.40"E	
		69.	8°25'37.21"N	78° 3'5.87"E	
		70.	8°25'42.21"N	78° 3'6.22"E	
		71.	8°25'42.98"N	78° 3'5.73"E	
		72.	8°25'45.70"N	78° 3'5.89"E	
		73.	8°25'47.49"N	78° 3'6.35"E	

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>74.</td><td>8°25'47.95"N</td><td>78° 3'5.91"E</td></tr>
<tr><td>75.</td><td>8°25'47.24"N</td><td>78° 3'3.22"E</td></tr>
<tr><td>76.</td><td>8°25'47.30"N</td><td>78° 3'2.99"E</td></tr>
<tr><td>77.</td><td>8°25'49.66"N</td><td>78° 3'3.94"E</td></tr>
<tr><td>78.</td><td>8°25'52.75"N</td><td>78° 3'5.69"E</td></tr>
<tr><td>79.</td><td>8°25'54.98"N</td><td>78° 3'6.34"E</td></tr>
<tr><td>80.</td><td>8°26'6.32"N</td><td>78° 3'12.20"E</td></tr>
<tr><td>81.</td><td>8°26'21.70"N</td><td>78° 3'25.87"E</td></tr>
<tr><td>82.</td><td>8°26'29.20"N</td><td>78° 3'31.36"E</td></tr>
<tr><td>83.</td><td>8°26'38.48"N</td><td>78° 3'39.88"E</td></tr>
<tr><td>84.</td><td>8°26'40.81"N</td><td>78° 3'43.25"E</td></tr>
<tr><td>85.</td><td>8°26'41.36"N</td><td>78° 3'45.80"E</td></tr>
<tr><td>86.</td><td>8°26'48.35"N</td><td>78° 3'58.46"E</td></tr>
<tr><td>87.</td><td>8°26'26.13"N</td><td>78° 4'16.57"E</td></tr>
<tr><td>88.</td><td>8°26'35.30"N</td><td>78° 4'23.46"E</td></tr>
<tr><td>89.</td><td>8°26'18.59"N</td><td>78° 4'43.64"E</td></tr>
<tr><td>90.</td><td>8°26'9.35"N</td><td>78° 4'35.64"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>7.</td><td>Elevation of the project site</td><td>2 – 10 m above mean sea level</td><td></td></tr>
<tr><td>8.</td><td>Involvement of Forest land if any.</td><td>Status of stage I Forest Clearance: Not applicable
Area of the forest land involved: Nil</td><td></td></tr>
<tr><td>9.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site:
Name – Ellapanaickan surplus course channel adjacent to the project site. A copy of Public Work Department NOC is submitted.
Study area:
<table>
<tr><th>Waterbody</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Karumeni river</td><td>3.75 km</td><td>South</td></tr>
<tr><td>Thangai kulam</td><td>6.08 km</td><td>West</td></tr>
<tr><td>Ellapanaickan kulam</td><td>4 km</td><td>North</td></tr>
<tr><td>Avudayarkulam</td><td>7 km</td><td>Northeast</td></tr>
<tr><td>Kulasai kulam</td><td>1.66 km</td><td>South</td></tr>
</table>
</td><td>HFL data of Karumeni river is +3.5 m. A copy of letter is submitted.</td></tr>
<tr><td>10.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study</td><td><u>Study area – Nil</u>

<u>List of Reserved and protected forests:</u>
Kuthiraimozhi Theri R.F – 7.8 km (NW)

In addition to the above following is present within the study area:
Mangroves – 8.12 km (NE),
Sand dunes – 0.5 km (E)</td><td></td></tr>
</table>

Sl. No.	Particulars	Details	Remarks
	area		
11.	Archaeological sites monuments/ historical temples etc.	There is no ASI site within the study area. However, there is Tiruchendur temple located at a distance of 8.1 km in NE direction.	
12.	Facility envisaged in CRZ area (Only for coastal power plant)	Name of the facility in CRZ area **Coal jetty, Sea water intake and outfall pipeline** Recommendations of CZMA **Obtained** Status of CRZ clearance EC and CRZ clearance obtained from MoEF&CC vide Lr. No. - EC22A004TN156490, 10-66/2020-IA.III dt. 03.08.2022.	CRZ map indicating HTL/LTL demarcated by the authorized agency in 1:4000 scale has been submitted.
13.	Involvement of Critically Polluted Area / Severely Polluted area as per 2018 CEPI score	Nil within 10 km radius	

35.1.7: The unit configuration and capacity of existing and proposed project is given as below

S. No.	Existing power plant configuration and capacity	Proposed power plant configuration and capacity	Total	Technology adopted
1.	-	2 x 660 MW	1320 MW	Super critical

35.1.8: The details of the fuel (coal) requirement for the proposed project/ expansion cum proposed project along with its source and mode of transportation is given as below:

Details	Fuel requirement	Source	Distance from site (km)	Mode of transportation	Coal characteristics	Linkage document
Proposed TPP	5893000 MT	Import & Indigenous	1.2	Pipe conveyor	Ash - (Imported coal: 8.09% and Domestic coal:43.5%) Sulphur – (Imported	-

					coal-0.52% and Domestic coal-0.31%) Moisture (16.25%) GCV – 4350 Kcal/Kg	

35.1.9: The water requirement for the proposed project is estimated as 2,81,808 m^3 /day, out of which 87,168 m^3/day of fresh water requirement will be drawn from desalination plant and the remaining 1,94,640m^3 /day will be met from the sea. The water will be transported to the plant site through pipeline. Desalination Plant Capacity is 16 MLD.

35.1.10: The power requirement for the proposed project is estimated as 92 MW, which will be sourced from plant itself.

35.1.11: Baseline Environmental Studies

Period	March – May 2024	Additional study (if any)
AAQ parameters at 8 Locations (min and max)	$PM_{2.5}$ = 16 To 27 µg/m^3 PM_{10} = 33 To 58 µg/m^3 SO_2 = BDL (<5) to 8.9 µg/m^3 NO_x = 10.4 To 17.7 µg/m^3 CO = BDL (<0.1) to 0.28 mg/m^3	
Incremental GLC Level	PM_{10} = 2.01 µg/m^3 SO_2 = 6.7 µg/m^3 NO_x = 6.541 µg/m^3	
Ground water quality at 18 locations	pH: 6.84 to 8.02, Total Hardness: 248 to 9100 mg/l, Chlorides: 118 to 7998 mg/l, Fluoride: 0.22 to 0.47 mg/l. Heavy metals are Below Detection Limit (BDL)	
Surface water quality at 3 locations	pH: 7.42 to 7.84; DO: 4.8 to 5.9 mg/l and BOD: BDL (<2) to 2.6 mg/l. COD from 16 to 23 mg/l.	
Effluent generation details and its treatment	Effluent generation from TPP – 720 KLD Mode of treatment & reuse Effluent generation from Transformer yard, TG hall, floor wash, fuel oil and coal handling area of about 720 KLD will be transferred/ collected/ treated in the Effluent Treatment plant of capacity 720 KLD and reused for horticulture.	

<table>
<tr><th>Period</th><th>March – May 2024</th><th>Additional study (if any)</th></tr>
<tr><td></td><td>Domestic wastewater generation – 24.5 KLD

Mode of treatment & reuse

Quantity of sewage generated during operational phase will be 24.5KLD which will be treated through sequential batch reactor (SBR) based Sewage Treatment Plant of capacity 40 KLD. Treated wastewater from STP will be reused for horticulture.</td><td></td></tr>
<tr><td>Noise levels Leq
(Day and Night)</td><td>47.5 to 53.7 dBA for the day time and 40.8 to 44.5 dBA for the Night time.</td><td></td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at SH 176 (Tuticorin - Tiruchendur - Kanyakumari Road) which is approximately 0.12 km (E) from the plant site.

Transportation of raw material will be done 15% by road.

Existing PCU is 901.6 PCU/hr on SH 176 and existing level of service (LOS) is:

<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH-176</td><td>901.6</td><td>1500</td><td>0.60</td><td>A</td></tr>
</table>

PCU load after proposed project will be 901.6 (Existing) + 24.9 (Additional) PCU/hr and level of service (LOS) will be:

<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH-176</td><td>926.5</td><td>1500</td><td>0.61</td><td>B</td></tr>
</table>

* Note: Capacity as per IRC-106-1990 Guide line for capacity for roads. (Only for road transport)

Conclusion: The level of service will High, stable</td><td></td></tr>
</table>

Period	March – May 2024	Additional study (if any)
	flow (B) after including additional traffic due to proposed project.	
Soil Quality at 8 Locations	Bulk density: 1.38 to 1.57 gm/cc; pH range 7.33 to 7.84; Electrical conductivity (EC); 0.097 to 0.214 mS/cm; calcium content: 14.8 to 19 m.eq/100g; sodium: 1.08 to 1.84 m.eq /100g; potassium: 258 to 391 kg/ha; Nitrogen: 45 to 94 kg/ha; Phosphorous: 21.1 to 46.9 kg/ha; Cation Exchange Capacity (CEC) for Ca: 14.8 to 19 meq/100gm; Magnesium: 4.89 to 6.87 m.eq/100g; Sulphur: 14 to 34 mg/kg; Organic Matter: 0.51 to 0.91%	
Flora and fauna	List of schedule I fauna and endangered Flora if any. If yes, status of site-specific wildlife conservation plan.	The DFO accepted the conservation plan and forwarded the same to the Principal Chief Conservator of Forests & Chief Wild life Warden/ Chennai through the Conservator of Forests and field Director/Tirunelveli and the copy of letter is included in EIA/EMP report.
Hydrogeology study	Ground water is available in phreatic aquifers in the study area of 10 km radius and in general is colourless, odourless and slightly alkaline. The conductivity ranges from 994 to 1917 µS/cm and major parts are having multilayer aquifers system. Hence, the water quality varies with respect to depth of tapping. This observed that most of the groundwater suitable for drinking except groundwater collected interface line.	Hydrological report is included in EIA/EMP report.
Impact study on bio-diversity and aquatic ecology	Recommendations of study report:	The detailed study for Impact on bio-diversity and aquatic ecology was carried out and included in EIA/EMP report.
Risk assessment Study	Recommendations of Risk assessment report with mitigation measures	Risk Assessment study was carried out and included in EIA/EMP report**.**
Marine impact assessment	The study report on marine diversity/ecology is assigned to Fisheries College and Research Institute, Tuticorin and included in EIA/EMP	

Period	March – May 2024	Additional study (if any)
study (Only for coastal based TPPs)	report.	

