



## Forum for Good Governance

Regd. No. 653/2009

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L. No. FGG/GOV/REP/44/2020

To  
H.E. the Governor  
Telangana  
Hyderabad

Respected Madam,

**Sub :** Manguru Thermal Power Plant (Bhadradi Power Plant) – Serious irregularities in grounding the plant – Request for publication of a white paper – Reg.

-: \$ :-

To improve the availability of power to newly formed Telangana state, Hon'ble Chief Minister took a decision in the year 2014 to establish new thermal power plants in the state.

Construction of Manuguru Thermal Power Plant (Bhadradi Power Plant) with a capacity of 1080 M.W. is a step in that direction. Forum for Good Governance appreciates the vision of Hon'ble Chief Minister to transform the power starved state into power surplus state in 5 years period.

Unfortunately at the implementation stage series of wrong steps taken by T.S. Genco made Bhadradi a most Controversial, Inefficient and Pollutant plant. In the coming years it will become a white elephant for the people of Telangana.

**The details :** T.S. Genco entered into an agreement with BHEL in the year 2014 for construction of 4 x 270 M.W. = 1080 M.W. thermal plant at Manuguru, Khammam district. The BHEL has agreed to complete the project within two years with an estimated cost of Rs.7,290 crores as an E.P.C. contractor. Due to various reasons the work progressed very slowly. With the slippage of target date the cost has increased to about Rs.9,000 crores.

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BHEL is a premier Public Sector Undertaking which manufactures equipment like Turbines, Boilers, Generators etc. for construction of Thermal Power Plants. It is expected that after entering into agreement with TS-GENCO, BHEL will adopt state of the art technology and construct the Bhadradri plant with SUPER CRITICAL technology. But what happened in the field is a big mystery.

In the year 2008 BHEL entered into an agreement for construction of power plant based on SUB-CRITICAL technology with India Bulls (a private company). For this purpose BHEL started manufacturing required equipment. On 13<sup>th</sup> November, 2009 Ministry of Power, Govt. of India issued an Office Memorandum mandating use of SUPER CRITICAL technology instead of SUB CRITICAL technology for all the Thermal Power plants in the country. Due to various reasons the India Bulls company backed out from agreement with BHEL, but by that time the equipment was already manufactured and stored in the go-downs of BHEL. When the T.S. GENCO entered into agreement for construction of Bhadradri plant, BHEL proposed construction of the plant with SUB CRITICAL technology as the required equipment is readily available with them. Somehow the TS-GENCO walked into the trap of BHEL and agreed for SUB CRITICAL technology using the machinery manufactured 6 years back for India Bulls. Overnight about Rs.1056 crores were paid to BHEL toward cost of equipment. Immediately the old and rusting machinery from BHEL godowns was dumped on T.S. GENCO.

The National Electricity Plan (2012) has advised the Union Environment Ministry to refuse clearance to projects based on SUB CRITICAL technology after 2012 and no coal linkages to be made to SUB CRITICAL plants from 2017 onwards. It also suggested that the ministry need to put forward an action plan to ensure that upcoming plants utilize only SUPER CRITICAL / ULTRA SUPER CRITICAL technology.

For grant of T.O.R. for Bhadradri project there were a series of meetings held by TS GENCO officials with Government of India. The Expert Appraisal Committee (EAC) on Environmental Impact Assessment has advised the TS-GENCO to shift the technology adapted from SUB-CRITICAL to SUPER CRITICAL and accordingly revise the configuration of the proposed unit. C.M.D., TS-GENCO has explained the specific circumstances in which SUB CRITICAL technology is proposed since the equipment is readily available with BHEL who have agreed to complete & commission the project within two years. Government of India was not satisfied with the argument. Again in 36<sup>th</sup> EAC meeting of the M.O.E.F. & C.C., Government of India stipulated the condition that T.S. GENCO shall explore the feasibility of installing SUPER CRITICAL technology.

