

**MINUTES OF THE 32<sup>ND</sup> MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER PROJECTS HELD ON 02<sup>ND</sup> NOVEMBER, 2022**

The 32<sup>nd</sup> Meeting of the re-constituted EAC (Thermal Power) organized by the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Aliganj, Jor Bagh Road, New Delhi was held on 02<sup>nd</sup> November, 2022 through video conference under the Chairmanship of Shri Gururaj P. Kundargi. The list of Members participated in the meeting is at **Annexure**.

**Agenda Item No. 32.1: Confirmation of the Minutes of the 31<sup>st</sup> EAC meeting**

The Minutes of the 31<sup>st</sup> EAC (Thermal Power) meeting held on 11<sup>th</sup> October, 2022 were confirmed in the meeting.

**Agenda Item No. 32.2**

**Expansion of existing 106.617 MW and 112.45 MW gas based TPP by addition of 395 MW gas based TPPP at village Dhuvaran, Taluk kahambat, District Anand (Gujarat) – Amendment in Environmental Clearance – reg.**

**[Proposal No. IA/GJ/THE/20425/2011; F. No. J-13012/103/2007-IA.II (T)]**

**32.2.1** The proposal is for grant of amendment in Environment Clearance for Expansion of existing 106.617 MW and 112.45 MW gas based TPP by addition of 395 MW gas based TPPP at village Dhuvaran, Taluk kahambat, District Anand (Gujarat).

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

- i. The Environment Clearance (EC) for "Expansion of existing 106.617 MW and 112.45 MW Gas Based TPP by addition of 395 MW Gas Based TPP at Village Dhuvaran, in Khambhat Taluka in Anand District, in Gujarat" was accorded by MoEF&CC vide letter dated 13.01.2011.
- ii. The co-ordinates of the site are at Latitude 22°14'03.76'' N to to 22°14'09.95" N and Longitude 72°45'30.39" E to 72°45'30.75" E. Gas requirement will be 1.8 MMSCMD, which will be obtained from GAIL/GSPCL. There are no national park, wild life sanctuary, biosphere/ tiger /elephant reserves, heritage sites etc within 10 km of the project boundary.
- iii. At time of grant of EC water requirement will be 13.8 MLD, which will be obtained from Mahi Canal and Reservoir at Kanbha village from existing pipeline.
- iv. PP submitted proposal dated 14.10.2022 and has sought following amendments in EC dated 13.01.2011:

<b>S.No.</b>	<b>EC Condition no.</b>	<b>Stipulated in EC</b>	<b>Amendment requested</b>
1.	2.	The Ministry of Environment &	The Ministry of Environment &

		<p>Forests has examined the application. The proposal is for expansion of existing 106.617 MW and 112.45 MW Gas Based TPP by addition of 395 MW Gas Based TPPP at village Dhuvaran, in Kahambat Taluk, in Anand Distt., in Gujarat. Besides the above units other units which will be de-commissioned are 4x63.5 MW Oil Fired Plant; 2x27 MW Open Cycle Gas Turbine and 2x140 MW Open Cycle Gas Turbine. Land requirement will be 30 acres, which is available within the existing premises. The co-ordinates of the site are at Latitude 22°14'03.76" N to 22°14'09.95" N and Longitude 72°45'30.39" E to 72° 45'30.75 E. Gas Orequirement will be 1.8 MMSCMD, which will be obtained from GAIL/GSPCL. <b>Water requirement will be 13.8 MLD, which will be obtained from Mahi Canal and Reservoir at Kanbha village from existing pipeline.</b> There are no national park, wild life sanctuary, biosphere/ tiger/ elephant reserves, heritage sites etc within 10km of the project boundary. Public hearing was held on 29.09.2010. Cost of the project will be Rs. 1433.85 Crores.</p>	<p>Forests has examined the application. The proposal is for expansion of existing 106.617 MW and 112.45 MW Gas Based TPP by addition of 395 MW Gas Based TPPP at village Dhuvaran, in Kahambat Taluk, in Anand Distt., in Gujarat. Besides the above units other units which will be de-commissioned are 4x63.5 MW Oil Fired Plant; 2x27 MW Open Cycle Gas Turbine and 2x140 MW Open Cycle Gas Turbine. Land requirement will be 30 acres, which is available within the existing premises. The co-ordinates of the site are at Latitude 22°14'03.76" N to 22°14'09.95" N and Longitude 72°45'30.39" E to 72°45'30.75" E. Gas requirement will be 1.8 MMSCMD, which will be obtained from GAIL/GSPCL. <b>Water requirement will be 13.8 MLD, which will be obtained from Mahi Canal and Reservoir at Kanbha village from existing pipeline for a period whenever the water is available from this source. Alternatively, in case of non-availability of water from Mahi Canal and Reservoir at Kanbha village, the water can be obtained from the sweet / brakish water borewells in and around the plant premises. Brackish water from borewells can be used for cooling systems and sweet borewell water can be used for potable use / DM Water / Plant services.</b> There are no national park, wild / life sanctuary, biosphere / tiger / elephant reserves, heritage sites etc within 10km of the project boundary. Public hearing was held on 29.09.2010. Cost of the project will be Rs. 1433.85 Crores.</p>
2.	Specific condition (vi)	<b>No ground water shall be extracted for the project work at any stage.</b>	As the water from Mahi canal and Reservoir at Kanbha village is not available on regular basis, brackish /

			sweet ground water can be used for the project, in case of non-availability of this water.
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v. **Justification from PP:**