35.1.12: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sr. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment	Disposal
1.	Solid waste	Annual Ash generation (2 x 660 MW)	1.31 million TPA	-	Slurry disposal
2.	Solid waste	Annual Bottom ash generation (2 x 660 MW)	0.26 million TPA	-	Slurry disposal
3.	Solid waste	Annual Fly ash generation (2 x 660 MW)	1.054 million TPA	-	Ash is transported in a pneumatic pressure conveying system to fly ash silo from ESP hoppers
4.	Domestic Solid waste	Bio-degradable waste	15.914 TPA	Organic Waste Convertor	Disposed through Udangudi town panchayat
5.	Domestic Solid waste	Non bio degradable waste	23.871 TPA	-	Disposed through Udangudi town panchayat
6.	Domestic Solid waste	Sludge from STP	1.29 TPA	-	Manure for green belt
7.	Solid waste	ETP Sludge	206 TPA	-	TSDF site
Hazardous waste					
8.	Glass Wool	Overhauling	1 TPA	-	TSDF site
9.	Resin	DM plant	2 TPA	-	TSDF site
10.	Waste oil	Maintenance	1.6 TPA	-	TSDF site

35.1.13: Public consultation: The project is exempted from conducting fresh public hearing as per provisions of the MoEF&CC Notification S. O. 1247(E) dated 18 March 2021. However, public consultation through written responses have been prescribed. Public Consultation (Written submission only) conducted by TNPCB by widely publicizing the draft EIA/EMP report/Summary on the TNPCB website on 2.01.2025 and TNPCB communicated to MoEF&CC, New Delhi statin that no views in writing had been received by them.

Action plan as per MoEF&CC O.M. dated 30/09/2020

Action plan with budgetary allocation

Sl.No.	Key area Identified under Socio-EMP (CER) based on issue raised during Base Assessment Survey	Time bound (Year wise) Expenditure (Rs. in Crore)			Budget
		FY 2024-25	FY 2025-26	FY 2026-27	
A	Education in Government Schools in nearby villages	3.64	3.64	3.64	10.925
B	Health in Government hospitals in nearby villages	0.5	0.5	1	2
C	Solar power to nearby villages	2	2	1	5
D	Provisions OM No. 22-65/2017-IA.III dated 30.09.2020 for public hearing related issues including Fishermen welfare fund	-	-	-	3.92
Total budget		6.14	6.14	5.64	**21.845**

35.1.14: Cost of the project: The capital cost of the proposed project is Rs. 13076.705 Crore and the capital cost for environmental protection measures is proposed as Rs. 993.17 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 61.61 Crore. The employment generation from the proposed project / expansion is 545. The details of cost for environmental protection measures is as follows:

Sl. No	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost (Rs. in Crores)	Recurring Cost (Rs. in Crores)
1	Air i) ESP ii) Dust Suppression system for coal handling area iii) Dry fog system iv) Crushing and Transfer tower areas v) Boiler modification for Low NO_x Burner	 60.00 3.00 1.0 0.5 442.00	 12.00 0.60 0.2 0.2 8.84
2	RCC Chimney	60.00	6.00
3	Cooling towers	60.00	6.00
4	Bottom ash and fly ash collection, storage and disposal system	160.00	16.00
5	ETP & STP	3.00	0.30
6	Greenbelt development	4.17	0.42
7	Pollution monitoring instrument / equipment	3.00	0.20
8	Outfall arrangements	120	2
9	Energy conservation measures (Solar panel)	3.6	0.5
10	Solid waste management (including OWC)	0.2	0.05

Sl. No	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost (Rs. in Crores)	Recurring Cost (Rs. in Crores)
11	Others (Socioeconomic development) i. Occupational health & services (for establishment of PHC at site) ii. Public consultation issues	37.00 2.00	7.30 1
12	PH/Consultation issues (CER) amount	32.694	-
13	Conservation plan for Schedule-I species	0.40	-
14	Mangrove management plan	0.25	-
15	Sand dune management plan	0.35	-
	Total	**993.17**	**61.61**

35.1.15: Green belt development: Proposed greenbelt will be developed in 167.058 ha which is about 44% of the total project area. Thus, total of 167.058 ha area (44% of total project area) will be developed as greenbelt. A 3 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,34,116 saplings will be planted and nurtured in 167.058 hectares in 5 years.

35.1.16: Ash management

Details	Annual generation (MTPA)	Utilization (MTPA)	% of utilization	Balance quantity (MTPA)	No. of storage silos with capacity
Ash (Fly & Bottom)	1.31	1.31	100	-	4

Ash Pond details:

S.No.	Details of Ash Pond	Ash pond
1.	Area (Ha)	48.562
2.	Dyke height (m)	5
3.	Volume (m^3)	1760382.5
4.	Quantity of ash to be disposed (Metric Tons/Annum)	1.31
5.	Expected life of ash pond (number of years and months)	6 years 2 months
6.	Type lining carried in ash pond: HDPE lining of LDPE lining or clay lining or No lining	HDPE lining

S.No.	Details of Ash Pond	Ash pond
7.	Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	MoEF&CC norms for fly ash utilization is followed. 100% dry fly ash will be utilized from 4th year onwards and not be dumped in Ash Pond. Common ash slurry pumps will be provided for bottom and eco ash of two units. (2W+1S) will be provided for two units. Ash slurry will be discharged into common channel of ash slurry sumps from where it will be disposed to Ash Pond by means of slurry pumps and associated piping.
8.	Ratio of ash: water in slurry mix:	1:5
9.	Ash water recycling system (AWRS): Yes or No	Yes
10.	Quantity of wastewater from ash pond to be discharged into land or water body (m^3)	15,314.4 m^3/day of ash water recovery will be recirculated into ash water pump house.
11.	Details regarding dyke stability study and name of the organization who conducted the study:	Stability study was carried out by M/s. Bharat Heavy Electricals Limited (BHEL)

Ash utilization plan: The ash management of TNPGCL for all plants is covered under E-auction. The same facilities will be extended to the proposed power plant.

35.1.17: Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration shall be furnished
A. Summary of court cases: No court cases are filed against M/s. TNPGCL
B. Summary of show cause notices: No show-cause notice are issued against M/s. TNPGCL
C. Summary of violation: There is no any violation case pertaining to the project under the Environment Protection Act, 1986; Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980; the Wildlife (Protection) Act, 1972.

Observations and deliberation of the EAC

35.1.18: The Committee observed and noted the following:

i. Instant proposal is for seeking fresh Environment Clearance for 2x660 MW to complete the commissioning of the constructed facilities as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 with change of fuel mix i.e., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion.

ii. The proposed project was earlier accorded EC vide letter dated14/10/2013 for setting up of 2x 800 MW Udangadi Super Critical Imported Coal Based TPP at village Udangudi, in

Thiruchendur Taluk, in Thoothukudi district, in Tamil Nadu. Subsequently, EC was amended on 26/07/2017 for reduction of unit sizes from 2 x 800 MW to 2 x 660 MW. Thereafter, validity extension of EC was accorded on 25/09/2020 till 13/10/2023. As per amendment to the EIA Notification, 2006 dated 18/01/2021, the validity of EC extended till 13.10.2023. However, project could not be commissioned within the validity period. In view of this, proponent obtained fresh Terms of Reference (ToR) on 29.07.2024 for obtaining fresh EC as per MoEF&CC notification S.O. 1247 (E) dated 18/03/2021 with change of fuel mix i.e., from 100 % imported coal to use a mix of domestic coal as well as Imported coal in ratio of 50%-50% proportion. ToR was transferred vide letter dated 26.07.2025 from M/s TamilNadu Generation and Distribution Corporation (TANGEDCO) to M/s Tamilnadu Power Generation Corporation Limited (TNPGCL).

iii. Total required land for proposed project is 380 Ha, which include the plant area of 351.27 Ha and a coal jetty area of 28.73 Ha. However, land acquisition documents for 380 Ha has not been submitted.

iv. PP has obtained separate EC + CRZ Clearance MoEF&CC vide EC ID - EC22A004TN156490, and File No. 10-66/2020 -IA.III dated 03.08.2022 for Coal Jetty, Pipe Conveyor, Cooling water intake and outfall systems. Compliance status to the conditions prescribed in the EC& CRZ clearance has not been submitted.

v. Kuthiraimozhi Theri R.F – 7.8 km (NW) and Mangroves – 8.12 km (NE), Sand dunes – 0.5 km (E) are located within study area. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site as ascertained from DSS.

vi. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.

vii. PP has presented the coal characteristic of imported and domestic, which shall be use in 50:50 ratio. The Sulphur content of imported coal and domestic coal is reported as 0.52% and 0.31% respectively. Similarly, the ash content of imported coal and domestic coal is reported as 8.09% and 43.5%. Coal shall be transported by pipe conveyor system from coal jetty to plant site.

viii. The water requirement for the proposed project is estimated as 2,81,808 m^3 /day, out of which 87,168 m^3/day of fresh water requirement will be drawn from desalination plant and the remaining 1,94,640m^3 /day will be met from the sea. A desalination plant shall be installed with 16 KLD capacity.

ix. The power requirement for the proposed project is estimated as 92 MW, which will be sourced from plant itself.

x. Action plan submitted by the proponent to address the issues raised Public Hearing held on 07/02/2009 is not in line with the MoEF&CC OM dated 30/09/2020.

xi. The capital cost of the proposed project is Rs. 13076.705 Crore and the capital cost for environmental protection measures is proposed as Rs. 993.17 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 61.61 Crore. The employment generation from the proposed project is 545.

xii. The Committee deliberated on the baseline data and incremental GLC. The committee noted that the proponent is providing High Efficiency Electrostatic Precipitator (ESP) to meet the stack emission standards for Particulate Matters 30 mg/Nm^3, Low Nox Burner, and Dust Extraction & Suppression System to control the emission of Particulate matter, NOx, and

stack with a height of 275 m will be provided to control & regulate the air emission from the proposed project.

xiii. The EAC examined the Compliance Certified Report (CCR) obtained from the Regional Office of MoEF&CC and observed that several stipulated conditions are not being complied by the PP. The Committee further noted that satisfactory action has not taken by the PP to address these non-compliances even after lapse of 10 years from the date of grant of EC. Accordingly, the Committee asked the PP to comply with all EC conditions stipulated in the earlier EC and to submit the compliance report, including CRZ clearance compliance, for further consideration.

xiv. Greenbelt development was proposed for 167.058 ha which is about 44% of the total project area is. The EAC observed the progress of greenbelt development along with boundary wall of the project site is very poor and unsatisfactory, and planted sapling of trees height is less than 2 meter. No tangible action has been taken by the proponent to develop green belt all along the periphery of the project site. In this regard, PP assured that they will carry out plantation activities all along the periphery of the project area within a time frame of one month and details will be submitted to the Ministry.

xv. The EAC observed that the carbon emission and sequestration data submitted by PP were irrelevant and recommended revising and updating the plan in the EIA/EMP reports.

