



सत्यमेव जयते

File No: J-13012/144/2010-IA-II(T)
Government of India
Ministry of Environment, Forest and Climate
Change
IA Division



Dated 28/10/2024



To,

Sh. R N Shukla
M/s Adani Power Limited
Adani Corporate House, Shantigram, Nr. Vaishnodevi Circle, S.G Highway, Khodiyar, Ahmedabad Pin - 382421., Ahmedabad
e-mail: rn.shukla@adani.com

Subject: Proposed 4x800 MW Coal Based Ultra-Super Critical Thermal Power Plant (USCTPP) by M/s Anuppur Thermal Energy (MP) Private Ltd. at Villages Chhatai, Majhtoliya and Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh – Grant of Terms of Reference (ToR)- regarding

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Proposed 4x800 MW Coal Based Ultra Super Critical Thermal Power Plant (USCTPP) at Villages Chhatai, Majhtoliya & Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh by ANUPPUR THERMAL ENERGY (MP) PRIVATE LIMITED submitted to Ministry vide proposal number IA/MP/THE/495356/2024 dated 19/09/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24A0601MP5438257N
(ii) File No.	J-13012/144/2010-IA-II(T)
(iii) Clearance Type	TOR
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(d) Thermal Power Plants
(vi) Sector	Thermal Projects Proposed 4x800 MW Coal Based Ultra Super Critical Thermal Power Plant (USCTPP) at Villages Chhatai, Majhtoliya & Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh by ANUPPUR THERMAL ENERGY (MP) PRIVATE LIMITED
(vii) Name of Project	
(viii) Name of Company/Organization	M/s Adani Power Limited
(ix) Location of Project (District, State)	ANUPPUR, MADHYA PRADESH
(x) Issuing Authority	MoEF&CC

(xii) Applicability of General Conditions	yes
(xiii) Applicability of Specific Conditions	no

3. M/s Anuppur Thermal Energy (MP) Private Limited has made an application online vide proposal no. IA/MP/THE/495356/2024 dated 19/09/2024 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.

4. The proposed project activity is listed under category A of item 1(d) ‘Thermal Power Plants’ of EIA Notification 2006 (as amended) as the power generation capacity of the proposed project is beyond the threshold capacity of 500MW i.e. 3200 MW and requires appraisal at Central level. The interstate boundary (Madhya Pradesh- Chhattisgarh) is 0.7 km towards North from the project boundary.

5. The instant proposal was considered in the 13th meeting held on 01.10.2024. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

Details submitted by the project proponent

6. The instant proposal is for grant of Terms of Reference for Proposed 4x800 MW Coal Based Ultra-Super Critical Thermal Power Plant (USCTPP) at Village Chhatai, Majhtoliya and Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh by M/s Anuppur Thermal Energy (MP) Private Limited.

7. Previously, Environmental Clearance (EC) was granted by the MoEF&CC, New Delhi vide File no. J 13012/144/2010-IA. II (T) dated 27.11.2012 to M/s Welspun Energy Anuppur Pvt. Ltd. for 1320 (2x660) MW Thermal Power Plant. Subsequently, M/s Welspun Energy Anuppur Pvt. Ltd. had obtained Consent to Establish (CTE) from Madhya Pradesh Pollution Control Board (MPPCB) vide letter dated 18.07.2013. Further, the MoEF&CC issued Transfer of Environmental Clearance to Anuppur Thermal Energy (MP) Private Ltd (ATEMPPL) & validity extension up to 26.11.2022, New Delhi vide letter No. F. No: J-13012/144/2010-IA. II(T) dated 07.01.2020. There is no activity undertaken at the site except the boundary wall construction. The validity of the EC lapsed on 26/11/2023. Now the configuration has changed from 2x660 MW to 4x800 MW in an area of 371 ha and a new reference (de novo) has been made through this fresh application for grant of ToR.

8. Environmental site settings:

S. No.	Particulars	Details	Remarks																
i.	Total land	371 ha [Private land: 312 ha + Govt. land 59 ha] <table border="1"> <thead> <tr> <th>Description</th> <th>Area in Ha</th> </tr> </thead> <tbody> <tr> <td>TPP Site</td> <td>85</td> </tr> <tr> <td>Ash Dyke</td> <td>47</td> </tr> <tr> <td>Township</td> <td>13</td> </tr> <tr> <td>Raw Water Reservoir</td> <td>30</td> </tr> <tr> <td>Green Belt</td> <td>123</td> </tr> <tr> <td>Others (Coal stack yard)</td> <td>73</td> </tr> <tr> <td>Total</td> <td>371</td> </tr> </tbody> </table>	Description	Area in Ha	TPP Site	85	Ash Dyke	47	Township	13	Raw Water Reservoir	30	Green Belt	123	Others (Coal stack yard)	73	Total	371	
Description	Area in Ha																		
TPP Site	85																		
Ash Dyke	47																		
Township	13																		
Raw Water Reservoir	30																		
Green Belt	123																		
Others (Coal stack yard)	73																		
Total	371																		
ii.	Status of Land Acquisition	The land for the proposed project is already in possession with Anuppur Thermal Power Project.																	
iii.	Location	Village: Chhatai, Majhtoliya and Umarda Taluk: Kotma District: Anuppur State: Madhya Pradesh																	
iv.	Existence of habitation & involvement of R&R, if any.	No R&R Issue is involved.	R & R not required.																
v.	Latitude and Longitude	The geographical co-ordinates of the site are as follows:																	