- a) As per the MoM with Water Resources Department (WRD), Gujarat State, it is not possible for them to supply water to GSECL, Dhuvaran Gas Based Power Station (DGBPS) from March to June every year due to closure of canal. Further, as per Water Availability Certificate from Anand Irrigation Division, the Irrigation Dept. provides only 3000 KLD (3 MLD) water to DGBPS. As per the water availability certificate from Public Health Sanitary Sub-Division, GWSSB, Tarapur, no water is provided by them to DGBPS.
- b) On account of this, DGBPS is totally dependent on bore well water during the period of March to June every year and partially dependent on bore well water for remaining quantity (apart from 3 MLD) for the remaining period of the year.
- c) The No Objection Certificate (NOC) No.: CGWA/NOC/IND/ORIG/2022/16081 from Central Ground Water Authority (CGWA) issued to DGBPS for Brackish (Saline) water borewells.
- d) The application for NOC from CGWA for fresh water borewells is in process vide Draft application code 76054 dtd.: 29.6.22 The NOC processing fee for the same is also paid by GSECL, DGBPS vide Transaction Ref. No. 2706220021359 dtd.: 27.06.22.

**32.2.3** The EAC during deliberations noted the following:

The proposal is for grant of amendment in Environment Clearance dated 13.01.2011 for Expansion of existing 106.617 MW and 112.45 MW gas based TPP by addition of 395 MW gas based TPP at village Dhuvaran, Taluk Kahambat, District Anand (Gujarat).

The PP has requested for change in water requirement for the TPP. Total water requirement for the project is 13.8 MLD, which was initially obtained from Mahi Canal and Reservoir at Kanbha village from existing pipeline, but now WRD, Govt. of Gujrat will not supply the water from March to June every year due to closure of canal. Dhuvaran Gas Based Power Station (DGBPS) is totally dependent on bore well water during the period of March to June every year and partially dependent on bore well water for remaining quantity (apart from 3 MLD) for the remaining period of the year.

During the meeting EAC noted **non-compliance of EC conditions** as PP is using borewell water continuously without obtaining any amendment/ intimation to the Ministry. Therefore, the EAC requested Ministry to act as per the law. Further, the EAC noted that drawing of brackish from the ground water will be a matter of concern as it may lead to increase the salinity the fresh water.

**32.2.4** *The EAC, after detailed deliberations on the information submitted by the project proponent, deferred the proposal seeking additional information from the project proponent:*

- i. *PP shall submit details about the ground water resources, along with comparison of ground water EC/TDS and canal water EC/TDS and quality of water.*

- ii. PP shall submit time period from which ground water is being withdrawn along with its quantity.
- iii. PP shall submit water balance (water utilization) for the month of March to June and July to February.
- iv. Details about the treatment of STP sewage and utilization. It shall be justified that why STP treated water can't be use for power generation.
- v. Yearly Ground Water recharge rate, 10 years rainfall data (within 5km radius of the plant boundary), percolation rate of rain water harvesting system, its locations, future plan to recharge the ground water and surface plan of borewell location shall be submitted.
- vi. Water auditing study shall be carried out to justify the quantity of the water has been conserved by the PP.
- vii. A study shall be carried out on impact of TPP by drawing of ground water on nearby estuaries and its mitigation measures, if any.
- viii. An EIA accredited consultant shall attend the next EAC to present all technical details.

The project was **deferred** on above points.

### **Agenda Item No. 32.3:**

#### **Directions of Hon'ble National Green Tribunal (NGT) Southern Zone, Chennai in Appeal No. 15 of 2020 between Conservation Action Trust Versus Union of India & Ors.**

**32.3.1** The Member Secretary informed the EAC that Hon'ble National Green Tribunal (Southern Bench) at Chennai while examining the issues under **Appeal no. 15 of 2020 between Conservation Action Trust Versus Union of India & Ors., challenging the Environmental Clearance (EC) granted by the Ministry of Environment, Forest & Climate Change ("MoEF&CC") to the M/s. Telangana State Power Development Corporation Limited for their 5 x 800 MW Super Critical Coal-based Yadadri Thermal Power Station ("Yadadri TPS") vide their Proceedings Letter No.J-13012/18/2015-IA.I (T) dated 29.06.2017**, passed an order on 30.09.2022 wherein it opined (at para no 39 & 40) that :

*"39. ... Though we are not happy with the manner in which the MoEF&CC, Government of India had granted the approval for grant of FC for the project and the State of Telangana had selected a reserved forest for this project, in future, we direct the MoEF&CC to desist from ordering conversion/diversion of forest land for non-forest purpose for industrial purposes especially those are having more potential for pollution being caused in the area and that is likely to have impact on forest. They should not mechanically grant the permissions even as exceptional circumstances and they must desist from converting the forest land for non-forest purposes for such commercial projects in future...*

*40. We feel that the MoEF&CC, Government of India and respective State Governments will look into these issues in future very seriously while considering the proposal for conversion of forest land for non-forest purposes especially for industries like Thermal Power Plant and other 'Red' Category industries which are likely to have impact on forest as such. However, considering the exceptional circumstances mentioned above, we are*

*not interfering with the site selection process adopted by the State Government for housing this project in this area, considering the fact that being a new State, it may require more power and project proponent had already invested some public money in making some constructions.....”*

The appeal was disposed off with the following directions:

“.....

