

No. MERC/FAC/20102011/ 02137

Date: 1 February 2011

To
The Managing Director
The Tata power Company Ltd
24, Homi Mody street
Mumbai 400001

Subject : Approval of FAC submission of TPC-D for Q1FY11

Reference : TPC-D's submission No REG/MERC/10/323 dated 1 December 2011

Sir

The Commission has scrutinized the FAC computation submitted by you as above and approved the FAC chargeable to the consumers for the months April 2010, May 2011 and June 2011 as 42.10 paise per kWh for each of these months, being the 10% cap applicable. At the end of Q1FY11, an amount of Rs.263.01 Crore is carried forward for adjustment at future date.

The detailed report and vetted summary sheet are attached herewith.

Yours faithfully

Sd/
(K N Khawarey)
Secretary, MERC

Enclosed : Detailed report

Cc:

All consumer representatives as per attached list

Names and Addresses of Consumer Representatives authorized as per Section 94 (3) of the Electricity Act 2003

<p>Prayas Energy Group, Amrita Clinic, Athawale Corner, Lakdipool-Karve Road Junction, Deccan Gymkhana, Karve Road, Pune 411 004.</p>	<p>The President, Mumbai Grahak Panchayat, Grahak Bhavan, Sant Dnyaneshwar Marg, Behind Cooper Hospital, Vile Parle (West), Mumbai 400 056.</p>
<p>The General Secretary, Thane Belapur Industries Association, Plot No.P-14, MIDC, Rabale Village, PO Ghansoli, Navi Mumbai 400 7001</p>	<p>The President, Vidarbha Industries Association, 1st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.</p>
<p>Shri N.Ponarathnam 25, Majithia Industrial Estate Waman Tukaram Patil Marg Deonar, Mumbai 400 088</p>	<p>Shri Rakshpal Abrol Bhartiya Udhami Avam Upbhokta Sangh Madhu Compound, 2nd Floor 2nd Sonawal Cross Road Goregaon (E), Mumbai 400063</p>
<p>Prof Dr G H Barhate Organiser, Grahak Panchayat Shrirampur Chairman, Research Centre C D Jain College of Commerce Shrirampur, Dist Ahmednagar</p>	<p>Shri Sandeep Ohri A-74, Tirupati Tower Thakur Complex Kandivali (E) Mumbai 400101</p>

ANNEXURE- Detailed Vetting Report
Date : February 1, 2011

Subject :Detailed Vetting of Fuel Adjustment Cost (FAC) Charges of The Tata Power Company Ltd. for Q1 FY 11 April 2010 to June 2010

Reference :Tata Power's Application for approval of FAC Charge for April 2010 to June 2010 No: REG/MERC/10/323 dated December 1, 2010

1. **Submission by TPC:**

TPC-D, vide its submission dated December 1, 2010, has computed the FAC for the month of April 2010 to June 2010 in accordance with the Order dated June 15, 2009 in the matter of Annual Performance Review for (APR) for FY 2008-09 and Tariff Determination for FY 2009-10 (herein after 'APR Order') passed by the Commission and detailed methodology as per MERC (Terms and Conditions of Tariff) Regulations, 2005. The relevant parameters approved in the APR Order for computation of FAC are enclosed at Appendix-1

In terms of the aforesaid Regulation a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for the FAC charges. Accordingly, TPC-D has submitted details of FAC chargeable from all consumers for the months April 2010 to June 2010 covering 1st quarter of FY 2010-11.

The Commission has approved FAC of Rs. 14.27 Crores, Rs 15.50 Crores and Rs. 15.29 Crores for months April 2010, May 2010, June 2010 resp. The monthly amount to be recovered is the 10 % cap value of paise 42.1/kWh for all above months of Q1FY11. At the end of the said quarter Rs 263.01 Crores have been allowed to be carried forward for recovery at future date.

2. **Methodology :**

The methodology for arriving at FAC is as per Tariff Order dated 15th June, 2009. The salient features for arriving at FAC for the above period are as under:

- a. Variable cost of generation is calculated based on net generation for Tata Power-G.
- b. The hydro generation continues to be charged based on the variable tariff @ Rs. 2.00 per kWh and Rs. 1.65 per kWh for peak and off peak period generation respectively. These charges are considered as given in the Tariff Order dated 28th May, 2009.
- c. Normative parameters of Heat Rate, Auxiliary Consumption, Transmission and Distribution loss are considered.

- d. Actual Distribution losses have been computed based on the metering arrangement established between Tata Power-T and Tata Power-D. The distribution loss computed is widely fluctuating from month to month viz. For April 2010 it is 1.46%, for May 2010 it is -4.60% and for June 2010 it is -0.80% . It is appreciated that such wide fluctuations are due to the very small base of sales and inherent low distribution loss levels. Hence, TPC has presented average Distribution loss for the said quarter, viz . -1.30%
- e. Power purchase for Tata Power-D requirement is considered from all sources of power usually purchased by the utility.

The sources include power from contracted capacity of Tata Power-G, renewable sources (wind), power purchase through bilateral contracts and power purchase through banking mechanism, Unscheduled Interchanges.

- f. The cap on the FAC rate, as per the Commission's Tariff Order dated 15th June, 2009 for Tata Power-Distribution Business, which is set at 10% of the average variable charge works out to 42.10 paise/kWH for the months April 2010 to June 2010.
- g. As explained by TPC-D, the G<>T interface MUs as shown in the "Energy Balance" tabulation of the FAC submission, is arrived at, after subtracting the grossed up requirement of TPC-D's consumers outside the license area, from the G<>T interface MUs given in the IBSM statement under Item B for the respective month. The reconciliation, of TPC-D's Energy balance statement with SLDC's IBSM statements is thus achieved.

3. Variable cost of generation for Tata Power-G:

While assessing the actual variable cost of generation, the Commission has assessed unit wise variable cost of generation and weighted average variable cost of generation considering the following:-

- a. Change in generation mix
- b. Change in fuel price
- c. Normative operating parameters (i.e. heat rate and auxiliary consumption) as set out in the Tariff Order.

a. Change in generation mix:

The Commission has carried out a broad assessment of adherence to the principles of merit order dispatch by comparing fuel wise, unit wise monthly gross generation with the levels considered in the Tariff Order and seeking justification for any material variation.

b. Change in Fuel Price:

Actual variable cost of power generation of each unit is certified by Cost Accountant. Tata Power also has submitted Fuel Analysis Report of representative

monthly samples of fuels certified by an Independent Certification Agencies viz M/s SGS India Pvt Ltd, Mumbai in support of actual fuel calorific value of Coal and M/s Intertek Lab for Oil

c. Normative Operating Parameters:

Tata Power has considered Unit-wise approved heat rate as per the Tariff Order for Tata Power-G dated 28th May 2009 for computing actual Unit-wise, variable cost of generation on monthly basis and the same is allowed.

For Trombay Unit 6 , the same approved heat rate is considered for all fuels. (Oil and RLNG).

4. Variable cost of power purchase of Tata Power-D:

In addition to purchase from Tata Power-G, Tata Power-D has considered power purchase from the Wind Plants of Tata Power, short term power purchase through bilateral contracts, power purchase through Banking mechanism and Unscheduled interchanges (UI)

5. Change in variable cost of power purchase (“C”):

Change in variable cost of power purchase (Rs Lakhs) has been arrived at by multiplying power purchase (MUs) with the change in weighted average cost (Rs/kWh) of power purchase. The change in variable cost of power purchase for months April 2010 to June 2010 is,

Rs 1.62/kWH , Rs.1.45/kWH and Rs. 1.77 per kWH respectively, taking them to Rs 3.77/kWH, Rs. 3.60/kWH and Rs. 3.91 per kWH resp. for these months, as against the approved rate of Rs 2.148 per kWH

The net change in variable cost of power purchase for the months April 2010 to June 2010 is Rs 5796.95 Lakhs; Rs.5432.74 Lakhs and Rs.6648.81 Lakhs respectively

6. Interest on working capital (“I”):

Interest on working capital has been granted at the approved Interest rate for the eligible amount viz the difference between the Normative Actual variable cost of Power procurement and the Order cost of power procurement, for the respective month

7. Adjustment factor for over recovery / under recovery (“B”):

In Form 6.6 of the FAC submission, the Adjustment factor is computed by considering the records of over/under recovery in the past as well as the costs

approved by the Commission in the previous months and allowed to be carried forward for recovery in the future months.

In this context, it is noticed that TPC has carried forward all these costs from the previous months, in spite of the fact that these would be “Trued up” eventually through the APR exercise. To the query as above, TPC has furnished explanation. In the said explanation TPC has stated that the true up for the financial year FY 2009-10 would be carried out during the APR process next year and at that time. As in the past, TPC would include the “net under recovered/over recovered amount” in its ARR for consideration by the Commission. TPC has stated that after the gap calculation, the Commission had disallowed certain carried forward amount which is being deducted from the TPC claims in the ensuing months, in a phased out manner. TPC has submitted that the present FAC submission is also on the same lines, and has requested that the same may be approved.

In the meeting held at the Commission’s office on 7 January 2011, TPC was asked to furnish the computation of Rs. 35.83 Crores which had been shown as refund by TPC in a phased manner (in proportion to the MU consumption). The said detail has been furnished by TPC accordingly.

In view of the above explanation, TPC’s FAC submission has been accepted. The Adjustment factor as arrived at, is as follows :

Adjustment Factor

SNo	Parameter	Unit	Apr 10	May 10	June 10
(A)	(B)	(C)	(D)	(E)	(F)
1	Adjustment for over-recovery/under-recovery ('B')				
1.1	Incremental Cost Allowed to be Recovered in the month j-4	Rs Lakh	1095	1169	1427
1.2	Incremental cost in Month j-4 actually recovered in month j-2	Rs Lakh	1334	1482	1533
1.3	Over-recovery/under-recovery (1.1-1.2)	Rs Lakh	-239	-314	-106
2	Carried forward adjustment for over- /under-recovery attributable to application of ceiling limit	Rs Lakh	13674	17503	21174
2.1	Adjustment for (Total amount T.O. 3583.19)	Rs Lakhs	-405	0	0
3	Adjustment factor for over/under-recovery(1.3+2.0)	Rs Lakh	13030	17189	21067

Note: The item 2.1 in the Table above, is towards the appropriation of Rs 3583.19 lakhs projected in the ARR application by TPC as "unrecovered FAC", but the same has not been considered by the Commission in the Gap calculations. Hence it is assumed to be carried over for recovery at future date and hence it is being deducted per month in proportion with sales of the month.

8. Excess Distribution Loss:

The approved distribution loss for TPC-D for FY 10 it is 0.63 %

The Actual Distribution Loss in April 2010 to June 2010 is 3.33% , -4.20%, 8% respectively.

The average loss of the concerned quarter is 2.86%. Based on this, deduction or addition in MU loss is made for resp months

9. Summary of FAC

The summarized details of FAC (A) & FAC per unit for the months April 2010 to June 2010 are as under:

S.No	Parameter	Apr-10	May-10	Jun-10
	(B)	(AD)	(AD)	(AD)
1.0	Calculation of FAC (A)			
1.1	Change in weighted average variable cost of power purchase(C)	5797	5433	6649
1.2	Working Capital Interest (I)	83	83	95
1.3	Adjustment for Over Recovery/Under Recovery (B)	13030	17189	21067
2.0	FAC (A) = C + I + B	18910	22705	27811
	Calculation of FAC_{kWh}			
2.1	Sale within License Area	339	368	363
2.2	Excess T&D Loss	5	4	4
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	566	624	775
2.4	Cap on monthly FAC Charge	42.1	42.1	42.1
3.0	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	42.1	42.1	42.1
	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge (Est)	1427	1550	1529
3.2	FAC (A) disallowed corresponding to excess T&D loss (Est)	19	19	19
3.3	Carried forward FAC (A) for recovery during future period (Est)	17503	21174	26301