of all corners of the project site.	S. No.	Latitude	Longitude
	1	23°22'19.89"N	82° 1'53.98"E
	2	23°22'18.06"N	82° 2'0.52"E
	3	23°22'12.97"N	82° 2'0.45"E
	4	23°22'13.67"N	82° 2'4.48"E
	5	23°22'8.45"N	82° 2'12.47"E
	6	23°22'4.50"N	82° 2'17.58"E
	7	23°22'8.82"N	82° 2'20.22"E
	8	23°22'8.77"N	82° 2'21.31"E
	9	23°22'5.89"N	82° 2'29.35"E
	10	23°22'4.47"N	82° 2'36.33"E
	11	23°22'5.47"N	82° 2'37.69"E
	12	23°22'5.68"N	82° 2'38.70"E
	13	23°22'7.07"N	82° 2'38.80"E
	14	23°22'8.22"N	82° 2'42.45"E
	15	23°22'12.24"N	82° 2'44.21"E
	16	23°22'15.22"N	82° 2'48.91"E
	17	23°22'15.91"N	82° 2'49.28"E
	18	23°22'15.64"N	82° 2'50.28"E
	19	23°22'20.34"N	82° 2'52.56"E
	20	23°22'5.23"N	82° 3'34.52"E
	21	23°22'3.48"N	82° 3'34.48"E
	22	23°22'0.29"N	82° 3'32.98"E
	23	23°21'56.30"N	82° 3'32.35"E
	24	23°21'55.70"N	82° 3'33.77"E
	25	23°21'54.47"N	82° 3'33.76"E
	26	23°21'54.53"N	82° 3'33.15"E
	27	23°21'51.71"N	82° 3'32.75"E
	28	23°21'51.61"N	82° 3'31.76"E
	29	23°21'51.82"N	82° 3'30.40"E
	30	23°21'49.22"N	82° 3'29.72"E
	31	23°21'48.72"N	82° 3'30.55"E
	32	23°21'42.81"N	82° 3'27.66"E
	33	23°21'40.89"N	82° 3'29.54"E
	34	23°21'39.63"N	82° 3'28.83"E
	35	23°21'41.37"N	82° 3'25.84"E
	36	23°21'38.58"N	82° 3'24.36"E
	37	23°21'37.44"N	82° 3'27.10"E
	38	23°21'36.93"N	82° 3'26.95"E
	39	23°21'36.83"N	82° 3'27.15"E
	40	23°21'32.43"N	82° 3'26.01"E
	41	23°21'32.22"N	82° 3'26.80"E
	42	23°21'31.91"N	82° 3'26.71"E
	43	23°21'33.07"N	82° 3'22.52"E
	44	23°21'33.25"N	82° 3'14.24"E
	45	23°21'31.80"N	82° 3'13.50"E
	46	23°21'31.88"N	82° 3'13.28"E
	47	23°21'31.32"N	82° 3'12.93"E
	48	23°21'31.88"N	82° 3'11.90"E
	49	23°21'30.46"N	82° 3'10.80"E
	50	23°21'30.24"N	82° 3'11.27"E
	51	23°21'28.12"N	82° 3'10.50"E
	52	23°21'26.05"N	82° 3'13.76"E

		53	23°21'20.90"N	82° 3'8.64"E	
		54	23°21'20.65"N	82° 3'6.57"E	
		55	23°21'21.91"N	82° 3'1.50"E	
		56	23°21'19.82"N	82° 3'0.83"E	
		57	23°21'20.19"N	82° 2'56.99"E	
		58	23°21'19.89"N	82° 2'56.84"E	
		59	23°21'20.21"N	82° 2'55.86"E	
		60	23°21'19.94"N	82° 2'55.24"E	
		61	23°21'20.16"N	82° 2'53.46"E	
		62	23°21'21.78"N	82° 2'49.36"E	
		63	23°21'20.28"N	82° 2'46.78"E	
		64	23°21'22.93"N	82° 2'46.03"E	
		65	23°21'22.44"N	82° 2'44.66"E	
		66	23°21'24.60"N	82° 2'43.06"E	
		67	23°21'26.67"N	82° 2'44.74"E	
		68	23°21'27.33"N	82° 2'39.68"E	
		69	23°21'29.96"N	82° 2'37.04"E	
		70	23°21'31.14"N	82° 2'33.79"E	
		71	23°21'33.86"N	82° 2'29.44"E	
		72	23°21'35.33"N	82° 2'23.91"E	
		73	23°21'34.04"N	82° 2'17.00"E	
		74	23°21'34.90"N	82° 2'12.77"E	
		75	23°21'40.38"N	82° 2'11.95"E	
		76	23°21'42.33"N	82° 2'7.24"E	
		77	23°21'44.50"N	82° 2'8.44"E	
		78	23°21'45.08"N	82° 2'7.30"E	
		79	23°21'44.16"N	82° 2'6.23"E	
		80	23°21'45.19"N	82° 2'4.18"E	
		81	23°21'48.04"N	82° 2'5.49"E	
		82	23°21'49.00"N	82° 2'4.86"E	
		83	23°21'47.49"N	82° 2'3.08"E	
		84	23°21'49.11"N	82° 2'2.37"E	
		85	23°21'48.80"N	82° 2'1.83"E	
		86	23°21'49.86"N	82° 2'1.59"E	
		87	23°21'53.00"N	82° 1'52.86"E	
		88	23°21'42.58"N	82° 1'48.69"E	
		89	23°21'53.85"N	82° 1'31.53"E	
		90	23°21'55.12"N	82° 1'32.50"E	
		91	23°21'54.15"N	82° 1'36.08"E	
		92	23°21'52.21"N	82° 1'36.17"E	
		93	23°21'48.90"N	82° 1'39.79"E	
		94	23°21'47.74"N	82° 1'41.95"E	
		95	23°21'49.86"N	82° 1'44.35"E	
		96	23°21'51.56"N	82° 1'39.11"E	
		97	23°21'54.19"N	82° 1'39.55"E	
		98	23°21'56.92"N	82° 1'44.14"E	
		99	23°22'0.54"N	82° 1'45.80"E	
		100	23°22'1.50"N	82° 1'43.22"E	
		101	23°22'1.21"N	82° 1'42.99"E	
		102	23°22'4.81"N	82° 1'31.83"E	
		103	23°22'10.46"N	82° 1'35.06"E	
		104	23°22'13.91"N	82° 1'35.80"E	
		105	23°22'13.16"N	82° 1'36.86"E	

		106	23°22'14.27"N	82° 1'37.84"E	
		107	23°22'11.44"N	82° 1'41.35"E	
		108	23°22'14.90"N	82° 1'44.12"E	
		109	23°22'14.29"N	82° 1'45.66"E	
		110	23°22'10.30"N	82° 1'42.41"E	
		111	23°22'8.86"N	82° 1'44.78"E	
		112	23°22'14.37"N	82° 1'47.90"E	
		113	23°22'13.88"N	82° 1'48.76"E	
		114	23°22'17.63"N	82° 1'52.58"E	
vi.	Elevation of the project site above mean sea level (AMSL)	TPP Site: 562 m ; Ash Pond Site: 565 m			
vii.	Involvement of Forest land if any	No, project does not involved forestland.			
viii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	River Kewai is flowing at 0.04 km in W direction.			
ix.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	There are no. national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km distance from the project site.			
x.	Reserve Forest/ Protected Forest Land	Sr. No.	Particulars	Distance (KM)	Direction
		Reserve Forest (RF) & Protected Forest (PF)			
		1	Nandlal Patera R. F.	1.1	E
		2	Gundur P. F.	3.65	ENE
		3	Dehuli R.F.	5.65	NNE
		4	Mahora R. F.	7.6	WSW
		5	Rukra R.F.	7.7	E
		6	Kelhari P.F.	7.9	N
		7	Belgaon R.F.	11.75	ESE
		8	Mahai R.F.	12	ESE
		9	Khurma P.F.	12.1	N
		10	Biharpur R.F.	12.7	ENE
		11	Pairichua P.F.	13.7	SSW
		12	Malga R.F.	14.3	SSE
xi.	Archaeological sites/monuments/ historical temples etc.	No			
xii.	Whether the project is in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) or within 10 km of CPA/SPA.	No The project area does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) or within 10 km of CPA/SPA.			
xiii.	Availability of	Details shall be submitted with EIA/EMP report			

	Schedule-I species in study area		
xiv.	Seismic zone	Zone-II as per IS 1893.	

9. **Baseline Environmental data:** The proposal is for obtaining ToR. Baseline monitoring will be carried out during Post monsoon season from October' 2024 to December' 2024.

10. **Project cost:** The estimated total project cost is Rs. 36,600 Crores. Total capital cost earmarked towards Environmental Pollution Control measures is Rs. 5,993 Crores.

11. **Employment:** Total Employment will be 550 persons as direct & 50 persons indirect during operation phase. Industry proposes to allocate Rs. 100.00 Crore towards CER (as per Ministry's OM dated 30.09.2020). The details are as below:

Employment Potential	Construction phase	Operation phase
Permanent	350	550
Contractual	250	50
Total	600	600

12. **Power requirement:** Power requirement for the project will be 7.5 MW and during operation will be met from nearby sub stations from the project site during construction phase and during operation phase power requirement will be met from self-generation, i.e. Aux consumption. 3nos. of DG sets will be used as standby during power failure. Stack (height 30m) will be provided as per CPCB norms to the proposed DG sets.

13. **Water Requirement:** Water consumption for thermal power plants as per MoEF&CC vide Notification S.O. 3305 (E) dated 07.12.2015 for all existing CT based plants reduce specific water consumption up to maximum of 3.5 m³/MWh and as per MoEF&CC stipulated norms vide Notification GSR 593 (E) dated 28.06.2018 water allocated to the thermal power plant is 3 m³/MWh for new plants installed after the 1st January, 2017. The total water requirement for the proposed project is 2 m³/MWh, which is well within the stipulated norms of Notification dated 28.06.2018.

Source of Water:	Sone River
Quantity of water requirement:	(6400 KL/hr) 56 MCM/year
Distance of source of water from Plant:	60 Km (from intake point)
Whether barrage/ weir/ intake well/ jack well/ others proposed:	Yes, Intake Well proposed
Mode of conveyance of water:	Pipeline
Status of water linkage:	Permission from WRD Madhya Pradesh for 40 MCM/Year vide letter no. MPCB/SL/225/2010/744 dated 06.07.2011 has already been obtained for 2x660 MW TPP. The application to enhance the water allocation to 56 MCM /annum has been submitted vide letter dated 22.07.2024
(If source is Sea water) Desalination Plant Capacity	Not Applicable
Mode / Management of Brine:	Not Applicable
Cooling system	Induced draft cooling towers

14. The water drawl permission from WRD Madhya Pradesh for 40 MCM/Year vide letter no. MPCB/SL/225/2010/744 dated 06.07.2011 has already been obtained for 2x660 MW TPP. The application to enhance the water allocation to 56 MCM /annum has been submitted by the proponent vide letter dated 22.07.2024 and the same is yet to be obtained.