- a. *We direct the MoEF&CC and the Government of India/State Government that in future while considering the diversion of forest land for non-forest purpose, they must be very strict in complying with the guidelines of siting and the nature of projects for which this can be granted etc. and while considering those aspects, they will have to avoid conversion of the forest land for non-forest purpose especially for projects like Thermal Power Plants, Atomic Power Plants and other Red Category industries which are declared to be industries likely to cause high level of pollution and it is likely to affect the forest cover and considering the fact that damage to forest cover can have great impact on global warming and climate change. It should also be noted that the commitment of India, being a member of the international conventions on climate change have committed to increase the green cover to minimize the impact of green house gases which are likely to have impact on global warming which will be affected by such conversions.*
- b. *The EC granted to the 4th respondent is suspended till the further appraisal is done on the basis of the following directions to be issued by the Tribunal only to the limited extent of preventing the project proponent from commissioning the project and installing the machineries but they can proceed with the construction aspects and that will be subject to the further orders to be passed by the MoEF&CC on the basis of the studies directed to be conducted.*
- c. *The MoEF&CC is directed to issue additional ToR to the project proponent for the purpose of conducting further studies on the following aspects:-*
  - a. *They will have to specify the coal linkage for conducting the study on radio activity impact and they will have to conduct the study on those aspects as directed by this Tribunal in **Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.)** by Judgment dated 27.05.2021 confirmed by the Hon'ble Apex Court in **Civil Appeal No. 1846 of 2021.***
  - b. *If the project proponent intends to switch over to 100% indigenous coal, then they will have to conduct further study on this aspect and that can be done only by filing an application before the MoEF&CC for this purpose and if any further ToR is required that also must be issued by the MoEF&CC and the public hearing will have to be conducted and all other procedure to be followed as directed by the Hon'ble Apex Court in **Key Stone Realtors Private Limited Vs. Anil V Tharthare & Ors. (Civil Appeal No. 2435 of 2019)** as mere amendment of the EC already granted will not be sufficient and this Tribunal also ignored the Office Memorandum issued by the MoEF&CC, Government of India in this regard while considering this issue in **Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.)** by Judgment dated 27.05.2021 confirmed by the Hon'ble Apex Court in **Civil Appeal No. 1846 of 2021.***

- d. While considering these aspects, the MoEF&CC is also directed to issue a direction to the project proponent to conduct additional studies (if any) to be conducted regarding the sufficiency of the ash ponds provided and design and maintenance system that has to be provided and the mitigation measures to be taken a fresh in this regard in view of the discussion and findings made by this Tribunal on these aspects as well.
- e. The project proponent is also directed to conduct the Ambient Air Quality Modelling and cumulative impact assessment as directed by this Tribunal in **Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.)** taking into account the impact of the same taking 25 Km radius as protected area is also available in that area and other industries and villages are also available in that area to assess the actual impact of the same and mitigation measures to be taken in this regard.
- f. The project proponent is also directed in co-ordination with the PCCF & Chief Wildlife Warden, State of Telangana to ascertain the exact distance between the project area and the boundary of the Amrabad Tiger Reserve and if the distance is within 10 Km of default eco-sensitive zone, then they must be directed to obtain necessary Wildlife Clearance from the NBWL as required under the Wildlife (Protection) Act, 1972 and also Office Memorandums issued by the MoEF&CC in this regard.
- g. After obtaining the Wildlife Clearance and after getting the concerned reports as directed, then the EAC is directed to reappraise the project and take independent decision regarding the recommendation or otherwise and intimate the same to the MoEF&CC and on that basis, the MoEF&CC is directed to take appropriate decision in this regard either by imposing additional conditions or other decisions to be taken on the basis of the recommendations made by the EAC and pass appropriate orders in this regard.
- h. The entire exercise must be completed by the project proponent and the EAC and the issuing authority **within a period of 9 (Nine) months.**

46. The points are answered accordingly.

**47. In the result, the appeal is allowed in part and disposed of with the following directions: -**

- I. We direct the MoEF&CC and the Government of India/State Government that in future while considering the diversion of forest land for non-forest purpose, they must be very strict in complying with the guidelines of siting and the nature of projects for which this can be granted etc. and while considering those aspects, they will have to avoid conversion of the forest land for non-forest purpose especially for projects like Thermal Power Plants, Atomic Power Plants and other Red Category industries which are declared to be industries likely to cause high level of pollution and it is likely to affect the forest cover and considering the fact that damage to forest cover can have great impact on global warming and climate change. It should also be noted that the commitment of India, being a member of the international conventions on climate change have committed to increase the green cover to minimize the impact of green house gases which are likely to have impact on global warming which will be affected by such conversions.
- II. The EC granted to the 4<sup>th</sup> respondent is suspended till the further appraisal is done on the basis of the following directions to be issued by the Tribunal only to the limited extent of preventing the project proponent from commissioning the project and installing the