Recommendations of the Committee

35.1.19: In view of the foregoing and after the detailed deliberations, the ***Committee recommended to defer*** the instant proposal and sought for following additional data/information:

i. Land acquisition documents for 380 Ha as per MoEF&CC OM dated 07/10/2014 and its subsequent amendment dated 19/02/2025 shall be submitted.
ii. Certified compliance report from RO for the EC&CRZ clearance dated 03/08/2022 shall be submitted. In case of any non-compliances action taken report by the PP along with the closure report from Regional Office shall be submitted.
iii. Plantation activities all along the periphery of the project area shall be completed within a time frame of one month as committed and details of the same shall be submitted with geo-tagged photographs.
iv. Carbon emission and sequestration data submitted by PP shall be revisited and the same shall be resubmitted.
v. Year wise action plan to address the issues raised during public hearing held on 07/02/2009 shall be resubmitted in terms of MoEF&CC OM dated 30/09/2020 by duly incorporating the physical and financial outlay.
vi. Recommendations of the additional studies carried out namely Impact study on bio-diversity and aquatic ecology; hydrology and Hydrogeology study, Risk assessment Study and M-EIA study along with the action plan to comply with the same shall be submitted.
vii. Map depicting the existence of sand dunes and mangroves within the study area and conservations measures for protection of the same shall be submitted.
viii. Clarification on the percentage of completion of construction activity at the time of grant of ToR and at the time of EC application are found to be different. Factual status

in this regard and undertaking stating that no construction activity has been undertaken post-expiry of validity of EC in a non-judicial stamp paper shall be submitted.

ix. Structural Stability Certificate from the Expert agency stating that present existing structures at the project site is structurally stable and suitable for continuation of work towards completion.

Agenda item No. 35.2

35.2: Proposal for Expansion of existing capacity of power plant from 600MW to 1400MW by addition of 1×800MW Coal-based Super-Critical Thermal Power Plant (Phase-II) **by M/s. Jhabua Power Limited (JPL)** in the existing premises located at village Barela & Gorakhpur, Tehsil Ghansore, **District Seoni, Madhya Pradesh - Terms of Reference (ToR) – regarding.**

[Proposal No: IA/MP/THE/544463/2025; F. No. J-13012/105/2008-IA.II(T)]

35.2.1: M/s. Jhabua Power Limit has made an application online vide proposal no. IA/MP/THE/544463/2025 dated 29/11/2025 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Name of the EIA consultant: M/s. MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra. Certificate No. NABET/EIA/24-27/RA 0343; Valid up to 05/02/2027].

35.2.2: The Committee noted the following shortcomings in the proposal submitted by the proponent:

i. The instant project proposal is seeking for Terms of Reference (ToR) for the expansion of the existing 1 x 600MW TPP through the addition of 1 x 800 MW Coal based Super Critical Thermal Power Plant (Phase-II) by M/s. Jhabua Power Limited (JPL), at village Barela & Gorakhpur, Tehsil Ghansore, District Seoni, Madhya Pradesh. However, the Project proponent submitted technical data pertaining to a 1x800 MW Coal based Ultra Super Critical Thermal Power Plant. The committee prima-facie observed that Terms of Reference (ToR) proposal submitted by the Project proponent in a very casual manner, as there is no clarity regarding the exact nomenclature of the proposed project and technology proposed for upcoming project.

ii. The existing project of 1x600MW is located in 406 acre (164.302 ha) as per granted EC dated 17.10.2010. However, the Project proponent has indicated a total land requirement of 470.493 Ha (347.459 for existing project and 123.034 ha for proposed project) whereas in the presentation, the total land requirement has been stated as 470.42 ha (164.1 ha for the existing project and 306.32 ha for the proposed project). The Committee observed a complete lack of homogeneity and consistency in the land area details of the existing and proposed projects across the application, presentation, and the Pre-Feasibility Report (PFR). Accordingly, the Project Proponent is required to rectify and harmonize the land-related information and details of latitudes and longitude in requisite documents.

iii. Forest land area 3.88 Ha is in the project area, and Forest Clearance (FC) was obtained vide letter dated 07-02-2012 from MoEF&CC.

iv. The Project Proponent (PP) did not present details of sensitive receptors such as hospitals, schools, and villages during the presentation. The PP is required to revise the application and PFR with including all sensitive receptors presented within study area. PP needs to submit a toposheet issued by the Survey of India indicating the presence of environmental sensitive receptors.

v. Coal requirement for the proposed project is estimated 3.9 MTPA for 1 x 800 MW Unit. Ash generation is estimated 1.56 MTPA (Fly ash & Bottom ash). However, total estimated 3900000 MTPA coal requirement for proposed project is mentioned in submitted application. The committee observed the discrepancy in coal requirement data, therefore PP is required to revise the information, for further consideration.

vi. The committee observed no clarity in the water requirement for the project as presented by the Project Proponent (PP). In some places, the water requirement is mentioned as 32 cusecs for the project, while elsewhere it is stated as 18 cusecs for the existing project and 31 cusecs for the proposed project. The PP has obtained water permission for utilization of 16 MCM per annum from Bargi Dam (Rani Avanti Bai Lodhi Sagar), Jabalpur, vide letter dated 02.04.2016, and has also submitted applications to the Water Resources Department (WRD) vide letters dated 24.07.2025 and 07.11.2025 for obtaining 28 MCM per annum of water from Bargi Dam. Therefore, the PP is required to revise and resubmit the water requirement details with accurate, consistent, and factual information.

vii. The Project Proponent (PP) has not submitted the engineering drawings/plant layout plans for the existing (1 × 600 MW) as well as the proposed (1 × 800 MW) project. Therefore, PP is required to submit the complete and duly authenticated plant layout drawings.

viii. The total ash pond area required for the project is 287.00 acre (116.145 Ha) including 90 acre (36.42 Ha) for the existing ash pond and 197.0 acre (79.72 Ha) for proposed ash pond. However, the PP has mentioned different and inconsistent values in the submitted documents. Therefore, the committee advised the PP to correct and reconcile the ash pond area with accurate details.

ix. PP has presented the baseline data collected during March to May 2025 for incorporating in EIA report. The committee observed that the baseline air quality monitoring data (collected during March 2025-May 2025) were inadequate and data was not collected in accordance with the wind rose diagram and did not follow upwind, downwind and crosswind directions. Therefore, PP is required to collect fresh baseline data after selecting the number and locations of monitoring stations with scientific justification. In case of surface water monitoring, the number of monitoring location shall not be less than ten.

x. The project proponent has not circulated basic documents such as pre-feasibility report, brief summary in prescribed format to the EAC members. During the meeting neither the project proponent nor the consultant were able to explain the salient features of the existing and proposed project.

xi. The Committee noted several discrepancies in the information provided by the PP/consultant, and observed that the Project Proponent (PP) could not give satisfactory responses during the EAC presentation.

xii. The committee advised the project proponent to revisit the entire proposal in totality by addressing all relevant concerns related to the proposal under consideration. Thereafter, appropriate changes with true information in all the requisite documents

such as application form, annexure, presentation, pre-feasibility report (PFR) etc. shall be carried out and the proposal shall be submitted for fresh consideration by the EAC.

Recommendations of the Committee

35.2.3: In view of the forgoing and after deliberations, the Committee recommended to ***return the proposal in its present form*** and asked the proponent to revisit the entire application by incorporating all the technical shortcomings inter-alia including the above and thereafter proposal shall be submitted by the proponent for fresh consideration by the EAC.

Agenda item no. 35.3

35.3: 2×600 MW Anpara Thermal Power Plant by **M/s. MEIL Anpara Energy Limited** located at village Anpara, District Sonebhadra, Uttar Pradesh – **Amendment in Environment Clearance regarding review of Sulphur dioxide emission standards for Category B TPP as per MoEF&CC Notification dated 11/07/2025 – regarding**.

[Proposal No: IA/UP/THE/560000/2025; F.No. J- 13011/45/2007-IA-II (T)]

35.3.1: M/s. MEIL Anpara Energy Limited has made online application vide proposal no. IA/UP/THE/560000/2025 dated 12.12.2025 along with Form 4 & addendum EIA report prepared through QCI/NABET accredited consultant and sought for amendment in the Environmental Clearance accorded by the Ministry vide letter no. J-13011/45/2007-IA-II (T) dated 26.11.2007 for the project mentioned above under the provisions of the EIA Notification, 2006.

Name of the EIA consultant: M/s Gaurang Environmental Solutions Pvt. Ltd. [S. No. 110 List of ACOs with their Certificate No.: NABET/EIA/23-26/RA 0338 (Valid up to 07.12.2026).

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting are given as under:

35.3.2: The existing project of M/s. MEIL Anpara Energy Limited was originally granted Environmental Clearance in favour of M/s. Lanco Anpara Private Limited for setting up 2x600 MW Anpara Thermal Power Plant at Village Anpara, District Sonebhadra, Uttar Pradesh vide letter no J-13011/45/2007-IA-II (T) dated 26.11.2007 under EIA, 2006. Subsequently, amendment to the EC was accorded on 31/07/2008 for allowing the change in Closed Cycle cooling system with induced draft cooling towers. Later, MoEF&CC transferred the EC in favor of M/s MEIL Anpara Energy Limited, vide order dated 13.01.2025.

35.3.3: The implementation status of the existing EC dated 26/11/2007 is as follows:

S. No.	Configuration	Capacity (MW)	Date of accord of EC	Date of commissioning of unit 1 & 2	Production as per CTO dated 25.11.2024 valid up to 31/12/2029
1.	2 x 600 MW (Unit -1 & 2)	1200 MW	26.11.2007	Units 1 : 10.12.2011 Units 2 : 18.01.2012	2 x 600 MW

In addition to the above TPP, another project proponent namely M/s. UPRVUNL is operating another TPP with a total capacity 2630 MW [Unit 1, 2 &3- 630 MW (210 MW each) & Unit 4,5,6&7 – 2000 MW (500 MW each)] in the vicinity of the above mentioned project site.

35.3.4: Total land requirement for the TPP is 112.005 ha [Govt. Land 109.005 ha & Forest land:3 Ha]. Stage II FC obtained on 07.03.2007. The nearest SPA is Singrauli industrial area, which is 6.2 km from project boundary in W Direction. CEPI Score for Singrauli industrial area is 62.59. There are no national parks, Biosphere Reserves, Eco-sensitive zone, Tiger/Elephant Reserves and Wild Life Corridors within 10 km distance from the project site as ascertained from DSS.

