

MINUTES OF THE 5th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER PROJECTS HELD ON 30th DECEMBER, 2020

The 5th Meeting of the re-constituted EAC (Thermal Power) organised by the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi was held on 30th December, 2020 through videoconference under the Chairmanship of Shri Gururaj P.Kundargi. The list of Members present in the meetings is at **Annexure A**.

Item No.5.0: CONFIRMATION OF THE MINUTES OF THE 4th EAC MEETING

The Minutes of the 4th EAC (Thermal Power) meeting held on 17.11.2020 were confirmed in the meeting.

Item No. 5.1: CONSIDERATION OF PROJECTS

Item No.:5.1.1: 55 MW Dual Fuel Based Power Project at Andaman & Nicobar by M/s NTPC VIDYUT VYAPAR NIGAM LIMITED – Environment Clearance – reg. [Proposal No. IA/AN/THE/113957/2019; F. No. J-13012/14/2018]

The Project Proponent along with the consultant made the detailed presentation on the project and provided the following information to the EAC:

1. M/s. NTPC Vidyut Vyapar Nigam Limited (NVVN), (A wholly owned subsidiary of NTPC Ltd.) proposes to construct Andaman & Nicobar Gas Power Project of 55 MW capacity at Hope Town in Ferrargunj Tehsil in South Andaman District, Andaman & Nicobar Islands.
2. MOEF&CC vide letter No. J-13012/14/2018-IA.II (T) dated 02.08.2019 and its amendment dated 22.10.2019 & 29.01.2020 accorded Terms of Reference for undertaking EIA study for the proposed power project.
3. Online application for Environment Clearance was submitted to MOEF&CC on 23.12.2020.
4. M/s. VIMTA Labs Limited (VLL), Hyderabad, a QCI/NABET accredited consultant has been engaged for undertaking EIA study and preparation of Environmental Management Plan for the proposed Project.
5. Public Hearing was conducted on 29th September 2020 at Panchayat Hall (Hopetown), in Ferrargunj Tehsil in South Andaman District, Andaman & Nicobar Islands.
6. **Location:** The project site is located at a distance of 3.1 km in North direction from Port Blair city and 4.5 km in NNW direction from Veer Savarkar International Airport in Hope Town at Ferrargunj Tehsil in South Andaman District of Andaman & Nicobar Islands.
7. The highway NH-223 is at a distance of 8.4 km in WNW direction from the proposed site.

The entire project area falls in the Survey of India (SOI) Toposheet No. C46C10 (87 A/10). The proposed site located at Hope Town, A&N is about 2 acres of barren land adjacent to the seashore.

8. No acquisition of land is involved for project site; therefore, no R&R issues are involved.
9. The ecologically sensitive areas within 10 km. of the project site are as follows:

Reserve Forest/ Protected Forest	National Parks & Wildlife Sanctuary
<ul style="list-style-type: none"> • Mount Harriet Shoal Bay RF (0.7 km, N); • Mangrove Swamp (2.5 km, WNW); • Namunaghar PF (2.8 km, SW); • Port Mouat Brindaban RF-II (4.5 km, WNW); • Port Mouat Brindaban RF-I (5.1 km, W); • Jirkatang RF (5.6 km, NW); • South Andaman RF (8.5 km, N); • Birch Ganj PF (8.6 km, SSE); and • Port Mouat PF (9.1 km, SW). 	<ul style="list-style-type: none"> • Mt. Harriet National Park (3.4 km, NNE); • Ross Island (Netaji Shubash Chandra Bose Island) (4.3 km, SSE) • Snake Island-I (7 km, SSE); • Snake Island-II (7.1 km, SSE); and • Loha Barrack crocodile sanctuary (11.2 km, SW).