*machineries but they can proceed with the construction aspects and that will be subject to the further orders to be passed by the MoEF&CC on the basis of the studies directed to be conducted.*

- III. *The MoEF&CC is directed to issue additional ToR to the project proponent for the purpose of conducting further studies on the following aspects:-*
- a. *They will have to specify the coal linkage for conducting the study on radio activity impact and they will have to conduct the study on those aspects as directed by this Tribunal in **Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.)** by Judgment dated 27.05.2021 confirmed by the Hon'ble Apex Court in **Civil Appeal No. 1846 of 2021.***
  - b. *If the project proponent intends to switch over to 100% indigenous coal, then they will have to conduct further study on this aspect and that can be done only by filing an application before the MoEF&CC for this purpose and if any further ToR is required that also must be issued by the MoEF&CC and the public hearing will have to be conducted and all other procedure to be followed as directed by the Hon'ble Apex Court in **Key Stone Realtors Private Limited Vs. Anil V Tharthare & Ors. (Civil Appeal No. 2435 of 2019)** as mere amendment of the EC already granted will not be sufficient and this Tribunal also ignored the Office Memorandum issued by the MoEF&CC, Government of India in this regard while considering this issue in Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.) by Judgment dated 27.05.2021 confirmed by the Hon'ble Apex Court in Civil Appeal No. 1846 of 2021.*
- IV. *While considering these aspects, the MoEF&CC is also directed to issue a direction to the project proponent to conduct additional studies (if any) to be conducted regarding the sufficiency of the ash ponds provided and design and maintenance system that has to be provided and the mitigation measures to be taken a fresh in this regard in view of the discussion and findings made by this Tribunal on these aspects as well.*
- V. *The project proponent is also directed to conduct the Ambient Air Quality Modelling and cumulative impact assessment as directed by this Tribunal in Appeal No.46 of 2016 (SZ) (Uma Maheshwar Dahagama Vs. Union of India & Ors.) taking into account the impact of the same taking 25 Km radius as protected area is also available in that area and other industries and villages are also available in that area to assess the actual impact of the same and mitigation measures to be taken in this regard.*
- VI. *The project proponent is also directed in co-ordination with the PCCF & Chief Wildlife Warden, State of Telangana to ascertain the exact distance between the project area and the boundary of the Amrabad Tiger Reserve and if the distance is within 10 Km of default eco-sensitive zone, then they must be directed to obtain necessary Wildlife Clearance from the NBWL as required under the Wildlife (Protection) Act, 1972 and also Office Memorandums issued by the MoEF&CC in this regard.*
- VII. *After obtaining the Wildlife Clearance and after getting the concerned reports as directed, then the EAC is directed to reappraise the project and take independent decision regarding the recommendation or otherwise and intimate the same to the MoEF&CC and on that*

*basis, the MoEF&CC is directed to take appropriate decision in this regard either by imposing additional conditions or other decisions to be taken on the basis of the recommendations made by the EAC and pass appropriate orders in this regard.*

- VIII. *The entire exercise must be completed by the project proponent and the EAC and the issuing authority within a period of 9 (Nine) months.*
- IX. *Considering the circumstances, parties are directed to bear their respective cost in the appeal.*
- X. *Till further directions are issued from the MoEF&CC, the project proponent is directed not to commission the project but they can proceed with the project of construction of infrastructure and they must also not to install the machineries, as this may also involve a revisit on the basis of the further recommendations/conditions if any to be issued by the EAC and the issuing authority viz., MoEF&CC and that will be subject to the directions of the MoEF&CC and at their risk.*
- XI. *The Registry is directed to communicate this order to the MoEF&CC and other official respondents for their information and compliance of directions....”*

A letter dated 14.10.2022 received from M/s. Telangana State Power Generation Corporation (TSGENCO) requesting the Ministry for issuing necessary directions as per the Judgement of Hon'ble NGT (SZ), Chennai, pronounced in the Appeal No. 15/2020.

In view of the above, following was decided in the Ministry that:

- i. The matter may be considered in next EAC meeting to issue additional ToR to said project for compliance of Hon'ble NGT order dated 30.09.2022.
- ii. The NGT order dated 30.09.2022 may be forwarded to FC Division for taking necessary action on the Hon'ble NGT directions w.r.t. consideration of the proposal for conversion of forest land for non-forest purposes especially for industries like Thermal Power Plant and other 'Red' Category industries which may have impact on forest.