35.3.5: Background for amendment sought by the proponent

With respect to the instant EC amendment proposal, following was apprised to the members of the EAC during the meeting:

a. Initially, MoEF&CC (erstwhile MoEF) notified stack emission standards for Particulate Matter (PM) parameter vide Notification dated 03.01.1989 requiring TPPs to install Electrostatic Precipitators (ESPs) to reduce emission.

b. MoEF&CC notified stack height regulation for TPPs vide Notification dated 30.08.1990. The said notification outlined stack height regulations based on the plant's capacity and Sulphur content in the fuel, ensuring proper dispersion of the pollutants (SO_2 and NOx) through adequately large stacks.

c. MoEF&CC vide its notification dated 07.12.2015 stipulated emission standards for coal/lignite-fired TPPs, which included revised emission standards for Particulate Matter (PM), and newly introduced emission standards for Sulphur dioxide (SO_2), Oxides of Nitrogen (NOx), and Mercury (Hg) parameters with timelines.

d. MoEF&CC vide its notification dated 28.06.2018 directed that the coal/lignite-fired TPPs are required to implement suitable technology namely, wet Flue Gas De-sulphurisation (FGD) - Lime Stone based; Seawater based FGD, Dry-Sorbent Injection(DSI) or using low-sulphur coal to control SO2 emission. In the said notification, stack height criteria for TPPs also modified as given below:

Parameter	**Existing Standards (G.S.R. 742(E) dated 30.08.1990)**	**New Standards Notification G.S.R. 593 dated 28.06.2018)**
Stack height (meters)	H = **275 meter** (≥ 500 MW units) H = **220 meter** (210 MW to < 500 MW units) H = 14 Q^0.3 meter (< 210 MW) (Where Q is emission rate of SO_2 in kg/hr)	H = 6.902 (Q x 0.277)^0.555 meter (Minimum 100 meter for ≥ 100 MW units) (Minimum 30 meter for < 100 MW units) (Where Q is emission rate of SO_2 in kg/hr, total of the all units' connected to stack)

e. Flue Gas Desulfurization (FGD) is a pollution control technology to remove SO_2 from the flue gases emitted by the coal/lignite-fired thermal power plants (TPPs) with the help of usage of alkaline dry/wet media [lime/lime slurry] (or) seawater.

f. In March 2021, MoEF&CC vide amendment notification dated 31.03.2021 prescribed the categorization of TPPs into Category A, B, and C, based on TPPs' location as given below with extended time limits up to December 2022, December 2023, and December 2024, respectively to comply with the prescribed emission norms.

Category of TPPs	No of units in the TPPs	Installed capacity(MW)
A: Within l0 km radius of National Capital Region or cities having million plus population	66 Nos	20557
B: Within l0 km radius of Critically Polluted Areas or Non-attainment cities	72 Nos	24057
C. Other than those included in Category A and B	462 Nos	166885.5
Total	**600 Nos**	**211519.5**

g. In September 2022, MoEF&CC vide amendment notification dated 05.09.2022 extended the time limits for SO_2 emission limit compliance for Category A, B, and C plants by 2 years i.e. up to December 2024, December 2025, and December 2026, respectively.

h. In December 2024, MoEF&CC vide amendment notification dated 30.12.2024 further extended the time limits for SO_2 emission limit compliance for Category A, B, and C plants by 3 years i.e. up to December 2027, December 2028, and December 2029, respectively.

i. MoEF&CC vide notification dated 11/07/2025 amended the provisions related to sulphur dioxide emission standards for Category –B Thermal Power Plants (TPPs) as mentioned below:

Category B: For all Category B Plants or Units, whether existing or upcoming, the applicability of Sulphur dioxide emission standards, shall be decided on a case to case basis by the Central Government based upon the recommendations of the Expert Appraisal Committee in charge of Thermal Power Projects constituted under Environment Impact Assessment notification 2006 based on the appropriate scientific studies as per the following procedure:

A. In case environmental clearance has already been granted, such plants or units may opt for review of the applicability of Sulphur dioxide standards provided that concerned project proponent applies for such review on the PARIVESH portal within six months of the date of issue of this notification, in case Sulphur dioxide standards are decided as applicable, the same shall be effective from 31/12/2028 and in all other cases, the thermal power plant shall comply with the stack height criteria notified *vide* notification number GSR 742 (E) dated 30/08/1990, by 31/12/2028;

B. In cases of upcoming plants where EC has not been granted, the applicability of Sulphur dioxide standards and the date of its coming into force or otherwise will be as specified in environmental clearance granted to each such projects following the procedure as laid down in Environment Impact Assessment notification 2006 as amended from time to time and in cases, where the Sulphur dioxide standards are not made applicable, the thermal power plants shall comply with the stack height criteria notified *vide* notification number GSR 742 (E) dated 30/08/1990;

These standards for Sulphur dioxide emissions shall be applicable with effect from the 31/12/2028 in respect of all those plants or units, which have not opted for review within the given timeframe, as specified in para (A) above.

j. As per the CPCB categorization with the respect to Sulphur di-oxide (SO_2) emission norms, 2 x 600 MW TPP of M/s. MEIL Anpara Energy Limited falls under Category B.

k. In pursuance to the MoEF&CC Notification dated 11/07/2025, M/s. MEIL Anpara Energy Limited has submitted their application for amendment in EC within the prescribed time frame seeking for review of Sulphur dioxide emission standards

35.3.6: The summary of the information submitted by the proponent in the addendum EIA report are as follows:

i. Average coal consumption and the average Sulphur content of coal is being used in the TPP for last three months period.

Month	**Coal consumption in MT**		
	Unit-1	**Unit-2**	**Total**
Aug-25	230123.00	249476.58	479599.58
Sep-25	235960.96	234718.00	470678.96
Oct-25	208349.00	198837.67	407186.67
Domestic Coal is being used while maintaining Sulphur content< 0.6%.			

ii. Minimum, maximum and 98th percentile levels of ambient PM_{10}, $PM_{2.5}$, NO_x, and SO_2 from secondary monitored AAQ data for last three months period.

S. No.	**Name of location**	**Parameters being monitored**	**Remarks**
CAAQMS Locations			
1	Switch yard	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO	Core zone
2	Central store		Core zone
3	MEIL Township		Buffer zone
Manual Monitoring Locations(NABL Approved Lab)			
1	Track hopper	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO	Core zone
2	Village Kakri		Buffer zone
3	Village Dibulganj		Buffer zone
4	HSCL Colony		Buffer zone
UPPCB Monitoring Locations			
1	Renusagar Colony	PM_{10}, $PM_{2.5}$, SO_2, NO_2	Buffer zone
2	Anpara Colony		Buffer zone

Summary of AAQ Result for August-October 2025:

S. No.	**Name of location**	**Parameter**	**Concentration in µg/m³**			**NAAQS**
			Min	**Max**	**Average**	
1	Track hopper	PM_{10}	42.11	54.70	47.07	100
		$PM_{2.5}$	20.58	25.66	22.42	60
		SO_2	12.47	18.94	16.65	80
		NO_x	18.20	22.78	20.20	80

S. No.	Name of location	Parameter	Concentration in µg/m³			NAAQS
			Min	Max	Average	
		CO (mg/m³)	0.490	0.620	0.529	02
2	Village Kakri	PM_{10}	39.44	50.26	44.56	100
		$PM_{2.5}$	18.56	26.36	21.75	60
		SO_2	12.47	18.54	15.83	80
		NO_x	17.16	21.48	19.45	80
		CO	0.44	0.570	0.520	02
3	Village Dibulganj	PM_{10}	39.22	50.26	42.82	100
		$PM_{2.5}$	18.49	22.69	20.35	60
		SO_2	8.08	18.02	12.22	80
		NO_x	15.66	21.32	18.63	80
		CO (mg/m³)	0.330	0.580	0.429	02
4	HSCL Colony	PM_{10}	38.48	48.63	42.67	100
		$PM_{2.5}$	17.20	22.65	19.46	60
		SO_2	8.25	14.69	11.04	80
		NO_x	14.02	20.35	17.12	80
		CO(mg/m³)	0.350	0.500	0.441	02
5	Renusagar Colony	PM_{10}	121	122	156	100
		$PM_{2.5}$	NA	54	75	60
		SO_2	15.35	16.72	17.52	80
		NOx	19.10	18.26	20.52	80
6	Anpara Colony	PM_{10}	119	118	133	100
		$PM_{2.5}$	NA	53	70	60
		SO_2	14.61	14.90	16.06	80
		NOx	18.35	17.44	19.29	80

iii. Average stack emissions for PM, NOx, and SO_2 parameters for last three months, flue gas concentration in mg/Nm³

S. No.	Name of location	Parameter	Concentration in (mg/Nm³) August 2025-October 2025		
			Max	Min	Avg.
1	Stack 1	PM	63*	12.7	36.87
		SO_2	690.8	9.5	598.9
		NO_2	236.7	1.4	152.2
2	Stack 2	PM	85.9*	27.7	36.7
		SO_2	792	614.6	712.23
		NO_2	338.3	93.5	23.16

**The maximum particulate matter (PM) emissions above 50 mg/Nm³are observed during start-up and shut-down (maintenance) operations of the system. Under normal and continuous operating conditions, the PM emissions are consistently maintained below 50 mg/Nm³.*

Mass emission rate of pollutants in gram per second

S. No.	Parameters	Units	Unit 1 (1x600)	Unit 2 (1x600)
1	Stack Height	M	275	
2	No. of flue	No.	1	1
3	Top diameter of flue	m	6.8	6.8
4	Flue gas velocity in each flue	m/s	27.12	27.57
5	Flue gas temperature	^oK	363	363
6	Volumetric Flow rate of gas in each flue	Nm^3/s	984	1000
7	**Emission Rates**			
A	PM_{10} (Emission Factor 2.3A lb/ton)	g/s	34.02	31.83
B	$PM_{2.5}$ (Emission Factor 0.6A lb/ton)	g/s	8.5	7.96
C	SO_2 (Emission Factor 35S lb/ton)	g/s	841.5	863
D	NO_x (Emission Factor 7.2 lb/ton)	g/s	353.5	359

iv. Current stack height in the TPP and compliance with the MoEF&CC Notification of August 30, 1990 (or) June 28, 2018.

The Company has already constructed 275 m high Bi-flue stack before commissioning. The TPP has already complied with the stack height (275 meters) in terms of the notification number GSR 742 (E) dated 30th August'1990.

v. Assessment of maximum Ground Level Concentration (GLCs) of pollutants from the stack emission as per the envisaged stack height (as applicable) based on available site-specific meteorological parameters. Details of the model used, input data used for modelling and output data of the modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors.

The predicted maximum Ground Level Concentration (GLCs) of PM_{10}, $PM_{2.5}$, NO_X, and SO_2 values were assessed at envisaged stack height of 275 m and reported in the EIA (2007). Since then, no addition of units or expansion of the project area, and the emission sources remain unchanged. Accordingly, the incremental GLC presented in the EIA continues to represent the project's contribution, and current ambient air quality reflects this without any increase, in compliance with applicable standards.

However as required, assessment of maximum GLCs of PM_{10}, $PM_{2.5}$, NO_X, and SO_2 pollutants from the stack emission as per the stack height of 275 m based on available site-specific meteorological parameters & stack monitoring reports has been done using AERMOD dispersion model for different stability state Gaussian plume dispersion, designed for multiple point sources for short term and developed by United States Environmental Protection Agency [USEPA] has been used for simulations.