Further, when Public Hearing was conducted for the project, people welcomed the project but raised strong objections on SUB-CRITICAL technology which is an obsolete technology causing heavy pollution. In spite of repeated objections raised by the Government of India on adopting SUB-CRITICAL technology, the T.S.GENCO pursued the project with old rusted equipment manufactured for SUB CRITICAL technology by BHEL.

Cases were filed in National Green Tribunal (NGT) on environmental issues on the Bhadradi Thermal Power Plant (B.T.P.P.). In spite of NGT giving stay not to continue the work till their field inspection GENCO went ahead with civil works. NGT ordered prosecution of officials responsible for commencing the construction work without obtaining Environmental Clearance and violating Environmental (Protection) Act 1986. Accordingly Ministry of Environment has filed a criminal complaint before judicial magistrate Manuguru. The case is registered as C.C. No. 43/2017 and is pending.

**Problems with Power plants using SUB-CRITICAL technology:**

1. Auxiliary Power Consumption (A.P.C.): Power consumed by the plant's own equipment in SUB CRITICAL technology is around 12% as against 5% on plants with SUPER CRITICAL technology.
2. Maintenance cost : For small plants with SUB-CRITICAL technology the maintenance cost is about 24 rupees per M.W. of electricity produced as against 14 rupees with SUPER CRITICAL technology.
3. More coal requirement : In SUB CRITICAL technology more coal is required to produce per unit of power
4. More pollution problems : Due to burning of more coal to produce heat, plants with SUB CRITICAL technology require more coal burning leading to more pollution.
5. More land, water and oil are required for smaller units using SUB CRITICAL technology.
6. For transmission of power produced by Bhadradi, there is no alternate line. In case of problem in transmission the unit has to be shut down.

To cut the cost and reduce pollution world over the companies have shifted to SUPER CRITICAL technology. In the year 2014, N.T.P.C. has decided to establish power units with SUB CRITICAL technology at Ramagundam. Later seeing the trend, it shifted to SUPER CRITICAL technology. The N.T.P.C. is now establishing two units of 800 M.W. each with SUPER CRITICAL technology at Ramagundam

Coal for the Bhadradi plant comes from P.K. mines and Mallepally mines which are located at a distance 15.6 KM and 14.1 KM respectively. In sanctioned D.P.R. of the project it was proposed to transport coal (about) 13,000 tons per day through rail, but T.S. GENCO has not laid railway line and requested MoEF&CC to permit transport of daily requirement of 13000 tons of coal by road which means about 655 trucks will run per day (to and from will be 1310 trucks or one truck per every minute). There are 8 villages on the way covering a population of about 8,000 people mostly tribals. The coal dust will totally damage their habitations and fields. Their health will be completely spoiled and there will be high risk of road accidents. Government of India gave temporary permission to transport coal by road stipulating certain conditions which are not being implemented fully and coal transport started.

In July 2017 we requested Prl. Secretary, Energy to publish a white paper as the project was totally derailed. The Prl. Secretary, Energy informed us that if a white paper is published it will impede the progress of the project.

Keeping all these factors in view, Forum for Good Governance requests H.E. the Governor to kindly order for publication of a white paper on Bhadradi Thermal Power Plant. People of Telangana have a right to know what conspired between T.S. GENCO and BHEL in going for out dated technology using old and rusting material for construction of Bhadradi Thermal Power Plant inspite repeated warnings by Govt. of India. We have a reason to believe that before the plant produces its first M.W. of power, Government of India may take a decision to close down all power plants working on SUB-CRITICAL technology in the country.

Yours Sincerely



**M. Padmanabha Reddy**  
Secretary  
Forum for Good Governance

- Encl :**
1. Dy. Secretary, Energy department letter No. 1222/PR(A1)/2016-3
  2. Justifying note of Secretary, Energy department for establishing Sub Critical Power Plant.
  3. Secretary, Energy department letter to Secretary, Power, Government of India letter No.482/Budget/2015 -2
  4. Permission letter for Coal transport by Road