

TAMIL NADU ELECTRICITY REGULATORY COMMISSION
(Constituted under section 82 (1) of the Electricity Act, 2003)
(Central Act 36 of 2003)

PRESENT:-

Thiru S. Akshayakumar Chairman

and

Thiru.G.Rajagopal Member

M.P.No.20 of 2014

Tamil Nadu Generation and Distribution Corporation Ltd.
Represented by Chief Engineer / Mechanical Thermal Stations
144, Anna Salai
Chennai – 600 002.

... Petitioner

Vs.

Nil

.... Respondent

Dates of hearing : 09-04-2014, 23-06-2014 and 19-01-2015

Date of order : 13-11-2015

The M.P.No.20 of 2014 filed by TANGEDCO came up for final hearing on 19-01-2015. The Commission upon perusing the above petition and the connected records and after hearing submissions of the Petitioner passes the following order:-

ORDER

1 Prayer of the Petitioner:-

The Prayer of the Petitioner in M.P. No.20 of 2014 is for:

(a) Ratification and approval of the Commission to keep the Units I, II, III and IV of Ennore TPS in service till decommissioning of the Station to meet the grid demand to the extent feasible by beneficially utilizing the existing infrastructure and the

available manpower of ETPS eventhough the variable cost (Ex-Bus) is more than Rs.3.50 per KWHr ; and

(b). Approval to consider the installed capacity of Ennore TPS as 340 MW instead of 450 MW (i.e.) excluding the 110 MW Unit V for calculation of PLF and other performance parameters of ETPS since the Board of TANGEDCO has approved to keep the 110 MW Unit V under shutdown condition till decommissioning of the Station.

2. Contentions of the Petitioner:-

3.1. The Commission in its order in T.P. No.1 dated 20-06-2013 under “*Summary of Directives*” have directed TANGEDCO to take prior approval for power procurement with variable cost more than Rs.3.50 from unapproved sources and sources not getting dispatched under MOD, before purchasing energy.

3.2. The variable cost (Ex-Bus) approved by the Commission for ETPS for the second control period (i.e.) 2013-14 to 2015-16 is 386.93 paise per KwHr. The energy charges approved by the Commission for ETPS for the year 2013-14 is Rs.3.87 per unit.

3.3. The actual generation of ETPS during the current FY 2013-14 upto November 2013, Generation forecast upto March 2014 and the Actual Variable Cost (Ex-Bus) of the station during the current FY 2013-14 upto November 2013 are as below:-

April 2013	May 2013	June 2013	July 2013	August 2013	September 2013	October 2013	November 2013
50.088	101.423	129.702	110.295	86.539	92.343	98.128	118.72

Generation forecast in MU:

December 2013	January 2014	February 2014	March 2014
113	113	93	89

Actual Variable Cost (Ex-Bus) in Rs.during the FY 2013-14:

April 2013	May 2013	June 2013	July 2013	August 2013	September 2013	October 2013	November 2013
4.77	3.95	3.68	3.86	4.03	3.88	3.82	3.50

3.4. Out of the five units at ETPS, the first two units of 60 MW capacity each and the 3rd and 4th units of 110 MW capacity each are presently in service and the present condition of the 110 MW Unit-V Boiler Water wall tubes is not fit for continuous operation. Revamping of the Unit V by incurring a huge expenditure at this stage is not contemplated since ETPS is to be decommissioned. The Board of TANGEDCO has approved to keep the 110 MW Unit V under shutdown condition till decommissioning of the Station. Ennore TPS units are of lower capacity and of very old design and have served for more than 40 years and are due for decommissioning.

3.5. TANGEDCO proposes to establish a new 660 MW unit as ETPS expansion project at an estimated cost of Rs.4956 crores. On erection and commissioning of the ETPS expansion Unit, it is proposed to decommission the existing old ETPS units and establish another new 660 MW unit as a replacement for the existing station.

3.6. In order to meet the critical grid demand prevailing in the State and also to beneficially utilize the existing infrastructure and the available manpower at ETPS, the Units I, II, III & IV are being kept in service eventhough the Variable Cost (Ex-Bus) is more than Rs.3.50 per KwHr.