15. Solid/ Hazardous waste generation and its management:

S. No	Particular	Quantity	Management & disposal
i.	Municipal Solid waste (MSW)	90 TPA	MSW anticipated will be collected; segregated using color coded waste bin collection system and handed over for final disposal to municipal corporation waste disposal site. Organic component of MSW will be converted to compost using Organic waste converters & used as manure for

S. No	Particular	Quantity	Management & disposal
			landscaping within plant premises.
ii.	Fly Ash & Bottom Ash	6440000 TPA	Fly ash: Evacuation in dry form through vacuum & pressurised air conveying to fly ash storage silos for ultimate disposal by truck/rail wagons for cement and brick manufacturing, filling mines etc. Provision for disposal by Medium Concentration Slurry Disposal system along with bottom ash from a dedicated MCSD silo to Ash Pond during emergency. Bottom ash: Extraction in wet form and collection in hydrobins for disposal by closed trucks. Efforts will be made to utilize 100% bottom ash as per MoEFCC guidelines. Bottom ash shall be disposed through lean slurry to Ash dyke in case of exigencies.
iii.	Construction Waste	350000 Tonnes	Inert component of Construction waste shall be reused in grading & levelling of within premises. Remaining Construction waste will be handed over to contractor for disposal as per C&D Waste rules 2016.
iv.	Hazardous waste Used / Spent Oil (Cat. 5.1); Waste or residues containing oil (Cat. 5.2); Empty Barrels/containers/ liners contaminated with hazardous chemicals/ wastes (Cat. 33.1) & Spent ion exchange resin containing toxic metals (Cat. 35.2)	125 TPA	These are collected & stored on a designated store / yard with proper shed & impermeable flooring. Hazardous Waste will be disposed off in timely manner as per the Hazardous And Other Wastes (Management and Transboundary Movement) Rules, 2016.
v.	E-waste	3.5 TPA	Handed over to the CPCB/SPCB authorised recyclers.
vi.	Battery waste	7 TPA	Handed over to the CPCB/SPCB authorised recyclers.
vii.	Bio-medical waste	0.12 TPA	Disposed as per the Bio Medical Waste Management Rules, 2016.

16. Effluent of quantity 2125 KLD will be generated. The domestic sewage to the tune of 25 KLD will be treated through STP & industrial effluent to the tune 2100 KLD will be treated in ETP. The plant will be based on Zero Liquid discharge system.

17. In the proposed unit, 585 tonnes per hour (TPH) of each coal-fired boiler will be installed. Electrostatic precipitator (ESP) with a stack of height of 120 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boilers.

18. **Ash Pond area:** As per MoEF&CC Notification S.O. 5481(E), dated 31.12.2021 and amendments stipulated ash pond area for thermal power plant is 0.1 hectare per Mega Watt (MW). The ash pond area proposed for power plant is 47 ha i.e. 12.67 % of the total project area 371 ha. Total ash pond area is required for the proposed plant is within the stipulated norms dated 31.12.2021.

19. **Details of Coal Linkage:** The total coal requirement for the project is about 13.3 million MTPA. The coal linkage of proposed thermal power plant is sourced from coal mines of Gondbahera Ujheni East Coal Mine & Mara II Mahan Coal Mine. Coal Supply Agreement for 7.0 million MTPA (cumulative) of coal has been obtained from Mahan Energen Limited (5.0 million MTPA) and MP Natural Resource Private (2.0 million MTPA) vide letter no. dated 5.09.2024. The remaining coal requirement of 6.3 million MTPA will be procured through E-Auction.

20. **Electricity generation capacity:** Electric generation capacity of the proposed project is as below:

Capacity & Unit Configurations	3200 MW, Configured as 4 x 800 MW
Generation of Electricity Annually	25344000 MW (considering 330 operating days)

21. Details of fuel and Ash disposal:

Fuel to be used:	Coal and Auxiliary Fuel
Quantity of Fuel required per Annum:	For the Proposed Project of 3200 MW, the annual fuel requirement is estimated at 13.3 million MTPA at 85% plant load factor with Design Coal GCV of 3200-4300 KCal/kg. Auxiliary liquid fuels, viz. LDO/HSD requirement per annum: 15000 kilo litres.
Coal Linkage / Coal Block: (If Block allotted, status of EC & FC of the Block)	Quantity and details of Linkage available: 7 million MTPA Name of Block: Gondbahera Ujheni East Coal Mine & Mara II Mahan Coal Mine The method of obtaining remaining coal: 6.3 million MTPA from (E-auction) Ash content in coal: 34-42 (%) Sulphur in coal: 0.4-0.5 (%) Moisture: 11-15 (%) GCV in coal: 3200-4300 Kcal/Kg
Details of mode of transportation of coal from coal source to the plant premises along with distances	Mode of transportation is through Rail Total distance from the source to Rail: 500 km (from Gondbahera Ujheni East Coal mine, Mara II Mahan Coal Mine To TPP)
Fly Ash Disposal System Proposed	Medium concentration slurry. Ratio of water and ash – 35-45%
a. Ash Pond / Dyke: (Area, Location & Co-ordinates) Average height of area above MSL (m) Space left in ash dyke area	Area of proposed Ash Dyke- 47 ha Location: 23°22'4.42"N, 82° 1'50.62"E Average height of area above MSL: 565m
Quantity of a. Fly Ash to be generated b. Bottom Ash to be generated:	6.44 million MTPA 16,612 T/day 4,153 T/day
Stack Height (m) & Type of Flue	120 m Bi flue with FGD

22. Status of Pending Litigation/court case: Details of pending litigation/court case is as follows:

S. No.	Case no./Title	Court Details	Last date of Hearing	Brief Summary of the Case/Subject matter	Next Date/Order Passed	Action taken by PP
i.	WP 20264/2011	Jabalpur High Court	06.03.2024	Violation of Art. 244 & Schedule 5 of Indian Constitution. Legality of Sec. 5(a) of Land Acquisition Act. Challenging MoU.	No next date has been updated yet.	(Inputs given to Advocate regarding reply.) For change the name of the company, it is necessary to file a new Vakalatnama and the company's reply.
ii.	WP 18682/2011	Jabalpur High Court	06.03.2024	Violation of Art. 244 & Schedule 5 of Indian Constitution and ignorance of provision of sec 165 of MPLRC and even without inviting objection under sec 5-A	No next date has been updated yet.	(Inputs given to Advocate regarding reply.) For change the name of the company, it is necessary to file a new