GLC of pollutants at sampling location:

Receptor Location	GLC at Monitoring Location (µg/m³)			
	PM_{10}	**$PM_{2.5}$**	**SO_2**	**NO_x**
Track Hopper#	0.226	0.056	5.87	2.45
Kakri#	0.229	0.057	5.9	2.48
HSCL Colony#	0.16	0.04	4.2	1.77
Dibluganj#	0.25	0.06	6.6	2.76

Receptor Location	GLC at Monitoring Location (µg/m³)			
	PM_{10}	$PM_{2.5}$	SO_2	NO_x
Renusagar Colony^	0.21	0.068	7.03	2.94
Anpara Colony^	0.28	0.069	7.2	3.01
# baseline values as per monitoring being done regularly by MEIL. *^ Baseline as per ambient air quality results published by UPPCB*				

vi. Environment Management Plan (EMP):

Details as prescribed by MoEF&CC	Information provided by Proponent
Environment Management Plan (EMP) covering the following: **a.** Impact of ground level concentration on the environment if any and corresponding mitigation measures to be adopted. **b**. Additional mitigation measures proposed if any.	Based on coal quality, stack emission characteristics, ambient air quality observations, and AERMOD model predictions, the Air Quality Impact Prediction (AQIP) study conclusively demonstrates that: • SO_2 contribution from MEIL Anpara TPP is minimal, owing to the very low sulphur coal (0.29-0.38%), & 275 m high Bi-flue stack • SO_2 GLC concentrations are minimal, with the highest GLC being 15.31 µg/m³ at 2.17 km from the plant, and between 4.2–7.2 µg/m³ at receptor locations. • The air quality challenges in the region relate to PM (regional background sources), not SO_2, and therefore installing an FGD would not yield any significant ambient air quality benefit. • The EMP includes mitigation measures such as: • Hybrid ESP (High efficiency) installed • 275 m height chimney for dispersion of pollutants • **OCEMS** installed and connected with UPPCB. • Low NOx burners and over fire air dampers installed to control NOx • 3 Nos. of **CAAQMS** installed • Online Effluent Quality monitoring system installed in ETP outlet. • ETP (1 No.) & STP (2 Nos.) installed and treated water used for Greenbelt development. • MEIL undertakes to adhere to comply all the conditions stipulated in the EC as well as Consent and compliance reports are being submitted on regular basis to the MoEFCC/CPCB/UPPCB.

Air Pollution & Fugitive Emission Control Systems

Emission Source / Area	Control System / Measure Implemented
Particulate Matter (PM)	• Hybrid Electrostatic Precipitators (ESP + Bag Filters) installed in Unit-1 & Unit-2 • 275 m high stack for effective dispersion
Nitrogen Oxides (NOx)	Advanced Low-NOx burners • Over-Fire Air (OFA) dampers in steam generators
Coal Transportation	• 100% coal transported through Rail-based MGR system from Khadia (Expansion) mine, Singrauli

Emission Source / Area	**Control System / Measure Implemented**
Coal Handling & Storage	• Water spraying at transfer points, loading/unloading stations & stockpiles • Dust extraction systems at crusher houses & bunker transfer towers Water sprinklers in coal yard during stacking & reclaiming
Coal Bunkers	• Bunker ventilation system for dust & methane evacuation • Collected dust recycled to conveyor/bunkers
Fly Ash Handling	• Pneumatic closed-pipeline fly ash evacuation from ESP hoppers • Bag filters installed on top of fly ash silos
Fly Ash Loading & Transport	• Fly ash conditioned with water spray during loading • Covered bulkers used to prevent airborne dispersion
Fly Ash Disposal	• Primarily supplied to cement industries by road • Wet slurry disposal system during emergency conditions
Fly Ash Utilization	• Continuous efforts for **100% fly ash utilization** in compliance with MoEF&CC Notification dated **31.12.2021**

35.3.7: Amendment sought: The details of the condition for which amendment is sought and justification for the same is as follows:

Sr. No.	**Condition as per EC dated 26.11.2007**	**Amendment Sought**	**Justification & Request for Amendment**
1.	Space provision shall be made for installation of FGD of requisite efficiency of removal of SO_2, if required at a later stage. **(Condition no. vi)**	MEIL is seeking for review of the applicability of Sulphur dioxide standards and exemption for installation of FGD in terms of the MoEF&CC notification dated 11.07.2025.	i. The Units are operational since 2011 (Unit-1) & 2012 (Unit-2) with 275m height of RCC Chimney (bi-flue). This complies with the stack height criteria notified vide notification no.- GSR 742 (E) dated the 30th August'1990. ii. Domestic Coal is being used while maintaining Sulphur contents <0.6%. iii. Regular Environmental Parameters Monitoring & Analysis are being carried out in and around the TPP through NABL Accredited Laboratory. iv. 3 Nos CAAQM stations are installed and operational v. The GLC values were assessed and reported in the EIA (2007). Since then, no addition of units or expansion of the project, and the emission sources remain unchanged. Accordingly, the incremental GLC presented in the EIA continues to represent the project's contribution, and current ambient air quality reflects this without any increase, in compliance with applicable standards.

Observations and deliberation of the EAC

35.3.8: The Committee observed and noted the following:

i. The instant proposal is for seeking amendment in a EC conditions as per MoEF&CC Notification dated 11/07/2025 for Sulphur dioxide emission standards, prescribed in EC letter dated 26.11.2007, accorded for the project " 2×600 MW Thermal Power Plant by M/s. MEIL Anpara Energy Limited located at village Anpara, District Sonebhadra, Uttar Pradesh.

ii. The existing project was accorded Environmental Clearance dated 26.11.2007 from MoEF&CC for setting up of 2×600 MW Anapara Thermal Power Plant, and subsequently amended on 31.07.2008. Further, EC was transferred to M/s. MEIL Anpara Energy Limited from M/s. Lanco Anpara Private Limited on 13.01.2025. CTO is valid up to 31.12.2029.

iii. The Stage–II Forest Clearance (FC) for diversion of 3.0 ha of forest land, located within the existing project site, was obtained by the project proponent on 07.03.2007.

iv. There are no national parks, Biosphere Reserves, Eco-sensitive zone, Tiger/Elephant Reserves and Wild Life Corridors within 10 km distance from the project site as ascertained from DSS.

v. As per the KML file uploaded, the total area is 67.5 Ha which is different from the area mentioned in the EC letter dated 26/11/2007. Proponent unable to clarify this point. Copy of the application submitted for transfer of stage II FC dated 07.03.2007 in the new proponent name has not been submitted.

vi. The project site is not located within the Critically Polluted Area (CPA) but nearest Severally Polluted Area (SPA) is Singrauli industrial area, which is 6.2 km from project boundary in West Direction and CEPI score is 62.59.

vii. During the last three months, the total coal requirement for Unit-1 and Unit-2 was 479,599.58 MT, 470,678.96 MT, and 407,186.67 MT for the months of August, September, and October 2025, respectively. Domestic coal is being used, while maintaining a sulphur content of less than 0.6 %.

viii. The Project Proponent (PP**)** presented ambient air quality data (PM_{10}, $PM_{2.5}$, NO_x, SO_2, etc.) for the core and buffer zones. However, the EAC observed that the reported concentrations of PM_{10} and $PM_{2.5}$ at Renusagar Colony **(**156 µg/m³ and 75 µg/m³**,** respectively) and Anpara Colony **(**133 µg/m³ and 70 µg/m³**,** respectively), as submitted by the PP, are above the CPCB prescribed standards**.** Further, the PM, and SO_2 concentrations in the ambient air showed significant variation while comparing the data with the UPPCB data**.** Neither the proponent nor the consultant was able to explain the reasons for variation in the AAQ data with proper justification.

ix. The mass emission rate of pollutants including PM_{10}, $PM_{2.5}$, NOx, and SO_2 were estimated 34.02, 8.5, 841.5, 353.5 g/s, respectively for unit-1 and 31.83, 7.96, 863 and 359 g/s, respectively, for unit-2.

x. Project proponent has installed a 275 m bi-flue stack, which complies with the MoEF&CC Notification dated August 30, 1990.

xi. As per the submitted addendum EIA report prepared through QCI/NABET accredited consultant, the predicted maximum Ground Level Concentration (GLCs) using AERMOD View dispersion model from the stack emission as per the envisaged stack

height and site-specific meteorological parameters the maximum GLC of PM_{10} is 0.28 $\mu g/m^3$, $PM_{2.5}$ is 0.069 $\mu g/m^3$, SO_2 is 7.2 $\mu g/m^3$ and NOx is 3.01$\mu g/m^3$. However, no data has been furnished regarding impact of GLC on the prevailing AAQ levels.

xii. The committee noted in the vicinity of the project site, there are another seven power-generating units (3x210MW and 4x500MW) of M/s. UPRVUNL which are already under operation.

xiii. The EAC sought information regarding the Sulphate concentration in the Suspended Particulate Matter (SPM), but the requisite data was not available with PP at the time of presentation. The committee asked the proponent to furnish the same.

xiv. The details regarding additional pollution measures to be adopted by the proponent to maintain the PM levels in the ambient air and stack emission as per the prevailing norms, budget (capital & recurring) towards the additional mitigation measures and monitoring mechanism for updated EMP have not been provided in the addendum report.

xv. Project proponent shall submit an action plan to reduce the PM emission level in the stacks below the prescribed norms within a time frame of one year.

xvi. The committee asked the proponent to revisit the addendum report in totality by duly addressing all the above shortcomings and fresh proposal shall be submitted by the proponent for consideration by the EAC.

Recommendations of the Committee

35.3.9: In view of the foregoing and after the detailed deliberations, the Committee **recommended to return the proposal in its present form** and asked the proponent to revisit the entire application by incorporating all the technical shortcomings inter-alia including the above and thereafter proposal shall be submitted by the proponent for fresh consideration by the EAC.

Agenda item no. 35.4

35.4: Proposed 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power Project by **M/s Adani Power Limited** at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, **District Dhubri, Assam – Prescribing of Terms of Reference (ToR) – regarding.**

[Proposal No: IA/AS/THE/560845/2025; F. No. J-13012/10/2025-IA.I(T)]

35.4.1: M/s Adani Power Limited has made an online application vide proposal no. **IA/AS/THE/560845/2025** dated 09/12/2025 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level. The project do not attract the provisions of general condition of the EIA Notification, 2006.

Name of the EIA consultant: M/s Gaurang Environmental Solutions Pvt. Ltd. [[S. No. 110 List of ACOs with their Certificate No.: NABET/EIA /23-26/RA 0338 dated 16.07.2024 valid up to 07.12.2026].

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

35.4.2: The proposed greenfield project is for setting up of 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power project at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, District Dhubri, Assam by M/s. Adani Power Limited.

