

No. MERC/FAC/20102011/02518

Date: 12<sup>th</sup> January 2012

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

**Subject :** Detailed Vetting of Fuel Adjustment Cost (FAC) Charges of  
The Tata Power Company Ltd. for QIV FY 11, January 2011  
to March 2011  
And for QIFY12, April 2011 to June 2011

**Reference :** TPC-D's submission No REG/MERC/2011/293 dated November 3, 2011,  
for QIV FY 2010-11 and TPC-D's submission No REG/MERC/2011/294  
dated November 3, 2011 for post facto Vetting for Q1FY12

Sir

The Commission has scrutinized the FAC computation submitted by you as above and approved the FAC chargeable to the consumers for QIV FY 11, (January 2011 to March 2011) and for QIFY12 (April 2011 to June 2011). At the end of QIFY12, an amount of Rs.40.26 Crore is carried forward for adjustment at future date .

The detailed report and vetted summary sheet are attached herewith as Annexure I and Annexure II

Yours faithfully

(Kuldip N. Khawarey)  
Secretary, MERC

Enclosed : Detailed report: Annexure I and Annexure II

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

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 Dynyaneshwar 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, 1 <sup>st</sup> floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.

## **ANNEXURE-I Detailed Vetting Report for QIV FY11**

**Date : 12<sup>th</sup> January , 2012**

**Subject :** Detailed Vetting of Fuel Adjustment Cost (FAC) Charges of The Tata Power Company Ltd. for QIV FY 11, January 2011 to March 2011

**Reference :** TPC-D's submission No REG/MERC/2011/293 dated November 3, 2011, for QIV FY 2010-11 for post facto Vetting

### **1. Submission by TPC:**

TPC-D, vide its submission dated November 3, 2011, has computed the FAC for the month of January 2011 to March 2011 in accordance with the Order in Case 98 of 2009, dated 12<sup>th</sup> September 2010 in the matter of The Tata Power Company Limited - Distribution Business' (TPC-D) Petition for Truing Up for FY 2008-09, Annual Performance Review for FY 2009-10 and Tariff Determination for FY 2010-11 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-1.1

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 January 2011 to March 2011 covering 4<sup>th</sup> quarter of FY 2010-11.

The Commission has approved FAC of Rs. 18.12 Crores, Rs 18.12 Crores and Rs. 19.43 Crores for months January 2011, February 2011, March 2011 resp. The monthly amount to be recovered is the 10 % cap value of paise 49.95/kWH. At the end of the said quarter Rs 78.74 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 in Case 98 of 2009, dated 12<sup>th</sup> September 2010. 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, - allocated to TPC-D, Bilateral purchases and procurement of Renewable energy
- 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 in Case 98 of 2009, dated 12<sup>th</sup> September 2010

- c. Normative/specified 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 approved Distribution losses and these are 0.66% The distribution loss computed is widely fluctuating from month to month as the quantity of energy to be metered is very small compared to the feeder sizes and respective instrumentation provided, viz. For January 2011 it is 1.27%, for February 2011 it is -0.96% and for March 2011 it is reported to be 5.13% . It is understood 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 . 1.98%, which is approved.
- 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 in Case 98 of 2009, dated 12<sup>th</sup> September 2010 for Tata Power-Distribution Business which is set at 10% of the average variable charge works out to 49.95 paise
- g. As submitted by TPC-D, the G<>T interface MUs as shown in the “Energy Balance” tabulation of the FAC submission, is arrived at, as follows :

			Jan-11	Feb-11	Mar-11
<b><u>Tata Power-D Requirment</u></b>					
Tata Power -D Input	Mus	(i)	227.07	208.08	246.73
Changover	Mus	(ii)	140.20	144.70	179.93
Gross up for Trans Loss	Mus	(iii)	16.45	15.45	19.69
Tata Power-D Requirment at G<> T interface	Mus	(iii)=(i)+(ii)+(iii)	383.72	368.23	446.35
Banking Return	Mus	(iv)			
<b>Total of TPC-D</b>	<b>Mus</b>	<b>(v)=(iv)+(iii)</b>	<b>383.72</b>	<b>368.23</b>	<b>446.35</b>