S. No.	Case no./Title	Court Details	Last date of Hearing	Brief Summary of the Case/Subject matter	Next Date/Order Passed	Action taken by PP
						Vakalatnama and the company's reply.
iii.	WP 4739/2012	Jabalpur High Court	04.05.2020	Land Acquisition Act Challenging/Objection to Notification/Procedural Irregularity	No next date has been updated yet.	(Inputs given to Advocate regarding reply.) For change the name of the company, it is necessary to file a new Vakalatnama and the company's reply.
iv.	Revision/55/2019-2020	Anuppur District court (Additional commissioner court.Sah dol)	04.05.2020	Land area dispute due to "Chakbandi (Bandobast) 1965 66"	14.06.2024	
v.	Review 0162/2019/Anuppur/Land revenue.	Anuppur District court (Revenue Board, Gwalior/Before the board member- Sh-Rajesh Bahuguna)	28.10.2022	Diversion Fee (Panchayat Upkar) dispute	No next date has been fixed yet	Review filed against the order dated-29/10/20181 Documents / files of the lower court have been hired. 2- Stay order dated 13.12.2019 was passed in favor of the company. But it has not been extended for the dates beyond the year 2020.The company's lawyer has filed an application in the court that the matter should be heard soon. According to the amendment of Section 59(12) of Madhya Pradesh

S. No.	Case no./Title	Court Details	Last date of Hearing	Brief Summary of the Case/Subject matter	Next Date/Order Passed	Action taken by PP
						Revenue Code, the case has been abated, hence this case should be closed and returned to the sub divisional officer for fresh proceedings.
vi.	Review 0163/2019/ Anuppur/Land revenue.	Anuppur District court (Revenue Board, Gwalior/Before the board member-Sh- Rajesh Bahuguna)	28.10.2022	Diversion Fee (Panchayat dispute Upkar)	No next date has been fixed yet.	Review filed against the order dated-29/10/20181 Documents / files of the lower court have been hired. 2- Stay order dated 13.12.2019 was passed in favor of the company. But it has not been extended for the dates beyond the year 2020.The company's lawyer has filed an application in the court that the matter should be heard soon. According to the amendment of Section 59(12) of Madhya Pradesh Revenue Code, the case has been abated, hence this case should be closed and returned to the sub divisional officer for fresh proceedings.
vii.	Review0164/2019/	Anuppur District	28.10.2022	Diversion Fee	Diversion Fee	Review filed

S. No.	Case no./Title	Court Details	Last date of Hearing	Brief Summary of the Case/Subject matter	Next Date/Order Passed	Action taken by PP
	Anuppur/Land revenue.	court (Revenue Board, Gwalior/ Before the board member- Sh.Rajesh Bahuguna)		(Panchayat Upkar) dispute	(Panchayat Upkar) dispute	against the order dated- 29/10/20181 Documents / files of the lower court have been hired. 2- Stay order dated 13.12.2019 was passed in favor of the company. But it has not been extended for the dates beyond the year 2020.The company's lawyer has filed an application in the court that the matter should be heard soon. According to the amendment of Section 59(12) of Madhya Pradesh Revenue Code, the case has been abated, hence this case should be closed and returned to the sub divisional officer for fresh proceedings.
viii.	RCS A/0000014 /2020	Anuppur District court (Civil Judge Class 2 Court, Kotma)	11.05.2024	Civil suit is for Declaration, partition and permanent Injunction	The proceedings have been closed	In this case, a settlement has been reached between both parties. Based on the settlement, the case has been settled by the order of the Lok Adalat dated 11/05/2024.

S. No.	Case no./Title	Court Details	Last date of Hearing	Brief Summary of the Case/Subject matter	Next Date/Order Passed	Action taken by PP
						The proceedings of the said case have finally ended.

PP informed that out of 8 court cases listed above there is no any litigation in respect of the subject matters pertaining to the Environment & Forests.

23. Benefits of the project: The proposed project will improve the power supply position in the state as well as in India, which is vital for economic growth as well as improving the quality of life. The setting up of the proposed project will lead to generation of direct and indirect employment and benefits to the overall socio-economic development of the region. Skill development and capacity building like vocational training, income generation programs and entrepreneurship development program shall also be conducted. The project will also attract the high-income groups to invest in the region and thus bring about economic growth of the region.

24. EAC members and Ministry was in receipt of a representation on the project mentioned above. The said representation was deliberated by the EAC and also made available to the project proponent. The issues stated in the representation and submissions made by the proponent are as below:

S No.	Points stated in the representation	Submission by PP
1.	At the outset, we would like to request the committee members to direct the project proponent to submit the Need assessment and cost-benefit analysis for the power plant, its ancillary activities, and their expansion, given the Hon'ble Prime Minister's announcement at COP26 that, Ministry of New and Renewable Energy is committed to achieving 500 GW of installed electricity capacity from non-fossil fuel sources by 2030. After which many of the existing coal-fired thermal power plants may not be required.	As per the National Electricity Plan (NEP) published by the Central Electricity Authority, MoP in March-2023, India's Peak Electricity Demand is likely to increase to around 366 GW in FY 2031-32 from the current Peak Demand of around 216 GW in FY 2022-23. The Base Demand is also expected to increase to 2473 BU by FY 2031-32. CEA also predicts that India's likely Installed Capacity by the end of FY 2031-32 will be around 900 GW, up by around 484 GW as compared to the present Installed Capacity. Similarly, the current installed capacity of MP State is around 25,337 MW. Over 63% of the capacity is through coal-based sources. The proposed project can help in meeting the growing power demand and requirement of the country & improve Gross State Domestic Product (GSDP). It not only ensures a reliable power supply for the region but also supports economic growth, thereby strengthening the overall energy landscape in Madhya Pradesh.
2.	The necessity for the new Thermal Power Plant depending upon the demand for electricity has to be considered especially when there are other power plants functioning in the State of Madhya Pradesh which are sufficient for the purpose of meeting the need and even the electricity generated in those units is not properly utilized.	The proposed power plant in Madhya Pradesh holds significant regional importance by addressing the surging power demand in the state. The current installed capacity of MP State is around 25,337 MW. Over 63% of the capacity is through coal-based sources. The proposed expansion of project can help in meeting the growing power demand and requirement of the country & improve Gross State Domestic Product (GSDP). It not only ensures a reliable power supply for the region but also supports economic growth, thereby strengthening the overall energy landscape in Madhya Pradesh.
3.	Further, lot of other reusable energy generation systems	The Renewable power is not available on round the