10. A&N Wildlife Department vide letter no. CWLW/WL/236/Vo1-I/152 dated 09.09.2019 has communicated that wildlife clearance is not required for the proposed project.
11. The capacity of the proposed project would be 55 MW. The power plant will work on Liquid Natural Gas (LNG), based on Otto Cycle. At full load, efficiency of the engine is in the order of 45%. The major components of LNG based Power Project are as follows:
 - i. Engine and its Auxiliaries
 - ii. Alternators, Transformers and Switchyard
 - iii. Control and Instrumentation Systems
 - iv. Air Pollution Control Systems
 - v. Water Intake and Treatment Systems
 - vi. Auxiliary Cooling System
 - vii. Site Drainage, Effluent Treatment Systems with facilities for recycle and reuse

12. Topography of the project: The proposed site is located on rocky and barren land. The topography of the project site is undulating and it is situated along the seashore. The site is having an elevation of 2 meters above MSL flanked between Sea on front side & stiff rock hill on backside. The land is Government owned and is under physical possession of NVVNL. No forest land is involved. The land is away from the navigational channel and other marine traffic.

13. Water requirement: The water requirement for the proposed project is estimated at around

8 m³/day (approx. 0.33 m³/hr) and will be required only for makeup for engine cooling, yard cleaning, potable water and initial filling of fire water tank. As sea water desalination will be adopted, around 25 m³/day (approx. 1.04 m³/hr) of water will be drawn from the sea. The project will be provided with sweet drinking water supply.

14. The fuel requirement for the project is 0.07 MTPA LNG, which would be met from a Floating Storage Re-gasification Unit (FSRU) as Gas Supply Infrastructure, to be established separately near the power project.
15. The baseline data monitoring studies have been carried out by M/s. VIMTA Labs Limited (VLL), Hyderabad from March 2019 to February 2020 representing pre-monsoon season, monsoon & post-monsoon seasons.
16. There is no water body/nallah passing through the site area, hence no diversion of nallah/drain is required for the project.
17. Density of phytoplankton ranged from 8700 to 21100 Nos./L and total number of phytoplankton (Species) varies from 13 to 23 Nos. In the present study, 35 species/taxa of zooplankton were recorded in the coastal waters of Hope Town. Zooplankton density was higher during high tide than low tide.
18. Draft EIA Report prepared by M/s. VIMTA Labs Limited (VLL), Hyderabad was submitted to A&N Pollution Control Committee, and the Public Hearing was conducted on 29th September 2020 at Panchayat Hall (Hopetown), in Ferrargunj Tehsil in South Andaman District, Andaman & Nicobar Islands.
19. The Final EIA Report has been prepared incorporating the issues raised during Public Hearing and action plan to address the same. The conclusions of EIA are:
 - The proposed project meets the compliance requirements of various environmental regulations;
 - Adoption of environmentally friendly best management practices shall result in minimising the impacts on environment;
 - Community impacts of the project will be beneficial, as the project will generate significant economic benefits for the region; and
 - With the effective implementation of the Environment Management Plan (EMP) during the planning, design, construction and operation phases, the development and production project can proceed without significant negative impact on the local environment. All the infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety for the labour force during construction phase and casual workers including truck drivers during operation phase will be facilitated.
20. In addition to EIA Study, Marine EIA studies were also carried out by National Institute of Ocean Technology (NIOT), Chennai for the proposed Gas Power Project (55MW) and associated Floating Storage Regasification Unit (FSRU). The findings of the Marine

Study have been incorporated in EIA Report at appropriate places.