			Jan-11	Feb-11	Mar-11
<b><u>Met Through</u></b>					
Tata Power-G Share	Mus	a	254.56	257.12709	294.93
RPO	Mus	b	32.46	29.66570	12.50
Contracted Purchase	Mus	c	51.94	42.57058	92.96
Less External Sales	MUs	b	-17.95	-9.25070	-1.02
Drawl/Supplied to Pool	MUs	d	62.71	48.12102	46.99
<b>Total</b>	<b>Mus</b>	<b>c=a+b</b>	<b>383.72</b>	<b>368.23</b>	<b>446.35</b>

This is comparable to the IBSM statement for the corresponding months. 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** for January to March 2011 as per the Tariff Order for Tata Power Company Ltd.'s Generation Business' (TPC-G) for approval of Truing up for FY 2008-09, Annual Performance Review for FY 2009-10 and Determination of Tariff for FY 2010-11 for computing actual Unit-wise, variable cost of generation on monthly basis and the same is allowed.

For Trombay Unit 6 (multi-fuel fired unit) the same approved heat rate is considered for all fuels. (Oil and RLNG) as approved in the Tariff Order as above.

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 January 2011 to March 2011 is as given below

For the months of QIVFY11, the Commission has approved weighted average variable cost of power purchase as Rs 3.381/kWH. As against this, the normative actual cost incurred is,

Rs 3.03/kWH in January 2011, Rs.3.46/kWH in February 2011 and Rs.4.02 /kWH in March 2011

The explanation for the variance as above, is as follows :

It is observed from TPC's submission that

Vide the tariff order under reference above, applicable for months January 2011 to March 2011 , the Commission had approved purchase of 25.56 MUs/ month energy by from sources other than TPC-G, at the rate of Rs 4.76/kWH. However, the procurement from these sources has been substantially high (4 times the MUs envisaged/approved by the Commission in the Tariff Order), on account of increase in demand due to migrated customers. However, the cost of such procurements was lower in January 2011, witnessed an increasing trend and was Rs. 5.20/kWH in March 2011. These procurements have offset comparatively low cost of TPC-G power, especially in March 2011, and therefore, overall increase is seen in cost of energy procured by TPC-D in March 2011.

The net change in variable cost of power purchase for the months January 2011 to March 2011 is Rs 1331.21 Lakhs; Rs.280.79 Lakhs and Rs.2856.93 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 months. TPC-D has submitted for approval, the Interest on working capital due to enhanced fuel costs, @ 12.34% Rs (4.27) Lakhs for January 2011, @ 12.5% Rs 7.01 Lakhs for February 2011 and @ 13% Rs 63.81 Lakhs for March 2011. The same is approved.

**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. The Adjustment factor as arrived at, is as follows :

**Adjustment Factor**

Sr No.	Parameter	Unit	January 2011	February 2011	March 2011
(A)	(B)	(C)	(D)	(E)	(F)
<b>1.0</b>	Adjustment for over-recovery/under-recovery ('B')				
<b>1.1</b>	Incremental Cost Allowed to be Recovered in the month j-4	Rs Lakh	1846	1789	1812
<b>1.2</b>	Incremental cost in Month j-4 actually recovered in month j-2	Rs Lakh	1806	1812	1943
<b>1.3</b>	Over-recovery/under-recovery (1.1-1.2)	Rs Lakh	41	(23)	(131)
<b>1.4</b>	Tariff Order adjustment	Rs Lakh	1417	1393	1584
<b>2.0</b>	Carried forward adjustment for over- /under-recovery attributable to application of ceiling limit	Rs Lakh	16120	11581	8627
<b>3.0</b>	Adjustment factor for over/under-recovery(1.3+2.0)	Rs Lakh	<b>14743</b>	<b>10165</b>	<b>6912</b>

## **8. Excess Distribution Loss:**

The approved distribution loss for TPC-D for FY 10 it is 0.66 %

The Actual Distribution Loss in January 2011, February 2011 and March 2011 is 1.27% , -0.96% and 5.13% respectively. The wide variations are due to measurement inadequacies. Hence, average loss for the quarter is considered by the Commission for incentivisation/ dis-incentivisation