**32.3.4** Accordingly, the matter was discussed by the EAC in its meeting held on 02/11/2022. M/s TSGENCO along with its consultant M/s B. S. Envi – Tech Pvt. Ltd., Secunderabad, (NABET Accreditation No: NABET/EIA/2023/SA 0157) presented following facts and details of the project in question:

- (i) Standard ToR was issued by MoEF&CC, GoI vide Lr. No. J-13012/18/2015-IA.I (T), Dated.02.11.2015. The sub-committee of Expert Appraisal Committee (T&C) consisting of Prof. C. R. Babu, Member (EAC), Sri. T. K. Dhar, Member (EAC), Sri. A. K. Bansal, Member (EAC), Sri B. B. Barman, Member secretary (EAC) and Director, MoEF&CC and Sri Dr. M. Ramesh, Joint Director, MoEF&CC have visited the project site on 05.12.2015 and submitted their report in the month of December, 2015. MoEF&CC, GoI has issued Additional ToR vide Lr. No. J-13012/18/2015-IA. I(T), Dated.16.02.2016.
- (ii) MoEF&CC, GoI has issued Environmental Clearance for the Project vide Lr. No. J-13012/18/2015-IA. I(T), Dated.29.06.2017.



- (iii) Telangana State Pollution Control Board (TSPCB) has issued Consent for Establishment for the above project vide Order No.10/TSPCB/CFE/RO-NLG/2017, Dt. 25.07.2017.
- (iv) Original project cost was Rs. 25,099.42 Crores (as per the EC) sanctioned vide T.G.O.O No. 210/Coal & Commercial /2015, Dated 29.08.2015 of TSGENCO and the project cost is revised to Rs. 29,965.48 Crores vide Revised Administrative Approval T.G.O.O No. 664/Coal & Commercial/2017, Dated 23.12.2017.
- (v) The project construction works were awarded to M/s. BHEL, New Delhi for an amount of Rs. 20,379.00 Crores vide LOI No. ED/TPC/SE-III/ EME-9/YTPS/D. No. 102/17, dated. 17.10.2017.
- (vi) M/s BHEL have commenced the project construction works immediately as per the above orders and as on date 61.50% of the project works were completed and balance works are in full swing.
- (vii) The status of the works are as follows:
  - a. Hydraulic test of the boilers of Units- 1, 2 & 4 already completed and it is proposed to complete the hydraulic test of the boilers of Unit – 3 & 5 by December, 2022.
  - b. Further, the erection of Turbines and Generator of Unit – 1 & 2 is in advanced stage and erection of TG in Unit – 4 & 5 is already taken up. 90% of erection of ESPs for all the five (5) Units including Air Tightness Test (ATT) completed.
  - c. The progress of all other erection works are in full swing.
  - d. It is programmed to commission the first two (2) Units by August, 2023, 3<sup>rd</sup> Unit by December, 2023 and the balance two (2) Units by March, 2024.
  - e. As on date, an amount of Rs. 18,443.50 Crores was incurred out of the total project cost of 29,965.48 Crores.
- (viii) M/s The Conservation Action Trust, Mumbai and another filed Appeal No. 15/2020 in Hon'ble NGT, Chennai challenging the Environmental clearance granted to the project by MoEF & CC, GoI.

The Hon'ble NGT, Chennai has delivered the Judgement in the appeal No. 15/2020 by allowing the appeal in part and disposed off the appeal with the following directions and the point wise submissions by Telangana State Power Generation Corporation Limited (TSGENCO) on each direction are as follows.

	The MoEF&CC and the Government of India/State Government that in future while considering the diversion of forest land for non-forest purpose, they must be very strict in complying with the guidelines of siting.....	The above are the directions given to MoEF & CC/Government of India and State Government only.
	The EC granted to the 4th respondent is suspended till	As on date 61.50% of the project works completed and they are in full swing. So far an amount of Rs. 18,443.50 Crores

	<p>the further appraisal is done on the basis of the following directions to be issued by the Tribunal only to the limited extent of preventing the project proponent from commissioning the project and installing the machineries but they can proceed with the construction aspects and that will be subject to the further orders to be passed by the MoEF&amp;CC on the basis of the studies directed to be conducted.</p>	<p>out of Rs. 29,965.48 Crores was incurred towards project cost and the progress photographs of the above project. Hydraulic test of the boilers of Units- 1, 2 &amp; 4 already completed and it is proposed to complete the hydraulic test of the boilers of Unit – 3 &amp; 5 by December, 2022.</p> <p>Further, the erection of Turbines and Generator of Unit – 1 &amp; 2 is in advanced stage and erection of TG in Unit – 4 &amp; 5 is already taken up. 90% of erection of ESPs for all the five (5) Units including Air Tightness Test (ATT) is completed. Further, it is programmed to commission the first two (2) Units by August, 2023, 3<sup>rd</sup> Unit by December, 2023 and the balance two (2) Units by March, 2024.</p> <p>However, TSGENCO will comply with the directions to be given by MoEF&amp;CC, GoI in connection with the Judgement given by Hon’ble NGT, Chennai in Appeal No. 15/2020.</p>
	<p>To study on the Radio Activity Impact after specifying the Coal linkage.</p>	<p><b>Radio Activity:</b> The study on Radio Activity Analysis in the coal sample was done through M/s. Bhabha Atomic Research Centre (BARC), Mumbai. The test certificate given by M/s. BARC vide Letter. No. HPD/LLCL/ D.43/C-02/2015/1180, dated. 18.09.2015 was incorporated in the revised EIA/EMP report.</p>
	<p>If the project proponent intends to switch over to 100% indigenous coal, then they will have to conduct further study on this aspect and that can be done only by filing an application before the MoEF&amp;CC for this purpose and if any further ToR is required that also must be issued by the MoEF&amp;CC and the public hearing will have to be conducted.....</p>	<p>(i) At the time of proposal of the above project during the year 2015, Ministry of Coal (MoC) Govt. of India has taken a decision that, fresh applications for grant of coal linkages shall be kept in abeyance, till a new policy is formulated for grant of coal linkages. Hence, TSGENCO has proposed to use blended coal i.e. 50% Indigenous coal and 50% imported coal or 100% imported coal by entering into MoU with M/s. SCCL and M/s. MSTC limited for supply of the same only after public hearing conducted in the project site. Accordingly, EIA/EMP report prepared and submitted to MoEF &amp; CC, GoI and Environmental Clearance was obtained.</p> <p>(ii) Now, as the Ministry of coal, GoI has accorded the coal linkage vide Lr. No. 23014/1/2018-CLD, dated. 15.02.2018 for supply of G-9 grade coal from SCCL mines for 14.00 MTPA, it is proposed to use 100% indigenous coal. Also coal supply agreement is entered with M/s. SCCL for supply of above coal for the above project vide Supplementary Instrument – II of Fuel</p>