21. The present construction activity is confined to land side and will be of shorter duration, hence the impact on marine waters will be insignificant.
22. The run-off water from the roof of the structures and paved areas will be collected through storm water drainage system and lead to rain water harvesting structures.
23. The proposed project site is located within Island Coastal Regulation Zone-III (ICRZ-III). A&N Coastal Zone Management Authority (A&NCZMA) in its meeting held on 10.04.2019 considered the project proposal and recommended to National Coastal Zone Management Authority (NCZMA) for CRZ clearance with exemption for locating the power plant in ICRZ-III as a special case.
24. A&NCZMA forwarded its recommendations and Minutes of Meeting (MOM) to NCZMA, New Delhi vide letter dated 26.04.2019. Subsequently, Ministry of Shipping, Government of India vide its Gazette Notification dated 02.03.2020 has notified the land area within 50 Yards of High-Water Mark as the landward port limit of Hope Town at Port Blair within the Port Limit, which covers the project site.
25. All the environmental measures shall be integral part of main plant and EPC package. Estimated cost of environmental protection measures would be about Rs. 25 crores out of total project cost of Rs. 376.06 Crores (as on 2nd Quarter of 2020). In addition to the above budget suitable expenditure shall be made towards Corporate Environment Responsibility (CER) in consultation with A&N Administration.
26. The proposed project shall contribute in de-dieselizing the A&N Island which means there shall be significant reduction in environmental pollution due to phasing out of DG Sets. Further the project shall have significant beneficial impacts in terms of boosting the economy of A&N Island due to increased availability of power and improving the self-employment opportunities. With the proposed pollution control measures, the impact on local environment shall be insignificant.
27. A&N Gas project shall be a mechanized and automated plant, therefore, the direct opportunities for employment shall be limited to about 20 persons during operation phase and about 50 persons during the construction phase.
28. The proposed project area was not affected even during the most disastrous tsunami of 2004 because of its peculiar location, surrounded by other islands.
29. There are a few small and medium size wild trees and shrubs existing within the plant site.
30. The area is extensively colonized by the Siam weed (*Chromolaena odorata*), a noxious weed and a notorious invader. The existing trees present towards the sea-side will be retained to the extent possible. The proposed project site has space constraints and layout has been optimized. However, plantation will be developed at all vacant spaces wherever

available.

31. The sub-committee comprising of EAC committee members of Thermal projects visited the site on 2nd November 2019 and their observations and recommendations are recorded in the Minutes of 35th Meeting of the Expert Appraisal Committee held on 14th November 2019.

After detailed deliberations, and considering all the facts of the project as presented by the project proponent, the EAC **deferred** the proposal seeking following information:

- a) There are lot of eco-sensitive areas present in and around the proposed location, therefore, wildlife conservation plan for the area for Schedule -I species including Marine Eco-system to be prepared and submitted.
- b) A plan for marine outfall including options and design to be prepared so that impact on both marine flora and fauna be studied.
- c) Brine water dilution plan is to be prepared.
- d) Technology for wastewater treatment is to be submitted.
- e) A list of activities as a part of CSR to be prepared.
- f) The consultant, NIOT who conducted the study on impact of proposed activity on marine life to be present in the next EAC meeting.

In addition, comments of the CRZ division will also be sought on the proposal.

Item No 5.1.2: Amravati Thermal Power Project by M/s RATTAN INDIA POWER LIMITED - EC Modification – reg. [Proposal No. IA/MH/THE/188275/2020; F. No. - J-13011/49/2008- IA.II (T)]

Project Proponent along with the consultant made the detailed presentation on the project and provided the following information to the EAC: -

1. Environment Clearance granted for 1320 MW (2 x 660 MW) Capacity on 27.02.2009.
2. Project configuration was changed from 1320 MW (2 x 660 MW) to 1350 MW (5 x 270 MW).
3. Environment Clearance was amended on 15.07.2010 without any change in the land requirement i.e. 1045 Acres.
4. Environment Clearance for Phase I 1350 MW (5 x 270 MW) was further extended up to 26.02.2019.
5. Environment Clearance for Phase II 1350 MW (5 x 270 MW) was granted on 27.05.2011 with total land requirement of 1350 acres for both Phase I and II.
6. Phase I of 1350 MW (5x270 MW) was commissioned in March, 2015 and the plant is under operation supplying power to MSEDCL under long term PPA.
7. Although all necessary permits and statutory clearances for **Phase II** were obtained, the project could not be materialized and construction halted due to various reasons as described below:

- a) No new Bids for Long Term PPAs in the Market since the last 5 years due to surplus power scenario not only in Maharashtra State but the entire country.
- b) 13th National Electricity Plan of the Central Electricity Authority made it mandatory for capacity addition in the 13th Plan to be through Super-Critical units only.
- c) The 13th National Electricity Plan further stated that “No coal-based capacity addition is required under any scenario irrespective of RE capacity addition”.
- d) Due to aforesaid reasons and non-availability of New PPAs, Lenders were reluctant to release funds for further construction of Phase II; hence, construction of Phase II had been stalled indefinitely.
- e) Phase I project which is already been commissioned, has surplus land of about 116 acres which is proposed to be surrendered.

