

To
The Chairman cum Managing Director,
TANGEDCO,
144, Anna Salai,
Chennai – 02.

Lr. No. TNEBEA / GS / D. / 2020 , Dt. 10.09.2020

Sir,

Sub:TNEBEA – TANGEDCO thermal Power Projects - Award of contract to private consultants for execution of Design and Engineering activity in ongoing Thermal Power Projects – Engaging deserving TANGEDCO’s engineers – Suggestion by TNEBEA to annul the private PMC contract – Reg.

Vanakkam,

We are proud to represent on behalf of TNEBEA, which comprises of Engineers with ultimate knowledge & technical exposure in multidisciplinary fields in respect of handling the thermal projects.

It is learnt that contract to private consultants for execution of Design and Engineering activity have been awarded recently to M/s. Tata Consulting Engineers Limited for Uppur 2X800MW Supercritical Project and to M/s.Design Private Limited for ETPS Expansion Supercritical Project (1X660MW) at an approximate cost of **Rs.45.0 Crores** and **Rs.33.0 Crores** respectively without any detailed discussion and recommendations from technical experts of TANGEDCO’s Engineers.

In this regard, Tamil Nadu Electricity Board Engineers’ Association (TNEBEA) are duty bound to putforth the following technical & commercial facts to the respected CMD to protect the welfare of organisation.

1. ENGINEERS OF TANGEDCO –“THE BACKBONE OF TNEB”:

- Starting with the memorable achievements in construction of challenging hydro stations with high technical complications by our former Chairman (Engineer) Thiru.Appadurai, the TNEB Engineers Association wants to highlight that the engineers of TNEB are highly capable of working with the tough & coarse battle fields.

- We are very proud to state that, the TANGEDCOs' existing successful base load Thermal Power Plants, which are contributing now a major role in Tamil Nadu Grid, were successfully commissioned by our own TNEB Engineers only.
- TNEBEA is once again proud to record that, the "Power Engineers Handbook" prepared by the veterans of TANGEDCO Engineers under TNEBEA Association platform, is being utilized worldwide by many of leading technical engineering community.
- As TNEB is one of leading pioneer in the field of Power sector in India and it is often proven in the history from the past during critical power crisis in the country, it is need of the day to proceed further with the involvement of TANGEDCO expertise engineers for the upcoming thermal projects without rely on any private agencies.
- As of now, we want to point that the recently commissioned NTCEL power generating station at Atthipattu / Chennai is not able to go for its full load due to technical complications. But the TANGEDCO Engineers proved themselves and they achieved the full load generation in the MTPS I generating station, which runs continuously till its due for next annual overhaul, which proved that effectiveness of TANGEDCO Engineers. Also the recently commissioned MTPSII power generating station is performing better than the power stations of other state.

2. DEMERITS IN AWARDING THE ENTIRE UPCOMING PROJECT WORK TO PRIVATE PMC:

- As, there is no explicit evident in the successful performance of Private PMC, the strategy of adopting the Design and Engineering, commissioning Project works to the profit oriented private agency(PMC) will have detrimental impact on organisational growth graphical trends.
- The Boiler Turbine Generator (BTG) & Balance of Plant (BOP) package of a project put together has more than 40 work fronts such as Boiler Structure, Pressures parts, Mills, Fans, ESP, Turbine,

ECHS, ICHS, CWPH etc., and each front has Civil, Mechanical & Electrical related works.

- The EPC contractor is not directly carrying out the entire project works by themselves. They are sub-letting the different work fronts to other smaller construction companies to complete the work on various aspects. It is clear from the fact of making profits, organisation like M/s.BHEL itself is opting for subletting the works.
- For example, M/s. BHEL, one of our major EPC contractor for Ennore SEZ (2 x 660 MW), NCTPS III (1 x 800 MW), Uppur (2 x 800 MW) & Udangudi (2 x 660 MW) is subletting Boiler, ESP & TG Civil & Mechanical works to companies such as M/s. Bridge & Roof, M/s. Texcel, M/s. Powermech, M/s. Simplex, etc.
- It is clear that EPC contractor himself is doing only Monitoring works of their sub-vendors, i.e. without appointing any intermediate monitoring agency, in order to avoid Techno Commercial complications.
- In earlier projects, TANGEDCO has utilised more than 100 Engineers for Quality Inspection works of Erection at each stage and also commissioning works of the unit. Such projects are the backbone of TANGEDCO's power generation. But, in the name of private PMC, on our board side only few engineers will be utilised, which will force the engineers not to concentrate on engineering activities, instead will force the engineers to run with the completion of billing to the private agencies and it will be cumbersome for them. since no. of work fronts are high and quantum of day to day erection activities, commissioning works are huge.
- The private PMC agency's Accountability, Responsibility, possessiveness towards welfare of TANGEDCO will be very less, on par with the presence of our TANGEDCO Engineers.
- The EPC contractor could easily shrug off his responsibility, in the event of delay or wrong execution of project works citing wrong guidance by the private PMC committee. Or chance of handshaking

to compromise with the quality of work or material are very high. This will have severe impact on lifetime of power plant and will impact on PLF of stations.