35.4.3: Environmental site settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>585 Ha [Private: 118.7 Ha + Govt: 466.3 Ha]</td><td>Land use: Industrial
(The land is allotted by APDCL, Govt. of Assam)</td></tr>
<tr><td>2.</td><td>Land use break up</td><td><table><tr><th>Particular</th><th>Area (in Ha.)</th></tr><tr><td>Main Plant</td><td>100</td></tr><tr><td>Coal Handling System (including Wagon Tippler)</td><td>70</td></tr><tr><td>Water System</td><td>20</td></tr><tr><td>Switch Yard</td><td>Included in Main Plant Area</td></tr><tr><td>Green belt</td><td>147</td></tr><tr><td>Roads</td><td>Included in Main Plant Area</td></tr><tr><td>Ash pond</td><td>70</td></tr><tr><td>Railway Siding</td><td>Outside plant boundary</td></tr><tr><td>Water supply pipeline (inside plant boundary)</td><td>Included in Main Plant Area</td></tr><tr><td>Ash transport pipeline</td><td>Included in Main Plant Area</td></tr><tr><td>Others:</td><td></td></tr><tr><td>Land for Future Expansion including CGU (11 Ha)</td><td>178</td></tr><tr><td>Total</td><td>585 Ha</td></tr></table></td><td>--</td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC
O.M.dated 7/10/2014 &</td><td>The land is allotted by Assam Power Distribution Company Limited (APDCL).</td><td>Lease Deed submitted along with ToR application.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>20/2/2025</td><td></td><td></td></tr>
<tr><td>4.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: Charuabakhra, Chirakuta I & II, Santoshpur.
Study Area: As below
<table><tr><th>Habitation / village</th><th>Distance (Km)</th><th>Direction</th></tr><tr><td>Charuabakhra</td><td>Adjacent</td><td>-</td></tr><tr><td>Chirakuta I</td><td>Adjacent</td><td>-</td></tr><tr><td>Chirakuta II</td><td>Adjacent</td><td>-</td></tr><tr><td>Santoshpur</td><td>Adjacent</td><td>-</td></tr><tr><td>Gourangtari Pt I</td><td>2.5</td><td>NE</td></tr><tr><td>Baniapara Pt II</td><td>5.3</td><td>E</td></tr><tr><td>Baniapara Pt I</td><td>4.5</td><td>SE</td></tr><tr><td>Salkocha</td><td>4.3</td><td>SE</td></tr><tr><td>Geravita</td><td>4</td><td>SW</td></tr><tr><td>Hapapara</td><td>1.5</td><td>N</td></tr><tr><td>Khamarpara</td><td>3.4</td><td>SE</td></tr><tr><td>Tokrabandha</td><td>2.4</td><td>SW</td></tr><tr><td>Bilasipara</td><td>5</td><td>E</td></tr><tr><td>Jamduar Pt II</td><td>2.7</td><td>NW</td></tr><tr><td>Chandardinga</td><td>7</td><td>SE</td></tr></table></td><td>Status of R&R.
No R & R is involved.
The land is allotted by Assam Power Distribution Company Limited (APDCL) to set up the Power Project as per the agreement with the State Government</td></tr>
<tr><td>5.</td><td>Existence of school and hospital if any.</td><td>A. <u>School</u>
Project site: NIL
Study Area: As below
<table><tr><th>School</th><th>Distance (Km)</th><th>Direction</th></tr><tr><td>Salkocha HS School, Salkocha</td><td>3.5</td><td>E</td></tr><tr><td>Silgara High School, Hapapara</td><td>3.1</td><td>N</td></tr><tr><td>Dwarshila High School, Ishilamari</td><td>5.5</td><td>SW</td></tr><tr><td>Tilapara HS School, Tilapara</td><td>3.1</td><td>S</td></tr><tr><td>Govt Model College, Bilasipara</td><td>2.2</td><td>W</td></tr><tr><td>Silgara ME School, Silgara</td><td>3.1</td><td>NE</td></tr><tr><td>Sankardev Sishu Viddya Nicatan, Salkocha</td><td>3.0</td><td>NE</td></tr></table>B. <u>Hospital</u>
Project site: NIL
Study Area: As below</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Hospital</th><th>Distance (Km)</th><th>Direction</th></tr>
<tr><td>Salkocha Hospital, Silkocha</td><td>2.2</td><td>E</td></tr>
<tr><td>Diporkhuti Civil Hospital, Bilasipara</td><td>7.5</td><td>NW</td></tr>
</table>

Protection measures to be adopted are as follows:

Control of Air Emissions:

Provision of High Efficiency ESP, Low NOx Burner & Over Fire Air System, Dust Extraction, Dust Suppression, Dry Fog Dust Suppression, Fog Cannons at Ash Dyke, Water Sprinkling on Hauling Roads.

Noise: Acoustic Enclosures & barriers

Greenbelt Development: Development of dense greenbelt in the periphery of plant as well as towards the side of villages/ habitations, Afforestation/ Miyawaki Plantation on available land.

Wastewater: ETP, STP, Ash water recycling system, Zero Liquid Discharge, Rainwater Harvesting, Watershed Development in the vicinity.

Safety: Display signage’s, speed breakers, and crossing guard's provision; optimization of heavy vehicle movement near villages, Disaster Management Plan & Provisions.

Health & Awareness: Regular health camps, distribution of masks, and environmental awareness programs for surrounding community.

CSR & Monitoring: Support for infrastructure and development, and regular monitoring of air and noise pollution.
</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>6.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
A. Plant site
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>26°13'50.10"N</td><td>90°16'58.93"E</td></tr>
<tr><td>2</td><td>26°14'6.60"N</td><td>90°17'41.64"E</td></tr>
<tr><td>3</td><td>26°14'26.69"N</td><td>90°18'2.40"E</td></tr>
<tr><td>4</td><td>26°14'37.75"N</td><td>90°18'47.05"E</td></tr>
<tr><td>5</td><td>26°14'2.46"N</td><td>90°19'1.55"E</td></tr>
<tr><td>6</td><td>26°13'35.93"N</td><td>90°18'56.79"E</td></tr>
<tr><td>7</td><td>26°13'6.10"N</td><td>90°18'10.04"E</td></tr>
<tr><td>8</td><td>26°13'19.28"N</td><td>90°17'34.83"E</td></tr>
</table>
B. Ash Pond
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>26°14'04.15"N</td><td>90°17'43.94"E</td></tr>
<tr><td>2</td><td>26°13'41.41"N</td><td>90°17'43.89"E</td></tr>
<tr><td>3</td><td>26°13'41.56"N</td><td>90°17'58.71"E</td></tr>
<tr><td>4</td><td>26°14'03.54"N</td><td>90°17'58.90"E</td></tr>
<tr><td>5</td><td>26°13'52.49"N</td><td>90°17'51.58"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>7.</td><td>Elevation of the project site</td><td>Site elevation (MSL): approx. 63 Meters

Site is substantially located at approx. 13 Meters higher elevation with respect to Brahmaputra River.</td><td></td></tr>
<tr><td>8.</td><td>Involvement of Forest land if any.</td><td>No Forest land is involved in the proposed project.</td><td></td></tr>
<tr><td>9.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>
Project Site: NIL

Study area:
<table>
<tr><th>Water body</th><th>Distance (in km)</th><th>Direction</th></tr>
<tr><td>Brahmaputra River</td><td>4.8</td><td>S</td></tr>
<tr><td>Gourang River</td><td>2.9</td><td>W</td></tr>
<tr><td>Chak Chaka Lake</td><td>3.3</td><td>E</td></tr>
<tr><td>Deeplai Lake</td><td>5</td><td>N</td></tr>
<tr><td>Dakra Lake</td><td>6</td><td>NE</td></tr>
<tr><td>Dhir Nadi</td><td>6.2</td><td>E</td></tr>
</table>
*Source: - All distances are taken with respect to S.O.I. Toposheet.
</td><td></td></tr>
<tr><td>10.</td><td>Archaeological sites monuments/ historical temples etc.</td><td>There are no Archeological Sites present within the study area.</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>11.</td><td>Existence of ESZ/ESA/

national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td><u>Study area:</u>

Name of the ESZ/ESA: Chakrashila Wildlife Sanctuary

Status of Notification: Notified

Distance of project from ESZ: About 2.52 Km

Authenticated map of ESZ projecting distance of ESZ from project site: Will be submitted along with EC application

Status of NBWL approval: Not Applicable, as project is outside ESZ

List of Reserved and protected forests:
<table><tr><th>Particulars (RF/PF)</th><th>Distance (In km)</th><th>Direction</th></tr><tr><td>Tokrabandha RF</td><td>2.0</td><td>SW</td></tr><tr><td>Dudhnath RF</td><td>1.5</td><td>S</td></tr><tr><td>Chandardinga RF</td><td>4.5</td><td>SE</td></tr><tr><td>Kaprigacha R.F</td><td>9.2</td><td>NW</td></tr><tr><td>Shrigram R.F.</td><td>5.9</td><td>NE</td></tr><tr><td>Charalkhola R.F.</td><td>9.2</td><td>NE</td></tr><tr><td>Sarpamar R.F.</td><td>4.4</td><td>SE</td></tr></table>Chakrashila Wildlife Sanctuary is located at a distance of 5.2 Km from the proposed TPP.</td><td></td></tr>
<tr><td>12.</td><td>Facility envisaged in CRZ area (Only for coastal power plant)</td><td>Not applicable</td><td></td></tr>
<tr><td>13.</td><td>Involvement of Critically Polluted Area / Severely Polluted area as per 2018 CEPI score</td><td>Project site is not located within CPA/SPA.</td><td></td></tr>
</table>

35.4.4: The unit configuration and capacity of proposed project is given as below:

S. No.	Proposed power plant configuration and capacity	Total	Technology adopted
1	(4x800) MW	3200 MW	Ultra Super Critical

35.4.5: The details of the fuel (Coal/Gas/LDO) requirement for the proposed project along with its source and mode of transportation is given as below:

Details	Fuel requirement	Source	Distance from site (Kms)	Mode of Transpor-tation	Coal characteristics (Worst case scenario)	Linkage document
Coal	13.27 MTPA	MCL/ECL/NECL/ Nearby Commercial Coal Mines & e-auction	350-690 Km	Rail	Ash <40 (%) Sulphur <0.5 (%) Moisture-13 (%) GCV- 3200-4300 Kcal/Kg	FSA under Shakti Policy and E-auction
LDO/HSD	24,000 KL/ Annum	Local Market/Vendors	About 50-100	Road	Low Sulphur (3-5% mass)	Local Vendors

35.4.6: Water requirement: The water requirement for the proposed project is estimated as 1,53,600 m^3 /day (56 MCM), out of which 1,53,600 m^3 /day fresh water requirement will be obtained from Brahmaputra River. The application has been submitted to WRD for the permission for drawl of surface water vide letter no. APL/ASSAM/WRD/006 dated 27.11.2025. The water will be transported to the plant site through water pipeline. The specific water consumption for the power plant will be < 2.5 m^3/MWhr.

35.4.7: Power requirement: The power requirement for the proposed project is estimated as 176 MW, which will be obtained from the nearby substation.