8. The proposed revision in Land requirement for Phase -I is as below:

	As per EC granted for Phase I (Acre)	Surplus Land (Acre)	Revised Land requirement (Acre)	Reason for surplus land
Main Plant Area and Miscellaneous	425	25	400	Due to land reduction of common facilities like CHP and other plant ancillaries.
Ash dyke	300	49	251	Required for Ash Storage subsequent to the MoEFCC Notification dated 25.01.2016 regarding 100% Utilization of Fly Ash. Amravati has been achieving 100% Fly Ash Utilization for the past 4 Financial years since April 2016.
Green Belt	260	0	260	No change
Township	60	42	18	Due to reduction of manpower required for Phase II.
Total (in Acres)	1045	116	929	

9. Phase II Construction has been stalled and the Environment Clearance was valid till 26th May, 2018. Hence PP has requested to surrender the Phase II Environment Clearance of 305 acres i.e.(1350 acres – 1045 acres).

10. PP has thus requested to surrender of 421 Acres land (305 Acres from Phase II and 116 Acres from Phase I) and grant Amendment of Environment Clearance for Phase I with revised boundary demarcation for the land requirement of 929 Acres.
11. The PP during the discussion also informed that whatever land portion is released from EC shall be utilized for some other infrastructure project after due permission from MIDC as the land is under long term lease with MIDC and if required, regulatory clearances like Environment Clearance, Consent to Establish/Operate etc.

After detailed deliberations, and considering all facts of the project as presented by the PP, the EAC **deferred** the proposal with the following clarifications/ observations:

- i. A letter from the MIDC (who has leased the land to the PP for the power project) that MIDC has no-objection to the surrender of surplus land including intimation of pending legal issues, if any.
- ii. Regional Office of MoEFCC, Nagpur will submit a latest point-wise compliance report on the EC conditions especially on the implementation of greenbelt development for Phase-I.
- iii. The status of acquisition of land earmarked for Phase II including the current land use pattern of this land. Information regarding Phase II land use also needs to be confirmed by the MIDC.

Item No 5.1.3: Coal based Thermal Power Plant by M/s MECWEL Power Pvt. Ltd. - EC Modification (Validity Extension) – [Proposal No. IA/TG/THE/182658/2020; F. No. - J-13012/12/2020- IA.II (T)]

Project Proponent along with the consultant made the detailed presentation on the project and provided the following information to the EAC:

1. Mecwel Power Private Limited (MPPL) intends to install 300 MW Coal Based Thermal Power Plant at Vellaturu village, Chintalapalem Mandal, Suryapet District, Telangana. Phase – I: 1x150 MW Phase – II: 1x150 MW. The estimated cost of the Project is Rs.1390.3 crores. The unit will initially use imported coal and will switch over to Indian coal once the linkage is established.
2. The proposed power plant will be located in 200 acres.
3. The freshwater requirement of the project is estimated at 11,000 m³/day. This requirement will be met from Krishna River flowing at 1.4 kms from the proposed site.
4. The project will be using either 100% indigenous coal or blend of coal having ratio of 70% indigenous coal and 30% imported coal supported by the secondary fuel oil (HFO/LDO) for start-up.
5. MPPL is entering into a tie-up for supply of imported coal from Indonesian mines. MPPL has applied to Ministry of Coal for long term linkage.