- Also, in case of non-satisfactory performance of the Project Monitoring Committee, the damage or loss to TANGEDCO will be very high, when compared with the proposed recovery amount from them. Also it is not fair to check their stability or performance at the cost of TANGEDCO.
- There are chances for the private PMC agency to be lacklustre in their works, since their role is temporary & also they may lean towards EPC contractor at any time.
- We want to bring to your notice that the Uppur Project was under PMC for more than a year and still shows poor in the progress.

3. **MERITS OF TANGEDCO ENGINEERS & NEED OF EXPERT COMMITTEE:**

- TNEBEA is proud to record that TANGEDCO Engineers will work with utmost dedication, possessiveness and will carry out the inspections, which have direct impact on the life period of plant, without compromising any quality at any cost and take full responsibility towards all works since their bond with TANGEDCO will ever last till their life time (as a pensioner even after retirement also).
- As in Annexure I, the utilisation of TANGEDCO Engineers in projects are mentioned, which reveals that only 107 engineers are utilised for a period of 3 years, whereas while engaging a private PMC, only about 30 nos. The working efficiency and ability of 107 TANGEDCO Engineers when working as group will be very high on par with the efficiency of **few junior Engineers appointed by this profit oriented so called private PMC.**
- After commissioning of the project, mostly many Engineers will continue to look after in the Operation & Maintenance works of

thermal stations, which will be an added advantage to run the unit continuously without any hindrance at full load.

- There is no second opinion about excellent performance of the Thermal Power Stations commissioned by the TANGEDCO Engineers which are contributing crucial role in the southern grid at present without compromising in quality in the view of design and Engineering aspect.
- TNEB has given vast exposure to the many of Engineers in the field of Projects (Hydro, Thermal & Transmission network projects), Operation & Maintenance (O&M) of Generation, Distribution and Transmission System, it is need of the hour to point out in this juncture that there is lagging in constituting the expert committee for TANGEDCO in the respective fields as available in the reputed NTPC and NLCIL organizations.
- For the upcoming projects, as in state of TELANGANA, if regular review meetings were conducted at the level of CMD/JMD with the directors of BHEL, we can sort out major issues during many occasions, which will reduce the abnormal delays in progress of project and also will aid in reduction of IDC cost and fasten the progress of projects. Hence, the root cause shall be identified and the Engineers shall be effectively utilised.
- **The strength of available Engineers in TANGEDCO is the strength of organisation.**
- Instead of mortgaging the entire Techno-Commercial activities to **private agency, they can be utilised as consultants with minimum cost (around Rs.1 Crore) to assist** the TANGEDCO Engineers, as followed before in ETPS Expansion project.
- As every second has to be invested towards the growth of organization, it is not late for TNEB Engineers Association to suggest to form an expert committee in the respective fields by appointing the available veteran Engineers in TANGEDCO, if management pleased, considering the welfare of this service rendering organisation, TNEBEA is ready to extent its fullest

cooperation in pointing out such Stalwart Engineers to involve in the Expert Committee activities, to suggest various aspects to respected CMD .

- **The involvement of TANGEDCO expert committee will sure aid in maintaining the uniformity & quality of design, engineering aspects among the upcoming projects and will ensure the life period of station.**
- Entrusting the private PMC agency and Plucking the strength of Engineers will sure weaken the organisation, which is intolerable and will create irreparable loss to this organisation.
- It is to record that, if Private PMC agency is appointed, the beneficial harvesting opportunities for TANGEDCO from a total of (49 Engineers per project) in the cadre of AEEs (14 Nos.) and AEs (35 Nos.) will be affected. Also application of creative thoughts by fresh B.E. graduates (54 per project) will get affected. Plucking of each and every Engineer will sure slash the upliftment of organisation.
- A fresh graduate engineer recruited by board and deputed for projects, they will serve for many years with responsibility and will work for upliftment of organisation. whereas a graduate engineer engaged for projects by private contract agency , will gain or learn experience at the cost our investments and will jump into other company.