S No.	Points stated in the representation	Submission by PP
	are being adopted for the purpose of reducing the exploitation of natural resources for production of electricity and this is being considered by the Central Government and if that is properly implemented, there will not be any necessity for a new power plant in the State of Madhya Pradesh.	clock basis due to its inherent intermittent nature and Hydro power capacity majorly depends on the rainfall which is uncertain. This makes coal-based power plant very essential for India to meet the demand continuously and reliably. Moreover, the coal-based power will continue to play a significant role for base load requirement.
4.	As per the toposheet provided under Form I along with project boundary superimposed on it, the proposed project is abutting Kewai River. The map also shows presence of Dehuli Reserved Forest, Gundru Protected Forest, Rukra Reserved Forest, and Nandlal Patera Protected Forest within 5 Km radius from the proposed project site.	The Kewai river is about 40.0 m away from the project boundary which is shown in clearly earmarked in the submitted proposal. The plant is more than 500 m from the river. Moreover, a thick green belt (>100 m) will be developed in the area which is nearing river boundary. All the necessary measures will be taken to avoid impact on the river, which will be detailed during EIA studies. The project envisages use of the best environmental safeguard practices such as high efficiency ESP, FGD, SCR for ensuring minimal / negligible impact from the proposed project. The quantification of the impact will be enumerated and presented in the EIA studies.
5.	The proposed project site also falls in the wildlife corridor of Bandhavgarh Tiger Reserve, Kanha National Park, Phen Wildlife Sanctuary, Sanjay Dubri Wildlife Sanctuary in Madhya Pradesh and Achanakmar Wildlife Sanctuary, Sanjay National Park, Tamoripingla Wildlife Sanctuary in Chhattisgarh.	As per "Connecting Tiger Populations for Long-Term Conservation" report by National Tiger Conservation Authority & Wildlife Institute of India, Dehradun, <u>there is no wildlife corridor within 15 km radius of the project site.</u> Map showing project boundary vis-à-vis the tiger corridor is enclosed.
6.	As per the report titled 'A Policy Framework for Connectivity Conservation and Smart Green Linear Infrastructure in the Central Indian and Eastern Ghats Tiger Landscape' published by Wildlife Conservation Trust, the proposed project area falls under medium to high tiger connectivity area.	As per "Connecting Tiger Populations for Long-Term Conservation" report by National Tiger Conservation Authority & Wildlife Institute of India, Dehradun, there is no wildlife corridor within 15 km radius of the project site.
7.	Section 38-O (g) of the Wildlife Protection Act, 1972 will be applicable to the proposed project. Section 38-O (g) states that ' <i>Ensure that tiger reserves and areas linking one PA or Tiger Reserve with another PA or Tiger Reserve are not diverted for ecologically unsustainable uses, except in public interest and the approval of the NBWL and on the advice of the NTCA</i> '.	As per "Connecting Tiger Populations for Long-Term Conservation" report by National Tiger Conservation Authority & Wildlife Institute of India, Dehradun, there is no wildlife corridor within 15 km radius of the project site. Clearance from NBWL is not required since the project does not fall wholly/ partly within ESZ/ 10 kms radius of any National Park/ Wildlife Sanctuary / Notified Conservation Reserve
8.	The Form-I submitted by the project proponent states that the proposal does not involve approval/clearance under the wildlife (protection) act, 1972.	Clearance from NBWL is not required since the project does not fall wholly/ partly within ESZ/ 10 kms radius of any National Park/ Wildlife Sanctuary / Notified Conservation Reserve.
9.	The Form-I also fails to mention the wildlife corridor. The project proponent is trying to misguide the ministry by providing wrong/insufficient information in Form-I.	As detailed earlier there is no wildlife corridor in 10 kms radius of the project site.
10.	We request the committee to direct the project proponent to submit the proposal to National Tiger Conservation Authority (NTCA) and National Board for Wildlife for obtaining wildlife clearances.	The same is not applicable as there is no National Park, Wildlife Sanctuary, wildlife corridor within 15 km radius of the project site.