6. The coal will be received by rail to Mellacheruvu railway siding. MPPL propose to construct a railway line for transporting coal from railway siding to the plant site.
7. Mecwel Power Pvt. Ltd. (MPPL) is promoted by M/s Mecwel Constructions Private Limited.
8. EC was granted by SEIAA, Andhra Pradesh (as Category B) on 11.06.2012 for setting up of proposed 300 MW (2 x 150 MW) Coal Based Thermal Power Plant at Village Vellaturu, Mandal Chintalapalem (erstwhile Mellacheruvu), District: Suryapet (erstwhile Nalgonda), State: Telangana (earlier part of erstwhile Andhra Pradesh State).
9. CTE obtained from APPCB on 19.12.2012, but project construction (except for boundary wall & admin office) could not be started for want of Financial Closure and Power Purchase Agreement.
10. Meanwhile the validity of EC granted in 2012 was nearing expiry (on 10.06.2019) and application for Validity Extension of EC was made to SEIAA, Telangana (due to bifurcation of Andhra Pradesh into Andhra Pradesh & Telangana in the year 2014).
11. The SEIAA, Telangana observed that as the project is located within 5 km (at 2.2 Km) radius of the interstate boundary of Andhra Pradesh and Telangana, General Condition is applicable and project to be considered at MoEFCC level.
12. Accordingly, application was made to MoEFCC vide Proposal No. IA/TG/THE/182658/2020 for validity extension of the said EC.
13. Although Environmental Clearance was obtained in 2012, according to PP general disinterest by domestic banks for finance to the Indian Thermal Power Sector.
14. Financial closure not obtained.
15. Not able to attain the Power Purchase Agreement.
16. The company invested funds in Land acquisition and Site Development (land levelling and compound wall construction)
17. Obtained permission for drawal of water from Krishna River.
18. Power Purchase Agreement dated 09.01.2019 signed with M/s. NTPC Vidyut Vyapar Nigam Limited (a wholly-owned subsidiary of the NTPC).
19. The project proponent approached foreign fund houses for the investment in the Company. In-principle acceptance obtained and the final financial closure by 20th January 2021 subject to Technical evaluation.

20. Chronology of events:

Date	Description
31.06.2010	TOR granted by SEIAA, AP vide Lr. NO. SEIAA/AP/NLG- 27/2010- 607
20.12.2011	Public Hearing conducted at Village-Vellaturu, by APPCB
11.06.2012	EC granted by SEIAA, AP vide letter no. SEIAA/AP/NLG-27/2010- 906.
19.12.2012	CTE granted by APPCB vide Order No 273/PCB/CFE/RO- NLG/HO/2012- 4239.
29.05.2019	Application for validity extension of EC submitted to SEIAA, Telangana
10.06.2019	Validity of EC (granted on 11.06.2012) expired on completion of 7 years
01.02.2020	Transfer of file by SEIAA, Telangana to MoEFCC vide Lr. No. SEIA/TS/OL/SRPT-02/2019-377 addressed to the Secretary MoEF&CC, GoI, New Delhi.
04.08.2020	Follow-up by SEIAA, Telangana to MoEF&CC vide Lr. No. SEIAA/TS/OL/SRPT-02/2019-247 for consideration of proposal
10.11.2020	Application for Validity Extension of EC filed with MoEFCC, New Delhi
30.12.2020	Consideration of proposal by EAC (Thermal Power Projects)

21. There is no court case or litigation pending against the project.

22. Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar is engaged as the EIA consultant which is accredited by NABET, QCI with accreditation no. NABET/EIA/1720/SA 0113, dated- 27.07.2020. and Sl. no. in the QCI list is 90 as on Dec. 18,2020.

23. The EIA study was conducted with a focus on assessment of Environmental Impact on Land, Air, Noise, Water, and Socio-Economic environment and to suggest mitigative measures to overcome and minimize the negative impacts of the project. The Ambient Air Quality monitored in the study area was found to be well within the limits of NAAQ standards prescribed for Industrial, Rural & Residential areas. For water environment, nine ground water samples and one surface water sample were collected from within 10 km radius of the plant site. Ten samples were collected to assess the soil quality in the 10 km study area of the plant site which revealed low fertile quality.