		<p>supply Agreement dated. 01.04.2016. M/s. SCCL vide their letter No. HYD/MKT/T/005/383, dated. 02.06.2017 has furnished an undertaking that they will supply the coal with not more than 30% ash content.</p> <p>(iii) As per the Office Memorandum F. No. J-13012/8/2009-IA.II (T), dated. 11.11.2020 issued by MoEF &amp; CC, GoI, all the Thermal Power plants having EC can change the coal source (from imported to domestic, domestic to domestic and domestic to imported).</p> <p>(iv) In view of the above, TSGENCO has not approached the MoEF&amp;CC, GoI for change of coal source from blended coal (i.e., 50% Indigenous coal and 50% imported coal) or 100% imported coal to 100% indigenous coal.</p>
	<p>Sufficiency of Ash ponds and its design and maintenance system:</p>	<p><b>(i) Sufficiency and design of Ash pond proposed:</b></p> <p>a) Initially while submission of Form-1 to MoEF&amp;CC, GoI, TSGENCO has proposed Ac. 700.00 of land out of Ac. 2800.00 proposed for entire project for construction of ash pond. Subsequently, as per the condition No. 3 (xii) of the Additional Terms of Reference (ToR) issued vide Lr. No. J-13012/18/2015-IA.I (T), Dated.16.02.2016, the extent of land for the ash pond was reduced from Ac. 700.00 to Ac. 400.00 and EIA/EMP report prepared and submitted to EAC. Accordingly, the Environmental clearance was granted.</p> <p>b) The Ash pond for the above project was designed by engaging Prof. V.S. Raju Consultants, Hyderabad (V.S. Raju, Retired professor, IIT Delhi, expert in Geotechnical Engineering). The proposed ash pond in an extent of Ac. 400 is for depositing the un-utilised ash from the plant and is sufficient as there are 8 cement industries within 50 km radius and 22 cement industries within 200 km radius of the project which have given undertakings for lifting the fly ash, by which 100% ash utilisation can be met within four (4) years as directed in the Environmental Clearance granted by MoEF &amp; CC, GoI.</p> <p><b>(ii) Maintenance of Ash pond:</b></p>