35.4.8: Solid and hazardous waste management: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
1	Municipal Solid Waste	Plant Canteen	91	Collected; segregated using color coded waste bin, Organic waste converters (OWC)	Inorganic will be disposed via local municipal authorized vendor & Organic/ Biodegradable waste by OWC.
2	E-waste	IT & Telecom Equipment	3.5	Collected; segregated	Registered Recycler vendor
3	Battery waste from UPS	Automotive & Industrial	7	Collected; segregated	Authorized Vendor
4	Bio medical waste	First aid center	0.12	Collected; segregated	Authorized vendor
5	Hazardous Waste	Plant Operation	Used/ Spent Oil – 100 KL Waste or residues Empty Barrels/Containers/ Contaminated Liners – 15 TPA	-	Registered Recyclers/Pre-processors with SPCB & Authorized

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
			Contaminated cotton – 5.0		Recyclers

35.4.9: Project Cost: The capital cost of the proposed project is Rs 36,600 Crores and the capital cost for environmental protection measures is proposed as Rs 2,608. Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 26 Crores. The employment generation from the proposed project in Construction phase: 400 (permanent) + 8000 (contractual), Operation phase: 500 (permanent) + 2000 (contractual).

35.4.10: Greenbelt development: Greenbelt for the proposed project will be developed in an area of 147 ha, which is about 25.13 % of the total project area of 585 Ha. A 20 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,67,500 saplings will be planted and nurtured in 147 hectares in 5 years.

35.4.11: Ash management:

Details	Annual generation (MTPA)	Utilization (MTPA)	% of utilization	Balance quantity (MTPA)	No of storage silos with capacity
Ash (Fly & Bottom)	5.31	5.31	100	0	6x2500 MT

Ash pond details- PP has proposed the following ash pond details:

S. No.	Details of Ash pond	Ash pond
1.	Area (Ha)	70
2.	Dyke height (m)	15
3.	Volume (m^3)	105 Lac m^3
4.	Quantity of ash to be disposed (Metric Tons)	115.5 Lakh MT
5.	Expected life of ash pond (number of years and months)	Life of ash dyke is calculated as 20 years
6.	Type lining carried in ash pond: HDPE lining of LDPE lining or clay lining or No lining	HDPE
7.	Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	HCSD/MCSD
8.	Ratio of ash: water in slurry mix (1:___):	65:35
9.	Ash water recycling system (AWRS): Yes or No	Yes
10.	Quantity of wastewater from ash pond to be discharged into land or water body (m^3)	0

35.4.12: Baseline data collection: October 2025 to December 2025

Attributes	Parameters	Sampling		Remarks
A. Air		**No. of stations**	**Frequency**	
a. Meteorological parameters	Wind speed, Wind direction, Relative Humidity, Temperature and Rainfall	1	Hourly	Met data logger at site Secondary data from nearest IMD Station, Goalpara / Dhubri
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO & Hg.	11	24 hourly data, twice a week for 12 weeks	As per NAAQS, 2009 by CPCB
B. Noise	Hourly equivalent noise levels	11	One time sampling for 24 hours	IS: 4954- 1968 as adopted by CPCB
C. Water				
Surface water parameters	Physical parameters – (pH, temp, colour, turbidity, odour, taste), Chemical parameters - (Total hardness, calcium, total alkalinity, chloride, magnesium, TDS, sulphate, fluoride, nitrate, iron, aluminium, boron, phenolic compounds, chromium, conductivity, BOD, COD, DO, TSS, Heavy metals like Hg, As, Pb, Ni, Mn, Cd) & microbiological parameters – (Total coliforms, E-COli) etc.	13	During Study Period	During Study Period
Ground water parameters	Physical parameters – (pH, temp, colour, turbidity, odour, taste, TDS), Chemical parameters - (Total hardness, calcium, total alkalinity, chloride, cyanide, magnesium, sulphate, fluoride, nitrate, iron, aluminium, boron, phenolic compounds, chromium, poly aromatic hydrocarbons, Heavy	11	During Study Period	During Study Period

Attributes	Parameters	Sampling		Remarks
	metals like Hg, As, Pb, Ni, Mn, Cd) & microbiological parameters – (Total coliforms, E-coli) etc.			
D. Land				
a. Soil quality	Particle size distribution; Texture, pH, Electrical conductivity, cation exchange capacity (CEC), Alkali metals, Sodium Absorption Ratio (SAR), Permeability, Porosity, available nitrogen, available phosphorous, potassium, heavy metals like – As, Hg etc.	11	During Study Period	During Study Period
b. Land use	Location code, Total project area, Topography, Drainage (natural) Cultivated, forest plantations, water bodies, roads and settlements	10 km radius	---	During Study Period
E. Biological				
a. Aquatic	Primary productivity, Aquatic weeds, Enumeration of phytoplankton, zooplankton Fisheries Diversity indices Trophic levels, Rare and endangered species, etc.	From nearby tributaries at downstream, and also from dug wells close to activity site	During the Study period	One season sampling for aquatic biota, Plankton net, Sediment dredge, Depth sampler
b. Terrestrial	Vegetation – species, list, economic importance, forest produce, medicinal value Importance value index (IVI) of trees and wild animals	Considering probable impact, sampling points and number of samples on established guidelines on ecological studies based on site eco-environment setting within 10 km radius from the proposed site.	During the Study period	One season for terrestrial biota. Preliminary assessment. Application of indices, viz. Shannon, similarity, dominance IVI etc. Point quarter plot-less method (random sampling) for terrestrial vegetation survey.

Attributes	Parameters	Sampling		Remarks
	Fauna: Rare and endangered species Sanctuaries / National park / Biosphere reserve Listing of birds, mammals, reptiles, amphibians etc	For forest studies, chronic as well as short-term impacts.	During the Study period	Secondary data from Government offices, NGOs, published literature Field binocular.
F. Socio-economic parameters	Demographic structure Infrastructure resource based	Socio-economic sample survey	---	Community/Village Level survey based on personal interviews and questionnaire within 10 KM radius of project site.

35.4.13: Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration: There is no court case/show cause against the proposed project. Further, there is no violation cases under the Environmental Protection Act, 1986, Van (Sanraksha Evam Samvardhan) Adhiniyam, 1980 and The Wildlife (Protection) Act, 1972.

Observation and deliberation of the EAC

35.4.14: The Committee observed and noted the following:

i. Instant proposal is a Greenfield project of 3200 MW (4x800MW) Coal Based Ultra Super Critical Thermal Power Project by M/s. Adani Power Limited, located at Villages Charuabakhra, Chirakuta I & II, Santoshpur, Revenue Circle Chapar, District Dhubri, Assam.

ii. The committee observed that no alternative sites considered by the Project proponent, since the project area has been allotted specifically for the project by the Assam Power Distribution Company Limited (APDCL), Govt. of Assam. Total land requirement for the proposed project is 585 ha (Private: 118.7 Ha + Govt. 466.3 Ha). No R & R is involved in the proposed project.

iii. There is no involvement of forest land in the proposed project.

iv. Chakrashila Wildlife Sanctuary is located at a distance of 5.2 Km and 2.52 km from Eco sensitive zone from the proposed TPP. There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves and Corridors within 10 km distance from the project site as ascertained from DSS.

v. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.

vi. The committee noted that Bramaputra River, Gourang River and Dhir nadi are located at 4.8 (S), 2.9 (W) and 6.2 (E) km, respectively, from the project boundary. Further, Chak Chaka Lake, Deeplai Lake and Dakra Lake are located at 3.3 (E), 5 (N) and 6 (N to E) km, respectively, from the project boundary. The committee observed some reserved/protected forests such as Dudhnath RF, Tokrabandha RF, Sarpamar R.F, Chandardinga RF, etc. located within the study area.

vii. Coal requirement for the proposed project is about 13.27 MTPA that will be sourced from Nearby Commercial Coal Mines (MCL/ECL/NECL) & e-auction and transported through railway wagons. There will be no road transportation of coal for proposed project. Only LDO/HSD (24,000 KL/ Annum) will be transported by road.

viii. The water requirement for the proposed project is estimated as 1,53,600 m^3 /day (56 MCM), out of which 1,53,600 m^3 /day fresh water requirement will be obtained from Brahmaputra River. The application has been submitted to WRD for the permission for drawl of surface water vide lr. no. APL/ASSAM/WRD/006 dated 27.11.2025. The water will be transported to the plant site through water pipeline. The specific water consumption for the power plant will be < 2.5 m3/MWhr.

ix. The power requirement for the proposed project is estimated as 176 MW, which will be obtained from the nearby substation.

x. The capital cost of the proposed project is Rs. 36,600 Crores and the capital cost for environmental protection measures is proposed as Rs. 2,608. Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 26 Crores. Employment generation from the proposed project during the Construction phase: 400 (permanent) + 8000 (contractual) and Operation phase: 500 (permanent) + 2000 (contractual).

xi. Greenbelt for the proposed project will be developed in an area of 147 ha, which is about 25.13 % of the total project area of 585 Ha. A 20 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species of not less than 4 feet height will be planted with a density of 2500 trees per hectare. Total no. of 3,67,500 saplings will be planted and nurtured in 147 hectares in 5 years.

xii. About 425 trees shall be cut down in the proposed project. Further, about 167 trees shall be translocated. The committee suggested to prior permission and submit the NOC form the concerned forest Department for the same.4 times saplings will be planted apart from the greenbelt one year in advance against the number of the trees to be felled.

xiii. Ash pond will be developed in 70 ha area (i.e., 0.02 Ha/MW) with 15 m of ash dyke height. About 5.31 MTPA ash (Fly Ash: 4.25 MTPA + Bottom ash: 1.06 MTPA) will be generated and the same will be disposed with 100 % utilization by cement manufacturing, bricks manufacturing industries and filling mines etc. Unused fly ash, if any, will be stored to ash dyke.

xiv. Various schools and hospital are located within 3.5 km distance from proposed project site. The committee suggested to maintain the sanitation, and provide the clean water (drinking) facility and toilet facility in all schools present within 3.5 km area from proposed site.

xv. EAC asked that PP shall provide the details of environmental receptors present within 10 Km area of the proposed project and the same will be included in the EIA/EMP reports.

xvi. The proposed units (4x800 MW) will incorporate high-efficiency Electrostatic Precipitators (ESP) to control particulate matter and selective catalytic reduction

system (SCR) to control the NOx emission. For SO_2 emission, 275m high Chimney is proposed. EAC suggested to incorporate detailed SO_2 emission norms and their control facility/technology in the EIA/EMP reports.

xvii. The waste water generated (Domestic 22 KLD + Industrial 1996 KLD) in the proposed project shall be treated by STP (30 KLD) and ETP (2400 KLD). Zero liquid discharge (ZLD) facility shall be adopted since the cooling water, blow down water, wastewater and ash water would be recycled back to the system after suitable treatment for reuse.

xviii. The committee observed several water bodies in the vicinity of the project site and suggested to carryout Hydrology, Watershed management and aquatic biodiversity study and the same shall be incorporated in the EIA/EMP reports.

xix. The committee suggested to carryout a socio-economic study and prepare an action plan and submit along with EIA/EMP reports.

xx. The committee noted that the proposed project site lies in an Earthquake-sensitive zone-v as per IS 1893 (Indian Seismic Code), indicating the highest seismic risk area (Very Severe Intensity); therefore, committee suggested to conduct a seismic study and risk assessment through reputed institute and submit along with EIA/EMP report.