4. Submissions made by the Petitioner in the Additional Affidavit dated 25-04-2014 as directed by the Commission on 09-04-2014:-

4.1. Manpower Abstract of ETPS:-

Year	Provincial cadre		RWE cadre		Total		Employee cost in Rs.per unit of Nett generation
	Sanctioned Nos.	Utilised Nos.	Sanctioned Nos.	Utilised Nos.	Sanctioned Nos.	Utilised Nos.	
2011-12	690	563	1620	765	2310	1328	0.79
2012-13	688	521	978	721	1666	1242	1.02
	663	454	959	735	1622	1189	0.66

The 110 MW Unit V at Ennore TPS is under shut down from 06-03-2012 due to frequent boiler tube punctures. The condition of the Unit V Boiler Water Wall tubes is not fit for continuous service and hence revamping of this unit by incurring huge expenditure at this stage is not considered. Under the circumstances, the Board of TANGEDCO has approved to keep the Unit V under shutdown condition till the decommissioning of the Station.

4.2. Consequent to the prolonged shutdown of the Unit V of ETPS, the following number of posts of ETPS have already been re-deployed to other circles of TANGEDCO:

Provincial cadre	-	28 posts
RWE cadre	-	23 posts

Total	-	51 posts

Further re-deployment of the following posts from ETPS is under consideration:-

Provincial cadre	-	49 posts
RWE cadre	-	138 posts

Total	-	187 posts

4.3. Comparative statement of fixed, variable and employee costs on nett generation for 2013-14 in Rs./KwHr :

Station	Total fixed cost (including Employee cost)	Variable Cost	Employee Cost
Tuticorin TPS	0.45	3.25	0.15
Mettur TPS	0.43	3.87	0.16
North Chennai TPS	0.74	3.16	0.23
Ennore TPS	1.22	3.91	0.66

4.4. The month-wise actual generation and variable cost (Ex-Bus) at ETPS during 2013-14 are as below:-

Month and Year	Actual generation in MU	Variable cost Ex-Bus in Rs.
April 2013	50.088	4.77
May 2013	101.423	3.95
June 2013	129.702	3.68
July 2013	110.295	3.86
August 2013	86.539	4.03
September 2013	92.343	3.88
October 2013	98.128	3.82
November 2013	118.72	3.50
December 2013	134.837	3.49
January 2014	110.01	3.96
February 2014	79.026	4.55
March 2014	95.867	4.31

4.5. The cumulative average fixed cost of nett. generation in Tuticorin TPS for the period from April 2013 to March 2014 was Rs.0.450 per KWHR. and the cumulative average variable cost for the said period was Rs.3.250 per KWHR.

The cumulative average fixed cost of nett. generation in Mettur T.P.S.for the said period was Rs.0.43 per KWHr and the cumulative average variable cost for the said period was Rs.3.87 per KWHr.

The cumulative average fixed cost of nett. generation in North Chennai T.P.S. for the above period was Rs.0.74 per KWHr. and the cumulative average variable cost for the said period was Rs.3.16 per KWHr.

The cumulative average fixed cost of nett. generation in ETPS for the period from April 2013 to March 2014 was Rs.1.22 per KWHr. and the cumulative average variable cost for the said period was Rs.3.91 per KWHr.

5. Findings of the Commission:-

5.1. We have carefully considered the prayers of the Petitioner which are as follows:-

(a) Ratification and approval of the Commission to keep the Units I, II, III and IV of Ennore TPS in service till decommissioning of the Station to meet the grid demand to the extent feasible by beneficially utilizing the existing infrastructure and the available manpower of ETPS eventhough the variable cost (Ex-Bus) is more than Rs.3.50 per KWHr ; and

(b) Approval to consider the installed capacity of Ennore TPS as 340 MW instead of 450 MW (i.e.) excluding the 110 MW Unit V for calculation of PLF and other performance parameters of ETPS since the Board of TANGEDCO has approved to keep the 110 MW Unit V under shutdown condition till decommissioning of the Station.

5.2. It may be seen that the first prayer of the Petitioner is for ratification and approval of the Commission to keep Unit No.I, II, III, IV of Ennore TPS in service till

de-commissioning of the same to meet critical demand and to further accord approval for the variable cost in excess of Rs.3.50 per unit.

The second prayer of the Petitioner is that the installed capacity may be taken as 340 MW instead of 450 MW for calculation of PLF and other performance parameters.

5.3. In order to examine the merits of the prayer, it is necessary to go into the averments of the Petitioner in the affidavit. It is to be noted that as seen from the Board Resolution of the TANGEDCO that the Board of TANGEDCO approved the de-commissioning of the Unit No.V and to exclude the capacity of the Unit No.V of Ennore TPS from the installed capacity of 450 MW and to de-rate the station to 340 MW for calculation of PLF and other performance parameters. It is seen from the Additional Affidavit filed on 28-04-2014, the 110 MW Unit V at Ennore TPS is under shut down from 06-03-2012 due to frequent Boiler Tube punctures. Further, TANGEDCO has stated that the condition of the Unit V Boiler Water wall tubes is not fit for continuous service and hence revamping of this Unit by incurring huge expenditure at this stage would not be advisable. Hence, the Board of TANGEDCO has approved to keep the Unit V under shut down condition till the decommissioning of the station vide Per (FB) TANGEDCO Proceedings No.70 (Technical Branch), dated 04-07-2013.