		<p>a) As directed by the MoEF &amp; CC, GoI in the EC granted, HDPE liner of 1000 micron is being provided inside the ash pond area over 100 mm thick clay layer to prevent ground pollution.</p> <p>b) It is proposed to provide ash water recovery system which consists of treatment plant and recycling arrangement adjacent to the ash pond for collecting the decanted water from ash pond and treat the same for re-using in ashing system so as to achieve Zero discharge from entire plant.</p> <p>c) The ash pond is provided with decantation well along with barrel which is connected to collecting sump of the ash water recovery system to drain off decanted water from the ash pond and treat the same in the ash water recovery system.</p> <p>d) For monitoring the ground water quality, bore wells/Peizometers will be provided on four sides of the ash pond and water samples will be collected regularly for testing its quality.</p> <p>I) Conducting Ambient Air Quality (AAQ) modeling and cumulative impact assessment study in 25 km radius of the project:</p> <p>The AAQ and cumulative impact assessment studies were conducted within 15 km radius of the above project and the same was incorporated in the Chapter – 4 of the revised EIA/EMP report. The results of Ambient Air Quality study are within NAAQ standards and the recorded Air quality parameters such as PM10: 31.90 – 66.40 ug/m<sup>3</sup>, PM2.5 : 11.60 – 31.60 ug/m<sup>3</sup>, SO2 : 8.30 – 24.60 ug/m<sup>3</sup>, NOx : 10.30 -28.10 ug/m<sup>3</sup> and Hg &lt; 0.10 ug/m<sup>3</sup>.</p> <p><b>However, as directed by the Hon’ble NGT, Chennai in the above judgement, if felt necessary by MoEF &amp; CC, GoI, TSGENCO will conduct above studies within 25 km radius of the project during post monsoon season i.e. from December - 2022 to February - 2023.</b></p> <p><b>II) Distance between boundary of YTPS project to Amrabad Tiger Reserve.</b></p> <p>The PCCF (WL) and Chief Wildlife Warden, Telangana vide his Letter No. Rc. No. 3401/2016/WL-1, dated. 05.05.2016 has already confirmed that the Amrabad Tiger Reserve does not fall within 10 km of the boundary of the</p>
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	<p>Yadadri Thermal Power Station at Veerlapalem (V), Dameracherla (M), Nalgonda Dist and no wild animal migratory path/wild animal corridor is located within 10 km of the boundary of above plant duly enclosing the authenticated map showing the distance between YTPS boundary and Amrabad Tiger Reserve boundary issued by the Divisional Forest Officer, Wildlife Management Division, Nagarjunasagar. As per the above map, the distance between YTPS boundary and Amrabad Tiger Reserve boundary is 14.03 km. The same was incorporated in the revised EIA/EMP report.</p>
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**32.3.2** The EAC during deliberations noted that the Hon'ble Tribunal has raised concerns over permission for diversion of forest land into non-forestry activities and in particular diversion of forest land for polluting industries and suggested the MoEF&CC for adopting stringent measures for allowing such activities in forest land. The Hon'ble Tribunal's directions are also for re-examining the sufficiency of existing ash pond and design and maintenance system to address the environmental concerns over switching over the plant from imported coal to indigenous coal as fuel source. It has also been directed that study on the Radio Activity Impact after specifying the Coal linkage need to be done and after obtaining the Wildlife Clearance and after getting the concerned reports as directed, then the EAC is directed to reappraise the project and take independent decision regarding the recommendation or otherwise.

The EAC after detailed deliberations was of the view that a review of fly Ash management and its radioactive analysis, impact of project on nearby protected area and its wildlife, human population likely to be affected will be required due to change in the fuel source in the light of the decision of the Hon'ble Tribunal. A detailed scientific and technical study is necessary to understand the impact of the changed scenario on the environmental parameters for ensuring the goal of sustainable development.

The EAC while examining the need of repeat public hearing in the case of change in fuel quality and quantity (Imported coal to Indigenous coal) noted that:

1. The MoEF&CC vide Office Memorandum No. J-11013/41/2006-IA.II (I) dated 01.11.2010 decided that all such proposals relating to thermal power, steel manufacture and sponge iron which are pending in the MoEF or with State Level Environment Impact Assessment Authorities (SEIAAs)/State Expert Appraisal Committees (SEACs) concerned for consideration of environmental clearance shall be deferred and delisted till the status of environment and forestry clearance of the coal supply source for Indian coal or the MoU for imported coal as stated in para 3 of the Office Memorandum has been established and furnished.
2. The MoEF&CC vide Office Memorandum No. J-11013/41/2006-IA.II (I) dated 19.01.2011 regarding consideration of projects of thermal power, steel sector etc. for environmental clearance with sourcing of coal linkage from dedicated coal block/Coal India Ltd., it was clarified that firmed coal linkage is required to be ensured at the stage

- of consideration of grant of Environmental Clearance and not at the stage of TOR.
3. The MoEF&CC Office Memorandum No. J-13012/08/2009-IA.II (T) dated 11.11.2020 inter-alia states that “....5. *The process of dealing with change in coal source is to apply at PARIVESH, subsequent appraisal by the Expert Appraisal Committee (EAC), processing of EAC recommendations and granting the amendment to the EC. The whole process would approximately take about 2-3 months.* 6. *The various environmental impacts due to change in coal source viz. increased ash quantity and its management, increased emissions, and impacts of transportation have already been addressed and adequate mitigation measures have been stipulated by the Ministry vide notifications dated 7.12.2015, 28.6.2018 and 21.5.2020.* 7. *In order to simplify the procedure for change in coal source and encourage Thermal Power Plants to use domestic coal, the Ministry has decided the following procedure:*

*All thermal power plants (including Captive Power Plants) having environmental clearance can change the coal source (from imported to domestic, domestic to domestic, and domestic to imported) including lignite, directly through e auction/short term linkage/long term linkage/other linkage option of Ministry of Coal or any organization recognized for allotting coal linkage, **without seeking the amendment in Environmental Clearance**, subject to the following conditions and thereby making earlier conditions in the EC regarding coal source redundant:*