24. From the study it has been observed that there are no endangered, endemic or threatened species. The construction of proposed power plant would result in increase of SPM concentrations due to fugitive dust. Frequent water sprinkling in the vicinity of the construction sites would be undertaken to reduce the fugitive dust generation. Noise levels generated during construction activity will be temporary in nature. Onsite workers working in noise prone areas would be provided with earmuffs and plugs.
25. During construction, provision for infrastructural services including water supply, sewage, drainage facilities and electrification will be made. MPPL will ensure proper sanitation facilities for the labour colony and the temporary staff quarters. The site development activities like site clearing, levelling, earth work excavation and infrastructural development like roads etc will lead to stagnation of water. MPPL will make adequate arrangements to ensure proper drainage of water.
26. The power plant is a coal-based where indigenous coal or blended coal would be used as fuel. Particulate Matter, SO₂ and NO_x are the major pollutants emitted due to burning of coal with Sulphur content of 0.40 - 0.60 %. The bottom ash generated in the form of clinker will be collected in the hoppers. The clinker will be ground into ash and removed as slurry for further disposal to ash pond. Dust extraction system of coal crusher and other equipment will be provided with a Bag filter. The outlet will be designed to meet particulate emission of less than 100 mg/Nm³. One chimney of 220 m height composing of bi-flues as per CPCB norms will be provided.
27. Fugitive dust control for control of fugitive dust, water spray arrangement will be provided to spray water all around the coal stockpiles to suppress the dust and to wet the coal while compacting to minimize the dust nuisance. A closed conveyor system will be implemented to minimize the dust nuisance to transport coal from stock yard to the coal mill.
28. During operation, the major noise generating sources will be Steam turbines, compressors, coal crushers, ash slurry pumps and boiler feed water pumps. For noise control, all equipment in the power plant would be designed for noise levels not exceeding 90 dB(A). Proper encasement of noise generating sources will be done to control the noise levels. The proposed greenbelt development will further reduce the noise levels. All operations and maintenance personal working near noise prone areas would be provided with earmuffs & earplugs. A thick greenbelt in an area of 60 acres will be developed all around the plant with a width of 15x25 m, which will act as noise barrier.
29. The water requirement for the project will be about 11,000 m³ /day. Wastewater generation from the plant will be 7,488 m³/day. Treatment for the wastewater generated from the plant will be provided.

30. Total plant area is 200 acres out of which 127 acres is vacant land including an area of 60 acres to be developed under greenbelt to improve aesthetics, control of dust and noise pollution.
31. Ash Management- The peak generation of ash due to use of coal in the proposed 300 MW power plant is estimated to be about 2070 tonnes/day. MPPL will take initiatives to achieve 100% utilization of fly ash within 4 years. MPPL will tie-up with local cement industries for off take of fly ash.
32. Community Development: Implementation of the Power plant will result in the following benefits:
 33. a). Employment will be provided to the eligible persons both during construction and operational phase. A total of about 150 persons under direct employment will be benefited due to implementation of the project. About 1000 (peak) people will benefit during construction activity under each phase.
 - b). Temporary employment for people from the neighbouring villages during construction phase. MPPL will incur an amount of Rs. 100 lakhs for implementing the above measures.
34. Post Project Monitoring Plan: MPPL will monitor all the environmental parameters as per APPCB/CPCB/ MoEF guidelines.
35. The technology adopted will ensure that the impacts due to the proposed power plant are amenable to technological control and effective environmental management. The air emissions, noise generated, and wastewater quality will be regulated to meet the environmental quality standards prescribed by CPCB for thermal power plants.

After detailed deliberations, and considering all the facts of the project as presented by the PP, the EAC **recommended** the proposal for extending the validity of Environmental Clearance granted by SEIAA vide letter No. SEIAA/AP/NLG-27/2010-906 dated 11.06.2012 up to 10.06.2022. No further extension of EC validity will be given and PP will have to apply afresh in the event of non-commissioning of the project.

Participants

1. Shri Gururaj P. Kundargi	Chairman
2. Dr. N.P Shukla	Member
3. Shri SuramyaVora	Member
4. Dr Santosh Kumar	Member
5. Dr. UmeshJagannathraoKahalekar	Member
6. Shri K.B. Biswas	Member
7. Dr.Nandini. N	Member
8. Dr.Unmesh Patnaik	Member
9. Shri Prasant Kumar Mohapatra	Member
10. Shri M.P Singh	Member (Representative of CEA)
11. Prof S S Rai	Member Representative of IIT/ISM Dhanbad
12. Prof R.K. Giri	Member Representative of IMD
13. Shri Yogendra Pal Singh	Member Secretary