S No.	Points stated in the representation	Submission by PP
11.	The wildlife corridor needs to be protected for the free movement of Tigers and other large mammals to establish a healthy population.	The contents of para 11 are not applicable. Further, with the thick green belt which will be developed within the project area and outside of the project area as a part of CSR/ CER activity will have a positive impact on the biodiversity.
12.	The proposed project if allowed will have a negative impact on important wildlife corridor impacting the movement of wildlife. It may also lead to an increase in Human-Wildlife Conflict in the area.	As detailed earlier, the project is not lying in the tiger wildlife corridor. We would like to humbly submit that the project is planned to integrate the best environmental practices to minimize the impact on the baseline environment. The implementation of the project will have positive long-term impacts.
13.	We urge the committee to kindly consider the importance of wildlife corridors. The proposal, if permitted, will disturb the already fragmented wildlife corridor. Efforts should be undertaken by the respective authorities to restore the fragmented corridor as it will help in creating a diverse gene pool.	As detailed earlier there is no wildlife corridor in 10 kms radius of the project site.
14.	There are already existing coal mines in the study area and Thermal Power Project Units. The proposed project if permitted will further aggravate the situation. The cumulative impact assessment of all the mines along with their ancillary activities should be carried out. A good example to follow can be found at https://apps.ecology.wa.gov/publications/SummaryPages/1706013.html	The proposed TPP area is earlier obtained EC (2012) & Consent order (2013). Details will be submitted along with EIA-EMP report, if any
15.	We request the authority to direct the project proponent to submit all the details of the proposed ancillary activities including details of sources of coal for the proposed power plant including any new or expansion of the existing road and rail network and transmission lines.	The coal will be sourced from Gondbahera Ujheni East Coal mine, Mara II Mahan Coal Mine and E-Auction. The Nearest Railway Siding 'Bahiatola' is about 14 km from project site. The route map of the same is available.
16.	We urge the committee to kindly consider the importance of wildlife corridors before taking any decision for the proposed project.	PP clarify that there are no designated wildlife corridors within 10 kms radius of the proposed project. We will continue to assess the potential effects on local wildlife and habitats, and we are open to implementing measures that could support biodiversity in the area.
17.	Efforts should be undertaken by the respective authorities to restore the fragmented corridor as it will help in creating a diverse gene pool.	As detailed earlier there is no wildlife corridor in 10 kms radius of the project site.

Deliberations of the Committee

25. The EAC noted the following:

i. The proposal is for 4x800 MW Coal Based Ultra-Super Critical Thermal Power Plant (USCTPP) at Village Chhatai, Majhtoliya and Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh by M/s Anuppur Thermal Energy (MP) Private Ltd.

ii. Earlier, the EC was granted by the Ministry for the above project site vide letter no. J 13012/144/2010-IA. II (T) dated 27.11.2012 to Welspun Energy Anuppur Pvt. Ltd for 2x660 MW. Subsequently, Welspun Energy Anuppur Pvt. Ltd. had obtained Consent to Establish (CTO) vide letter dated 18.07.2013. Further, the MoEF&CC issued Transfer of Environmental Clearance to Anuppur Thermal Energy (MP) Private Ltd (ATEMPPL) & validity extension up to 26.11.2022, New Delhi vide letter No. F. No: J-13012/144/2010-IA. II(T) dated 07.01.2020.

iii. The committee noted that there is no activity undertaken at the site other than boundary wall construction.

iv. The EAC took into consideration the drone survey of the project site and kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH.

v. Total land is 371 ha (Private land: 312 ha + Govt. land 59 ha). Land is already acquired.

vi. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site as ascertained from DSS.

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

viii. River Kewai is flowing at 0.04 km in West direction. The EAC is of the opinion that PP shall furnish the aquatic biodiversity study of Kawai River and water source for the plant along with biodiversity conservation plan. EAC suggested that Green belt to be developed along River. EAC is of the opinion to conduct a Hydrology/Hydrogeological study from the reputed govt. institutions/organizations.

ix. PP submitted that Green belt shall be developed in 123 ha (33.15% of the total plant area) area. Total 2400 lakhs has been allocated for greenbelt development. EAC suggested for Concurrent plantation with native species.

x. The total water requirement for the proposed project is 2m³/MWh, which is well within the stipulated norms of Notification dated 28.06.2018. The water shall be sourced from the Sone River through pipeline. The water drawl permission has already been obtained for 2x660 MW TPP and the application to enhance the water allocation to 56 MCM /annum has been submitted vide letter dated 22.07.2024.

xi. The proposed power plant has total ash pond area 47 ha i.e. 12.67 % of the total project area 371 ha. The EAC is of the opinion that Ash pond shall not be situated in the vicinity of the river side. EAC also suggested to submit the Plan for dry ash collection system for fly and bottom ash.

xii. Transportation of coal from coal source to the plant premises shall be through Rail.

xiii. The estimated total project cost is Rs. 36,600 Crores. Total capital cost earmarked towards Environmental Pollution Control measures is Rs. 5,993 Crores.

xiv. Zero Liquid Discharge (ZLD) System shall be implemented for the proposed project.

xv. The committee noted that as reported by PP there is no forest land involved in the project.

xvi. EAC noted that 08 cases are pending pertaining to Land acquisition and other issues.

xvii. EAC opined that a site visit should be conducted by the Sub-committee of EAC to see the various issues pertaining to the instant project before consideration of EC proposal. The findings of the subcommittee report shall be incorporated in the final EIA/EMP report and the same shall be reported along with the ToR compliance.

Recommendations of the Committee:

26. 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 with Public Consultation to the project for Proposed 4x800 MW Coal Based Ultra-Super Critical Thermal Power Plant (USCTPP) at Village Chhatai, Majhtoliya and Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh by **M/s Anuppur Thermal Energy (MP) Private Limited**, under the provisions of the EIA Notification, 2006, as amended subject to uploading of written submissions on Parivesh portal along with the following specific ToR in addition to the generic ToRs. (**Annexure-1**).

27. In accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC, the Ministry hereby accords Terms of Reference (ToR) to M/s Anuppur Thermal Energy Private Limited for Proposed 4x800 MW Coal Based Ultra-Super Critical Thermal Power Plant (USCTPP) at Village Chhatai, Majhtoliya and Umarda, Tehsil Kotma, District Anuppur, Madhya Pradesh under EIA Notification, 2006 (as amended) with the specific ToRs in addition to generic/standard ToR as per **Annexure 1**.

28. The EIA/EMP report should contain the information in accordance with provisions & stipulations as given in the

specific and standard ToR.

29. You are required to submit the final EIA/EMP prepared as per TORs to the Ministry within 4 years as per this Ministry's Notification vide dated 25.07.2022 for considering the proposal for environmental clearance.