- a) Details regarding change in coal source (location of the source, proposed quantity, distance from the power plant and mode of transportation), quality (Ash, Sulphur, moisture content and Calorific value) shall be informed to the Ministry and its regional Office. The quantity of coal transported from each source along with the mode of transportation shall be submitted as part of EC compliance report.*
- b) Ash content in the coal and coal transportation is governed by the Ministry's Notification vide S.O. 1561 (E) dated 21.05.2020. As far as possible, coal transportation shall be done by rail/conveyor or other eco-friendly modes. However, road transportation is allowed with tarpaulin covered trucks till the railway/conveyor belt infrastructure is made available. A progress (physical and financial) of rail connectivity from nearest railway siding or conveyor connectivity to the power plant shall be submitted in the EC compliance report.*
- c) Additional ash pond is not allowed due to increase in ash content in the raw coal as against the ash pond permitted in the Environmental Clearance. The 100% fly ash utilization is to be achieved within 4 years in line with fly ash notifications dated 14.09.1999, 27.08.2003, 3.11.2009 & 25.1.2016 and amended time to time or extant regulations on fly ash utilization.*
- d) In case of exceptional circumstances, project proponents may approach the Ministry for seeking permission to use an emergency ash pond with cogent reasons, if any.*
- e) The details regarding monthly generation, utilization, and disposal of fly ash (including bottom ash) shall be submitted to the Ministry and its Regional Office....”*

As per the report of public hearing conducted on 31.05.2016 for the present project the main public concerns were about the land compensation, employment to local people, engagement of local laborers for construction, establishment of corporate hospital with health cards, setting up of ITI, employment to complete land losers, supply of water and electricity, contamination of Krishna river water, free education, use of latest and most efficient technology for control of pollution and fly ash utilization etc.

Change in source of fuel may not affect the public issues/concerns which have already been considered during appraisal of project for grant of EC, so this may not provide the new information for the estimation of social concerns; however, during reappraisal of the aspects by the EAC, the EAC desired in this specific case a Public Consultation as per the EIA Notification, 2006 be conducted to address the further issues, if any. The PP needs to conduct studies w.r.t. incremental increase in the pollution load and radioactivity studies in the indigenous coal handling as pointed out by the Hon'ble Tribunal in view of the change in the source of coal. As per the data submitted by the PP, there is no change in land area, plant location, influx of population from outer areas etc. Under such circumstances, in place of public hearing the public consultation is recommended for addressing the additional issues, if any. However, MoEF&CC may examine this issue from administrative point of view in consideration with related various Office Memorandums of the MoEF&CC and take appropriate decision in the matter.

The EAC after due deliberations recommended for submitting detailed study reports/information/statutory clearance on following additional Terms of Reference points after applying on PARIVESH along with on the aspects already directed by the Hon'ble Tribunal for further consideration by the EAC:

- i. Incremental pollution load and radioactivity studies in the indigenous coal handling in view of the change in the source of coal.
- ii. Cumulative impact assessment study covering 25 KM radius area with one season data and appropriate air modelling.
- iii. PP shall submit the letter from PCCF regarding the exact distance between the site and the tiger reserve.
- iv. Ash utilization plan for next 5 years including emergency ash utilization, disposal, and transportation.
- v. Location map of industries willing to take Ash from the Thermal Power plant.
- vi. Certification of change in design parameter of Ash pond by the reputed expert Government Institute in view of change in source of coal to ascertain the exact impact, if any.
- vii. Detailed plan for 3 rows plantation all along plant boundary.
- viii. A study on quantity and quality of ash to be generated, pollution load on environment and ecology of the surrounding area, assessment of anticipated impacts and its mitigation measures, transportation of coal and ash handling system for using 100% Indigenous coal.

**The meeting ended with vote of thanks to the Chair.**

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**ATTENDANCE**

<b>S. No</b>	<b>Name</b>	<b>Role</b>	<b>Attendance</b>
1.	Shri Gururaj P. Kundargi	Chairman	P
2.	Dr. N.P Shukla	Member	P
3.	Shri Suramya Vora	Member	P
4.	Dr Santosh Kumar	Member	P
5.	Dr. Umesh Jagannathrao Kahalekar	Member	P
6.	Shri K.B. Biswas	Member	P
7.	Dr. Nandini. N	Member	P
8.	Shri M.P. Singh	Member (Representative of CEA)	P
9.	Dr. Nazimuddin	Member - Representative of CPCB	P
10.	Shri Yogendra Pal Singh	Member Secretary	P



## APPROVAL OF THE CHAIRMAN

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**From:** [gpkundargi@gmail.com](mailto:gpkundargi@gmail.com)

**To:** "Yogendra Pal Singh" <[yogendra78@nic.in](mailto:yogendra78@nic.in)>

**Sent:** Tuesday, November 22, 2022 3:42:17 PM

**Subject:** Re: DRAFT MINUTES OF 32ND MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL POWER PROJECTS) HELD ON 02ND NOVEMBER, 2022 -REG.

Dear Dr Yogendra ji

The corrected & revised draft minutes after considering members corrections is approved. You may also take in to the consideration, the corrections suggested by Dr Nazmuddin ji at 32.2.4.

For needful action pl.

Thank you

G P Kundargi

On Mon, 21 Nov, 2022, 7:03 pm Yogendra Pal Singh, <[yogendra78@nic.in](mailto:yogendra78@nic.in)> wrote:

Dear Sir,

The correction/ updation in the 32nd Minutes of Meeting held on 02.11.2022 as suggested by you telephonically, have been incorporated.

The updated draft MOM is attached herewith for approval, please.