The average loss of the concerned quarter is 1.98%. Based on this, deduction or addition in MU loss is made for respectively months

## 9. Summary of FAC

The summarized details of FAC (A) & FAC per unit for the months January 2011 to March 2011 are as under:

S.No	Parameter	Unit	Jan 11	Feb 11	March 11
	(B)	(C)	(AD)	(AD)	(AD)
1.0	<b>Calculation of FAC (A)</b>				
1.1	Change in weighted average variable cost of power purchase( C )	Rs Lakh.	1331	281	2857
1.2	Working Capital Interest (I)	Rs Lakh.	4	7	64
1.3	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh.	14743	10165	6912
2.0	<b>FAC (A) = C + I + B</b>	<b>Rs Lakh.</b>	<b>13408</b>	<b>10453</b>	<b>9833</b>
a)	<b>Adjustment due to IBSM</b>	<b>Rs Lakhs</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total FAC(A)</b>	<b>Rs Lakhs</b>	<b>13408</b>	<b>10453</b>	<b>9833</b>
	<b>Calculation of FAC<sub>kWh</sub></b>				
2.1	Sale within License Area	MU	<b>362.75</b>	356.47	405.41
2.2	Excess T&D Loss	MU	3	3	3
2.3	FAC Charge (FAC <sub>kWh</sub> ) without considering cap on monthly FAC Charge	Paise / KWh	366.57	290.98	240.61
2.4	Cap on monthly FAC Charge	Paise / KWh	49.95	49.95	49.95
3.0	<b>FAC Charge (FAC<sub>kWh</sub>) considering cap on monthly FAC Charge</b>	<b>Paise / KWh</b>	<b>49.95</b>	<b>49.95</b>	<b>49.95</b>
	<b>FAC (A)</b>				
3.1	FAC (A) considering cap on Monthly FAC Charge (Est)	Rs Lakh.	1812	1812	1943
3.2	FAC (A) disallowed corresponding to excess T&D loss (Est)	Rs Lakh.	15	14	16
3.3	<b>Carried forward FAC (A) for recovery during future period (Est)</b>	<b>Rs Lakh.</b>	<b>11581</b>	<b>8627</b>	<b>7874</b>

### 10. FAC charged as per MERC amended Regulations (Consumer Category-wise FAC)

Consumer Category	E.nergy Charge	FAC cap	FAC applicable for Feb 2011	FAC applicable for March 2011
	a	d = a *10%	e =min(c,d)	e =min(c,d)
	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh
<b>LT 1 - Residential</b>		10%		
Below Poverty Line (BPL 0-30Units)	0.4	0.04	0.04	0.04
> S1 (0-100 units)	1.05	0.11	0.11	0.11
> S2 (101-300 units)	2.5	0.25	0.25	0.25
> S3 (above 300 units)	4.4	0.44	0.44	0.44
> S4 (> 500 Units)	5.3	0.53	0.53	0.53
<b>LT II - LT Commercial</b>				
> 0 - 20 kW (LT-II -a)	4.25	0.43	0.43	0.43
> 20kW and <= 50 kW (LT-II -b)	4.8	0.48	0.48	0.48
> 50 kW (LT -II -c)	5.05	0.51	0.51	0.51
<b>LT III - LT Industries below 20 kW Load</b>	4.5	0.45	0.45	0.45
<b>LT IV - LT Industries above 20 kW Load</b>	5.10	0.51	0.51	0.51
<b>LT IX - Agriculture</b>				
<b>LT VI - Street Light</b>	4.00	0.40	0.40	0.40
<b>LT VII - Temporary-Others (LT VII - b)</b>	11	1.10	1.10	1.10
<b>LT VII - Temporary-Religious (LT VII - a)</b>	2.00	0.20	0.20	0.20
<b>LT V - Advt &amp; Hoardings</b>	13.55	1.36	1.36	1.36
<b>LT VIII - Crematorium and Burial Grounds</b>				
<b>HT I - Industry</b>	5	0.50	0.50	0.50