5.4. The Commission in its S.M.T. Order No.9 of 2014, dated 11-12-2014, also took the installed capacity of the Ennore TPS (Plant) at 340 MW only for the year 2014-15 as the Unit V was under shut down for decommissioning. In the said order, the energy availability for the year 2014-15 has been determined based on the installed capacity at 340 MW. Further, a new Ennore expansion project of 1 x 660 MW is on the anvil as the unit has served for more than 40 years and outlived its

utility. The said reasons are found acceptable. In view of the same, the Commission approves the action of the Board of TANGEDCO in de-commissioning of Unit V of ETPS and de-rating the installed capacity from 450 MW to 340 MW.

5.5. As regards the approval for the variable cost which is likely to be more than Rs.3.50 per unit, it may be noted that the Commission in its S.M.T. Order No.9 of 2014, dated 11-12-2014 has considered the energy availability taking the installed capacity of the Ennore TPS at 340 MW but approved only the fixed cost under the Power Purchase Cost for the year 2013-14 and 2014-15 as the energy available from Ennore TPS is outside Merit Order Despatch.

The Ennore TPS is an own station of TANGEDCO and the capacity available with TANGEDCO in respect of the above power station is 340 MW. The Commission in respect of the petitions filed by TANGEDCO in M.P.Nos.9,10,13,14,16,28,53,72 and 81 of 2013 and M.P.Nos.9 & 18 of 2014 seeking approval and ratification for dispatch of power from the high cost power producers outside merit order for the months of April 2013 to February 2014 from various sources issued order dated 15-09-2014 wherein it has allowed the procurement cost only to the extent of average rate of realization of the Petitioner for the purpose of ARR. Further, in the petition in respect of the P.P.A.P.No.2 of 2014, seeking approval of the Commission for procurement of power from M/s.GMR Power Corporation Ltd. for a period of one year i.e. from 15-02-2014 to 14-02-2015 subject to the Merit Order Despatch in force, the Commission in its order dated 13-02-2015 has also approved the Power Purchase Cost only at the actual rate of realization of the Petitioner by Sale of Power in the respective years for the purpose of ARR. Therefore, the Commission considers it appropriate to approve the actual rate of realization in respect of Ennore TPS I, II, III, IV units as well. It also follows that the

Commission while determining the Generating Cost / Power Purchase cost for Ennore TPS in the respective years will consider only the actual rate of realization of the Petitioner for the purpose of ARR till decommissioning of all the units of the plant.

5.6. The Commission is of the view that there is a power shortage in the State of Tamil Nadu which is required to be met from all sources including the TANGEDCO's own plants. As stated by the Petitioner in the petition, there is a critical grid demand prevailing in the State and there is a need to utilize the existing infrastructure and the available man power at Ennore TPS Unit No. I, II, III, and IV in service, though the variable cost exceeds Rs.3.50 per unit to overcome the critical demand condition. It is further seen that TANGEDCO has proposed to establish new 660 MW Unit as Ennore TPS expansion project at an estimated cost of Rs.4956 crores and upon the erection and commissioning of the same, the de-commissioning of the old Ennore TPS units will take place.

5.7. In view of the same, the Commission deems it fit to approve the proposal of TANGEDCO for keeping the Ennore TPS in service till the new 660 MW Unit in the Ennore TPS expansion project comes up. The TANGEDCO shall inform the Commission about the status of the establishment of 660 MW Unit at regular intervals. The present proposal for beneficial use of the Ennore TPS I, II, III and IV is approved till such time, the said units are decommissioned for the purpose of 660 MW new plant. However, if sufficient power to meet the demand is available from other sources, where the cost of such power is less than the variable cost of this station, the Petitioner by the principle of merit-order shall endeavor to curtail or stop availing from the station.

6. Appeal:-

An appeal against this order shall lie before the Appellate Tribunal for Electricity under section 111 of the Electricity Act, 2003 within a period of 45 days from the date of receipt of a copy of this order by the aggrieved person.

(Sd.....)
(G.Rajagopal)
Member

(Sd.....)
(S.Akshayakumar)
Chairman

/ True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission