



MERC

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

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Ref.: MERC/TPC/FAC/Oct07-Dec07/2007-08 / 2363

December 16, 2008

✓ **The Tata Power Company Ltd.,**

Regulations Department,

Corporate Centre, 'B' Block

34, Sant Tukaram Road,

Carnac Bunder,

Mumbai – 400 009

Kind Attention: Mr V H Wagle, Senior Manager

**Sub: Post Factor approval of The Tata Power Company Ltd.-Distribution business
(TPC-D) Fuel Adjustment Charges (FAC) for October 2007 to December 2007.**

Ref: TPC-D Letter No. REG/MERC/08/044 dated February 22, 2008 received on February 29, 2008.

Dear Sir,

Upon vetting the FAC computations for the month of October to December 2007 submitted vide letter under above reference; the Commission has accorded post facto approval for FAC levied for these months.

The Commission has considered the increase in power purchase cost for these months in case of approved power purchase sources as per the Tariff Order dated April 30, 2007 for FY 2007-08.

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007

Regulations Dept
Inward No. 276
Date 17.12.08

The Commission has approved FAC amount of Rs. 411.18 Lakh, Rs. 571.94 Lakh and Rs. 607.63 Lakh for the months of October, November and December 2007 respectively, the details of which are as given below:

| Particulars | Unit | Oct 2007 | | Nov 2007 | | Dec 2007 | |
|--|------------|----------|------------|----------|------------|----------|------------|
| | | TPC-D | COMMISSION | TPC-D | COMMISSION | TPC-D | COMMISSION |
| FAC (A) = C + I + B | Rs Lakh | 411.18 | 411.18 | 571.94 | 571.94 | 607.63 | 607.63 |
| FAC charge without considering cap on monthly FAC charge | Paise/k Wh | 19.28 | 19.28 | 27.06 | 27.06 | 30.59 | 30.59 |
| Cap on Monthly FAC Charge | Paise/k Wh | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 |
| FAC Charge considering cap on monthly FAC Charge | Paise/k Wh | 19.28 | 19.28 | 27.06 | 27.06 | 30.59 | 30.59 |
| FAC considering cap on monthly FAC Charge | Rs. Lakh | 411.18 | 411.18 | 571.94 | 571.94 | 607.63 | 607.63 |
| FAC disallowed corresponding to excess T&D loss | Rs. Lakh | - | - | - | - | - | - |
| Carried Forward FAC for recovery during future period | Rs. Lakh | - | - | - | - | - | - |

I am directed to forward herewith the detailed vetting and post facto approval of the Commission on FAC charges for the months of October to December 2007.

With regards,



Yours faithfully,

P. B. Patil
(P. B. Patil)
Secretary, MERC

Encl: Detailed Vetting Report

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007

Cc:

Prayas Energy Group,
Amrita Clinic, Athawale Corner,
Lakdipool-Karve Road Junction,
Deccan Gymkhana, Karve Road,
Pune 411 004.

The President,
Mumbai Grahak Panchayat,
Grahak Bhavan,
Sant Dnyaneshwar Marg,
Behind Cooper Hospital,
Vile Parle (West), Mumbai 400 056.

The General Secretary,
Thane Belapur Industries Association,
Plot No.P-14, MIDC,
Rabale Village, PO Ghansoli,
Navi Mumbai 400 7001.

The President,
Vidarbha Industries Association,
1st floor, Udyog Bhawan,
Civil Lines, Nagpur 440 001.

Shri A.D. Mahajan,
Senior Manager,
SICOM Limited,
Nirmal, Nariman Point,
Mumbai – 400 021.

**Detailed Vetting of Fuel Adjustment Cost (FAC) Charges of The Tata Power Company
Ltd. for FY 2007-08**

(Attachment to MERC letter No. /TPC/FAC/Oct07–Dec07 2007-08 dated December 12, 2008.)

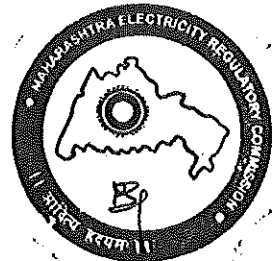
1 Tata Power's Application for approval of FAC Charge for October'07 to December 2007

As per the Tariff Order dated October 3, 2006 and the MERC Tariff Regulations, TPC is required to obtain post facto approval of the Commission on a quarterly basis for the FAC charged.

The methodology for arriving at FAC from the period May, 2007 is as per Tariff Order dated April 30, 2007. The salient features for arriving at FAC for the period May 2007 onwards are as under:

- a. Variable cost of generation is calculated based on net generation for the Tata Power Company Ltd.- Generation business (TPC-G). 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 April 2, 2007.
- b. Normative parameters of Heat Rate, Auxiliary Consumption, Transmission and Distribution loss are considered.
- c. Normative Distribution losses are considered for calculations as metering arrangement at the Tata Power Company Ltd. - Transmission business (TPC-T) and TPC-D has been established in October 2007 and the determination of the actual loss is in progress and is expected to be complete by March 2008.
- d. Power purchase is considered from non expensive sources of TPC-G and wind based generation. (excluding power from Unit-4 oil and external source)

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007



- e. The cap on the FAC charge, as per the Commission's Tariff Order dated April 30, 2007 for TPC-D, which is set at 10% of the average variable charge works out to 45 paise per kWh. The working for the cap on FAC rate for FY08 is shown in the following table:

| | | | |
|---|---------|------------|------|
| Annual Sales for TPC-D as approved in Tariff Order for FY08 | MUs | A | 2933 |
| Variable Charges as approved for FY08* | Rs. Cr. | B | 1307 |
| Average Variable charges (VC) for FY08 – TPC (D) | Rs./kWh | $C=B/A*10$ | 4.46 |
| Cap on FAC Rate (10% of Avg VC) | Rs./kWh | $D=C*0.10$ | 0.45 |

* - Variable component of tariff includes energy charge, Rs. 733 Crores and Reliability Charge, Rs. 574 Crores.

- f. The normative parameters as per the Tariff Order dated April 30, 2007 are as under:

| Sr.No. | Parameter | Unit | Normative Rate |
|--------|--|----------|----------------|
| 1. | Heat Rate | | |
| | Unit # 4 | kCal/kWh | 2565 |
| | Unit # 5 | kCal/kWh | 2489 |
| | Unit # 6 | kCal/kWh | 2400 |
| | Unit # 7 | kCal/kWh | 1971 |
| 2. | Auxiliary Consumption | | |
| | Hydro | % | 0.50 |
| | Unit # 4 | % | 8.00 |
| | Unit # 5 | % | 5.50 |
| | Unit # 6 | % | 3.50 |
| | Unit # 7 | % | 2.75 |
| 3. | Distribution Loss (TPC-D) | % | 2.93 |
| 4. | Transmission Loss | % | 4.85 |
| 5. | Weighted Average variable cost of power purchase (Excl. U#4 & Expensive power) | Rs./kWh | 2.76 |

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007



Variable cost of generation for TPC-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:-

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

Change in Fuel Price:

Actual variable cost of power generation of each unit is certified by Cost Accountant. TPC also submitted Fuel Analysis Report of representative monthly samples of fuels certified by an Independent Certification Agencies viz, M/s Geo-Chem Laboratories Pvt. Ltd., Mumbai in support of actual fuel calorific value.

Normative Operating Parameters:

TPC has considered Unit-wise approved heat rate as per the Tariff Order dated April 2, 2007 for computing actual Unit-wise, variable cost of generation on monthly basis and the same is allowed.

Variable cost of power purchase of TPC-D:

In addition to TPC-G, TPC-D has considered power purchase sources from the Wind Plants of TPC.

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

Change in variable cost of power purchase (Rs Lakh) has been arrived at by multiplying power purchase (MU) with the change in weighted average cost (Rs/kWh) of power purchase.



Interest on working capital ("I"):

TPC has not considered any interest on working capital due to change in prices of fuel and accordingly, the Commission has also not considered the same.

Adjustment factor for over recovery / under recovery ("B"):

The adjustment factor for over / under recovery "B" has been worked out as shown in Table 6.6.

The Commission has also factored the carried forward adjustment (if applicable) for over / under recovery attributable to application of ceiling limit in the computation of component "B".

Excess Distribution Loss:

TPC-D's distribution loss of 2.93% is approved as per the Tariff Order dated April 30, 2007 and is considered for arriving at the requirement of TPC-D. Thus there is no excess Distribution loss.

Calculation of FAC ("A") and FAC per unit:

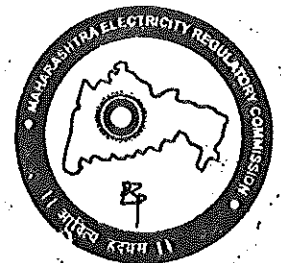
FAC ($A=C+I+B$) has been considered at Rs 411.18 Lakh, Rs. 571.94 Lakh and Rs. 607.63 Lakh for October, November and December 2007 respectively. The details are given in Table 6.7.

FAC per unit has been computed by considering FAC (A) for the License area, Energy sales submitted by TPC-D for the License area and Excess Distribution Loss. The Commission approves the FAC rate of 19.28 paise/kWh, 27.06 paise/kWh, and 30.59 paise/kWh for the months of October, November and December 2007 respectively.

FAC charge considering monthly cap:

FAC charge per unit for the months of October 2007, November and December 2007 is lower than the cap of 45 paise / kWh on FAC charge. Thus there is no carry forward FAC. The details are given in Table 7.1.

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007



Summary of FAC

The summarized details of FAC (A) & FAC per unit are shown in the Table below:

| Particulars | Unit | October 2007 | | November 2007 | | December 2007 | |
|---|------------|--------------|------------|---------------|------------|---------------|------------|
| | | TPC-D | COMMISSION | TPC-D | COMMISSION | TPC-D | COMMISSION |
| Calculation of FAC (A) | | | | | | | |
| Change in weighted average variable cost power purchase | Rs Lakh | 445.67 | 445.67 | 537.95 | 537.95 | 615.43 | 615.43 |
| Working Capital Interest (I) | Rs Lakh | - | - | - | - | - | - |
| Adjustment for Over Recovery/Under Recovery (B) | Rs Lakh | (34.49) | (34.49) | 33.99 | 33.99 | (7.80) | (7.80) |
| FAC (A) = C + I + B | Rs Lakh | 411.18 | 411.18 | 571.94 | 571.94 | 607.63 | 607.63 |
| FAC charge without considering cap on monthly FAC charge | Paise/k Wh | 19.28 | 19.28 | 27.06 | 27.06 | 30.59 | 30.59 |
| Cap on Monthly FAC Charge | Paise/k Wh | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 |
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| FAC considering cap on monthly FAC Charge | Rs. Lakh | 411.18 | 411.18 | 571.94 | 571.94 | 607.63 | 607.63 |
| FAC disallowed corresponding to excess T&D loss Carried Forward FAC for recovery during future period | Rs. Lakh | - | - | - | - | - | - |

Detailed vetting and approval of FAC charges for the month of October 2007 to December 2007