4. COST SAVINGS:

- It is prime evident from the past history of TNEB, to state that the work entrusted to the private PMC agency can be easily carried out in time by our organisation's own Engineers with an advantage of cost savings at an approximate value of **Rs.32.0 Crore** based on the existing sanction of post as enclosed in Annexure I.
- Even if the maximum pay band is considered, the total savings per project is $(45 - 37.24) = 7.76$ Crore.
- Also, it is need of the hour to emphasis the loss incurred in every outage & tripping of power generating stations. If a generation get

affected in a 660 MW thermal power plant for a 24 hours, the loss involved will be around Rs.12 Crores. Similarly, about Rs.36 Crore loss is involved with tripping of 800 MW plant.

- It has proven that TTPS and MTPS plants were installed and **commissioned by our own Engineers in the year 1978 and 1989** respectively. Still these two plants are **running at 105% load** , several times the above stations were honoured with Gold / Silver medals. This reveals the reality in engaging our own engineers. The performance of the station shows the performance & dedication of our engineers.
- In the other side, NCTPS plants were commissioned in 1995 & 1996 by the private consultant, which is facing perennial break downs on its third year itself.
- The detailed cost savings and other analysis will be submitted to the CMD in the due course.
- **The cost implication in engaging our TANGEDCO engineers for a period of three years, for a typical 600MW as enclosed in annexure is around Rs.12 crores. which is nothing before the cost involved on outage of 600MW unit for a day.**

Hence the respected CMD is requested to consider the suggestion putforth by TNEBEA which is the need of the hour to continue the upcoming project works by constituting a Technical Experts Committee under the head of CMD of TANGEDCO without fully relying on any private agencies. This may surely make milestone in the history of TANGEDCO.

With warm regards,

Yours sincerely,

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for General Secretary

ANNEXURE I

**Cost savings if Design and Engineering works are carried out by TANGEDCO's Engineer
(Min. pay has taken for arriving total emoluments to the Engineers)**

Category (for Civil, Mechanical & Electrical circles)	Req. Strength of Engineers (approx.)			Pay Band (Minimum Amount considered for calculation in the view of new post santion)	Expenditure / Annum / Post	TANGEDCO Engineers				Private PMC Agency
	Year I	Year II	Year III			Expenditure (Rupees in Crore) (approx.)				Awarded value
						Year I	Year II	Year III	Total for 3 years	
CE	0	1	1	1,27,400	15,28,800	0	15,28,800	15,28,800	30,57,600	Rupees 45 Crore (approx.) (for the strength of 30 Nos.)
SE	1	3	3	1,25,200	15,02,400	15,02,400	45,07,200	45,07,200	1,05,16,800	
EE	3	10	14	60,600	7,27,200	21,81,600	72,72,000	1,01,80,800	1,96,34,400	
AEE	6	24	35	58,200	6,98,400	41,90,400	1,67,61,600	2,44,44,000	4,53,96,000	
AE	6	34	54	39,800	4,77,600	28,65,600	1,62,38,400	2,57,90,400	4,48,94,400	
TOTAL	16	72	107			1,07,40,000	4,63,08,000	6,64,51,200	12,39,92,000	
						1.07cr	4.63cr	6.64cr	12.34cr	45 Cr

ANNEXURE II

**Cost savings if Design and Engineering works are carried out by TANGEDCO's Engineer
(Max. ceiling limit pay has taken for arriving total emoluments to the Engineers)**

Category (for civil, mechanical & electrical circles)	Req. Strength of Engineers (appr.)			Pay Band (Maximum Amount taken for calculation)	Expenditure / Annum / Post	TANGEDCO Engineers				Private PMC Agency
						Expenditure (Rupees in crores) (appr.)				
	Year I	Year II	Year III			Year I	Year II	Year III	Total for 3 years	Rupees 45 crores (approx.) (for the strength of 30 Nos)
CE	0	1	1	223300	2679600	0	2679600	2679600	5359200	
SE	1	3	3	219800	2637600	2637600	7912800	7912800	18463200	
EE	3	10	14	191800	2301600	6904800	23016000	32222400	62143200	
AEE	6	24	35	184300	2211600	13269600	53078400	77406000	143754000	
AE	6	34	54	126500	1518000	9108000	51612000	81972000	142692000	
TOTAL	16	72	107			31920000	138298800	202192800	372411600	
						3.19 Cr	13.82 Cr	20.21 Cr	37.24 Cr	45 Cr