Recommendations of the Committee:

35.4.15: The EAC after detailed deliberations on the information submitted and as presented during the meeting ***recommended*** the proposal for grant of ToR for conducting an EIA study for the above project under the provisions of the EIA Notification, 2006, as amended along with the following specific ToR in addition to the generic ToRs.

Specific ToR:

[A] Environmental Management and Biodiversity Conservation

i. Project proponent shall explore the feasibility of using air cooled condenser in place of water cooled condenser and details shall be incorporated in the final EIA/EMP report.

ii. Project proponent shall optimize the land requirement for the proposed ash pond and design details of the same shall submitted in the EIA/EMP report.

iii. Certificate from concerned District Magistrate/Executive Engineer from the State Water Resources department (or) any officer authorized by the State Government in this regard shall be submitted stating that project site is not located within flood plain of Bramaputra River and Gourang River corresponding to one in 25 years of flood as per Ministry's O.M. dated 14/02/2022.

iv. PP needs to submit NOC/permission from the State Water resource Department/Irrigation Dept. in case of diversion of any Nala/Stream/water bodies.

v. All the parameters as mentioned in the National Ambient Air Quality Standards (NAAQS) shall be monitored by the project proponent.

vi. Project proponent shall also obtain recommendations from the State Forest department regarding the impact of project on the nearby Reserved Forests, if any, along with the mitigation measures to be followed.

vii. EIA/EMP study shall take in to consideration the different scenarios arising due to change of coal source, impact on environmental attributes due to change of coal source along with corresponding mitigation measures with EMP budget shall be submitted.

viii. Biodiversity analysis of the project site and study area shall be done through any NABET accredited consultant. The study report shall inter-alia include impact of release of cooling tower water on aquatic life and action plan for complying with the recommendations of the study report shall be submitted.

ix. Project proponent shall commission a study on site specific hydrological studies for area drainage for design of 3200 MW power plant structure through reputed Government institute. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.

x. Project proponent shall prepare an integrated water shed management plan for protection and conservation of water bodies within the study area of the project site. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.

xi. 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.

xii. PP should submit the detailed plan in tabular format (year-wise) for concurrent afforestation and green belt development in and around the project site covering 25% of the project area as per MoEF&CC OM dated 29.10.2025 of MoEF&CC for greenbelt/green cover requirement for industries. The PP should submit the number of saplings to be planted, names of native species, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling should be of native and few fruit bearing species mainly, of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided.

xiii. Action plan for development of three-tier plantation programme (25 % of total project cover area) along the periphery of the project boundary and the coal transportation route shall be provided. PP shall submit concurrent plantation plan. Apart from the greenbelt 4 times saplings will be planted one year in advance against the number of the trees to be felled.

xiv. Detailed action plan shall be prepared for maintenance of air pollution control equipment for proposed units and shall be incorporated in the EIA/EMP report.

xv. Details of Ash management plan as per MoEF&CC notification dated 31/12/2021 & its subsequent amendment for the proposed project shall be submitted. MoU signed for ash utilization with companies shall be submitted.

xvi. Action plan for dry ash collection system (Bottom ash and Fly ash) shall be submitted.

xvii. Action plan for disposal of ash through High Concentration Slurry Disposal (only in emergency conditions) shall be submitted.

xviii. Proper protection measures like high-density polyethylene (HDPE) lining, appropriate height of bund and adequate distance between the proposed Ash pond and water body (minimum 60 meters) etc. shall be planned to reduce the possibility of mixing leachate with any freshwater body for ash pond. A high-density Slurry disposal plan shall be prepared.

xix. 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. Baseline Study for Heavy metals in Groundwater, Surface water and soil to be carried out and incorporated in EIA/EMP report.

xx. Details pertaining to water source, treatment and discharge should be provided.

xxi. PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.

xxii. Project Proponent to conduct Environmental Cost Benefit Analysis for the project in EIA/EMP Report.

xxiii. An action plan shall be prepared for Water shed development within 10 km radius of the plant boundary in consultation with reputed government institution and incorporated in EIA/EMP report.

xxiv. PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total material handled) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using e-vehicles/LNG/CNG based machinery and trucks for the operation and transportation of Coal and ash and submit an implementation strategy.

xxv. PP shall provide the details of transportation of fly ash from the plant, transportation route etc. Further, carry out a traffic study for at least one month and provide the impact of transportation along with the mitigation measures.

xxvi. PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.

xxvii. Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.

xxviii. The input parameters for the AAQ modelling and the influence of various combinations of these on the AAQ must be reported in the EIA/EMP Report. In addition to the Wind Rose diagram collected for one season during the preparation of the E.I.A., wind rose diagram for all seasons must be provided using secondary data from sources such as IMD/CPCB etc.

xxix. Project proponent shall take all necessary steps to control the Air Quality and take additional mitigation measures for proposed TPP to maintain the Ambient Air Quality values within the limits. The action plan regarding maintaining ambient quality standards (Time weighted average for 24 hours and Annual both) be submitted. Further, project proponent shall submit an undertaking to abide by the provisions of

the notification number G.S.R 465 (E) dated 11/07/2025 related to SO_2 emission norms.

xxx. Details of air pollution control devices to be installed in the proposed 4x800 MW TPP along with its maintenance schedule shall be incorporated in EIA/EMP report.

xxxi. Carbon emission due to proposed TPP and allied carbon sequestration/ carbon offsetting plan be submitted.

xxxii. PP is advised to implement the 'Ek Ped Maa Ke Naam' Campaign, which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. An action plan in this regard shall be submitted.

[B] Disaster Management

i. A Disaster Management Plan shall be prepared and incorporated in the EIA/EMP report.

ii. Project proponent shall carry out study on site specific design earthquake parameters for proposed 3200 MW power project through reputed institute as the proposed project site lies in an Earthquake-sensitive zone-v as per IS 1893 (Indian Seismic Code), indicating the highest seismic risk area (Very Severe Intensity).

iii. Site specific risk assessment study followed by emergency preparedness plan shall be submitted.

[C] Socio-economic Study

i. Public Health Action Plan including the provisions for drinking water supply for the local population shall be in the EIA/EMP Report. The status of the existing medical facilities in the project area shall be discussed. Possibilities of strengthening of existing medical facilities, construction of new medical infrastructure etc. will be explored after assessing the needs of the labour force and local populace.

ii. Public consultation (Public Hearing and Written submission) shall be conducted as per the provisions of EIA Notification, 2006 and as amended. As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public Hearing, the Project Proponent is required to submit the detailed activities proposed with year wise budgetary provision (Capital and recurring) for 5 years. Activities proposed shall be part of EMP. Tentative no. of project affected families (if any) shall be identified and accordingly appropriate Rehabilitation &Resettlement plan shall be prepared. The recommendation Socio-economic study may also be considered while planning the activities & budget.

iii. A need based Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.

iv. Demographic details and land use change details in 10 km area shall be submitted.

[D] Miscellaneous

i. Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field

based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modeling.

ii. PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.

iii. PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.

iv. Detailed description of all the court cases along with its current status shall be submitted.

v. PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. obtained for this project under various Acts, Rules and regulations shall be submitted. Further, all the permissions/MoUs obtained for this project shall be revalidated and submitted along with the EIA/EMP report.

vi. 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.

vii. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of persons to be engaged for the implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.

viii. PP should submit the year-wise, activity wise and time-bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.

ix. Activities shall be prepared based on the issues arise during public hearing conducted and fresh written submission with defined timeline and budgetary provisions.

x. Aerial view video of project site and coal transportation route proposed for this project shall be recorded through drone and be submitted. Along with this plan of 3 tier plantation on coal transportation route shall be submitted.

xi. The PP should ensure that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.

xii. PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.

xiii. All the certificates viz. involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The

Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.

xiv. Necessary coordination shall be made with concerned SPCB (who is responsible for Compliance of OM dated 14.01.2025) regarding streamlining the implementation of GSR 702 and GSR 703 dated 12.11.2024 through which projects requiring prior EC were exempted from requirement of CTE.

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ANNEXURE-I

LIST OF PARTICIPANTS OF EAC (THERMAL) IN 35TH MEETING HELD ON 24TH DECEMBER, 2025 THROUGH PHYSICAL MODE

S. No.	Name & Address	Role	24.12.2025
1.	Shri Inder Pal Singh Matharu, (I.F.S. Retd.)	Chairman	Present
2.	Shri Lalit Kapur	Member	Present
3.	Dr. Umesh Jagannathrao Kahalekar	Member	Present
4.	Dr. Santosh Kumar Hampannavar	Member	Absent
5.	Shri Savalge Chandrasekhar	Member	Absent
6.	Shri K. B. Biswas	Member	Present
7.	Prof. Shyam Shanker Singh	Member	Present
8.	Dr. Vinod Agrawal	Member	Present
10.	Shri Mahi Pal Singh, Chief Engineer	Representative of Central Electricity Authority (CEA)	Present
11.	Shri Harmeet Sawhney, Scientist 'E'	Representative of Indian Meteorological Department (IMD)	Absent
12.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Absent
13.	Shri Prasoon Gargava, Scientist 'F'	Representative of Central Pollution Control Board	Present
14.	Shri B C Mallick, Principal Chief Engineer	Special invitee as Representative of Central Electricity Authority (CEA)	Present
15.	Shri Sundar Ramanathan	Scientist 'F' & Member Secretary	Present
16.	Dr. Rajesh Prasad Rastogi	Scientist 'D'	Present

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ANNEXURE-II

APPROVAL OF CHAIRMAN – EAC

1/2/26, 11:54 AM (374 unread) - Inbox - Mail (rp.rastogi@gov.in)

Fianl MoM of the 35 EAC - Thermal held on 24 Dec 2025

Inderpal Singh Matharu <matharu0204@gmail.com>
Fri, 02 Jan 2026 11:46:39 AM +0530 INBOX
"Sundar Ramanathan" <r.sundar@nic.in>, "RAJESH PRASAD RASTOGI" <rp.rastogi@gov.in>
TLS Learn more

Warning: Flagged by your organization rules
The email has been sent from an external organization. Be alert when clicking any links, downloading attachments or sending sensitive information to this sender.

Dear Sundar ji,
Thanks for sharing the Final draft MoM of the 35th EAC (Thermal) meeting held on 24th December, 2025. All the points discussed in the said meeting and points which were amended in the zero draft of it, have been incorporated. Hence I approve the Final MoM of the 35th EAC (Thermal) held on 24th December2025.

Sincerely yours
Inder Pal Singh matharu
Chairman
Expert Appraisal Committee
Coal mining and Thermal Power
MoEF&CC, GoI