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

31. The Ministry reserves the right to stipulate additional ToR, if found necessary.

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

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

Yours faithfully,

(Sundar Ramanathan)
Scientist 'E'/Additonal Director
Tel: 011- 20819378
Email- r.sundar@nic.in

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Integrated Regional Office, E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016.
3. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
4. The Regional Director, Central Ground Water Board, North Central Region, Block-1, 4th Floor, Paryawas Bhawan Area Hills, Jail Road, Bhopal - 462011, Madhya Pradesh.
5. The Chairman, Madhya Pradesh Pollution Control Board, E-5, Main Rd No. 3, Ekant Park, Arera Colony, Bhopal, Madhya Pradesh 462 016.
6. The Member Secretary, Madhya Pradesh Pollution Control Board, E-5, Main Rd No. 3, Ekant Park, Arera Colony, Bhopal, Madhya Pradesh 462 016.
7. The District Collector, Anuppur, Government of MP.
8. PARIVESH Portal.

Annexure 1

Specific Terms of Reference for (Thermal Power Plants)

1. [A] Environmental Management And Biodiversity Conservation

S. No	Terms of Reference
1.1	All the parameters as mentioned in the National Ambient Air Quality Standards (NAAQS) shall be monitored by the project proponent.
1.2	A Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 10-km radius of the proposed project shall be conducted and the same shall be included the in EIA/EMP report. Details of industrial units present in 10 Km radius of the power plant shall be earmarked in map and submitted.
1.3	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.
1.4	Impact of release of cooling tower water on aquatic life need to be studied by a reputed govt. institute and action plan for complying with the mitigation measures shall be submitted.
1.5	Project proponent shall commission a study on Hydrology and Hydrogeology of the project site as well as the study area of the project site through a reputed institute/Government organization. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
1.6	Radioactivity studies along with coal analysis to be provided (sulphur, ash percentage and heavy metals including Pb, Cr, As and Hg). Details of auxiliary fuel, if any including its quantity, quality, storage, etc should also be given.
1.7	A comparative chart shall be prepared with changes observed from the previous baseline study and present baseline study.
1.8	PP should submit the detailed plan in tabular format (year-wise for the life of the project) for concurrent afforestation and green belt development in and around the project site. 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. In addition to this, PP should show on a surface plan (5- year interval for life of project) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. 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 of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at project boundary the plantation should be planned in such a way that it should be completed within 2 years only.
1.9	Action plan for development of three tier plantation programme (33 % of total project cover area) along the periphery of the project boundary including on the Kewai river side shall be provided. Plan shall be dully approved by the local forest department. PP shall submit concurrent plantation plan.
1.10	Biodiversity analysis of the surrounding area to be done through any reputed Government institutions. A certificate from PCCF, wild-life to be submitted with respect to wildlife corridor, if any, passing adjacent to the project boundary.

S. No	Terms of Reference
1.11	Detailed action plan shall be prepared for maintenance of air pollution control equipment for proposed units and shall be incorporated in EIA/EMP report.
1.12	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.
1.13	Action plan for dry ash collection system shall be submitted.
1.14	Action plan for disposal of ash through High Concentration Slurry Disposal shall be submitted.
1.15	HFL data for Kewai River duly certified by the Irrigation department of the State Government as per the Ministry O.M. dated 14/02/2022 pertaining to siting of industries in close proximity to the river along with the action plan for conservation of the same shall be submitted as the said River is flowing at a distance of 0.04 km in West direction of the project site.
1.16	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. No additional ash dyke area beyond the earmarked area of 47 ha is permitted.
1.17	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.
1.18	Details pertaining to water source, treatment and discharge should be provided.
1.19	PP shall submit action plan for using treated Sewage/Domestic wastewater for its operations.
1.20	Project Proponent to conduct Environmental Cost Benefit Analysis for the project in EIA/EMP Report.
1.21	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.
1.22	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.

S. No	Terms of Reference
1.23	PP shall provide the details of transportation of flyash 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.
1.24	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.
1.25	Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.
1.26	PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.
1.27	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.
1.28	PP 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.
1.29	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.

2. [B] Disaster Management

S. No	Terms of Reference
2.1	A Disaster Management Plan shall be prepared and incorporated in the EIA/EMP report

3. [C] Socio-economic Study

S. No	Terms of Reference
3.1	The Public Health Delivery 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.
3.2	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

S. No	Terms of Reference
	the detailed activities proposed with year-wise budgetary provision (Capital and recurring) for 10 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.
3.3	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.
3.4	Demographic details and land use change details in 10 km area shall be submitted.

4. [D] Miscellaneous

S. No	Terms of Reference
4.1	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 modelling.
4.2	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.
4.3	PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
4.4	Detailed description of all the court cases including all directions given by the apex and currents status of them shall submit.
4.5	PP should provide in the EIA Report details of all 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 grant of EC.
4.6	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.
4.7	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.
4.8	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.

S. No	Terms of Reference
4.9	Activities shall be prepared based on the issues arise during public hearing conducted and fresh written submission with defined timeline and budgetary provisions.
4.10	Aerial view video of project site and transportation route proposed for this project shall be recorded through drone and be submitted.
4.11	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.
4.12	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.
4.13	The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
4.14	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.
4.15	A site visit of the EAC sub committee shall be conducted and its recommendations will form part of the TOR.

Standard Terms of Reference for (Thermal Power Plants)

1. Statutory Compliance

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

2. Details Of The Project And Site

S. No	Terms of Reference
2.1	Executive summary of the project indicating relevant details along with recent photographs of the

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

3. Ecology Biodiversity And Environment

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

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

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

4. Environmental Baseline Study And Mitigation Measures

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

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

5. Environmental Management Plan

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

6. Green Belt Development

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

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

7. Socio-economic Activities

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

S. No	Terms of Reference
	excellent follow up plan of action wherever required.

8. Corporate Environment Policy

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

9. Miscellaneous

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