<b>Consumer Category</b>	<b>E.nergy Charge</b>	<b>FAC cap</b>	<b>FAC applicable for Feb 2011</b>	<b>FAC applicable for March 2011</b>
<b>HT II - Commercial</b>	5.2	0.52	0.52	0.52
<b>HT III - Group Housing Society</b>	4.1	0.41	0.41	0.41
<b>HT IV - Temporary Supply</b>	9	0.90	0.90	0.90
<b>HT V - Railways</b>				
> 22/33 kV	4.95	0.50	0.50	0.50
> 100kV	4.80	0.48	0.48	0.48
<b>Total Recovery</b>				

Appendix-1.1

The normative parameters, are as under:

Sr.No.	Parameter	Unit	Normative Rate
			as per tariff order dated 8th Sept 2010
1	<b>Heat Rate</b>		
	Unit # 4	kCal/KWh	2683
	Unit # 5	kCal/KWh	2577
	Unit # 6	kCal/KWh	2514
	Unit # 7	kCal/KWh	1971
2	<b>Auxiliary Consumption</b>		
	Hydro	%	
	Unit # 4	%	8
	Unit # 5	%	5.5
	Unit # 6	%	3.5
	Unit # 7	%	2.75
3	<b>Distribution Loss (TPC-D)</b>	%	0.66
4	<b>Transmission Loss</b>	%	4.85
5	<b>Weighted Average variable cost of power purchase</b>	Rs./KWh	3.3814

## **ANNEXURE-2 Detailed Vetting Report for QI FY12**

**Date : 12<sup>th</sup> January 2012**

**Subject :** Detailed Vetting of Fuel Adjustment Cost (FAC) Charges of The Tata Power Company Ltd. for QI FY 12, April 2011 to June 2011

**Reference :** TPC-D's submission No REG/MERC/2011/294 dated November 3, 2011, for QI FY 2011-12 for post facto Vetting

### **6. Submission by TPC:**

TPC-D, vide its submission dated November 3, 2011, has computed the FAC for the month of April 2011 to June 2011 in accordance with the Order in Case 98 of 2009, dated 12<sup>th</sup> September 2010 in the matter of The Tata Power Company Limited - Distribution Business' (TPC-D) Petition for Truing Up for FY 2008-09, Annual Performance Review for FY 2009-10 and Tariff Determination for FY 2010-11 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-2.1

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 2011 to June 2011 covering 1st quarter of FY 2011-12.

The Commission has approved FAC of Rs. 21.17 Crores, Rs 22.73 Crores and Rs. 23.54 Crores for months April 2011, May 2011 and June 2011 resp. The monthly amount to be recovered is the 10 % cap value of paise 49.95/kWH  
At the end of the said quarter Rs 40.26 Crores have been allowed to be carried forward for recovery at future date.

### **7. Methodology :**

The methodology for arriving at FAC is as per Tariff Order in Case 98 of 2009, dated 12<sup>th</sup> September 2010. The salient features for arriving at FAC for the above period are as under:

- h. Variable cost of generation is calculated based on net generation for Tata Power-G, - allocated to TPC-D, Bilateral purchases and procurement of Renewable energy
- i. 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 in Case 98 of 2009, dated 12<sup>th</sup> September 2010

- j. Normative/specified parameters of Heat Rate, Auxiliary Consumption, Transmission and Distribution loss are considered.
- k. Actual Distribution losses have been computed based on the metering arrangement established between Tata Power-T and Tata Power-D. The approved Distribution losses and these are 0.66% The distribution loss computed is widely fluctuating from month to month as the quantity of energy to be metered is very small compared to the feeder sizes and respective instrumentation provided, viz. For to June 2011 January 2011 April 2011 it is -2.73% for May 2011 it is 1.74% and for June 2011 it is -0.30%. It is understood 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 . -0.36%, which is approved.
- l. 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.

- m. The cap on the FAC rate, as per the Commission's Tariff Order in Case 98 of 2009, dated 12<sup>th</sup> September 2010 for Tata Power-Distribution Business which is set at 10% of the average variable charge works out to 49.95 paise
- n. As submitted by TPC-D, the G<>T interface MUs as shown in the "Energy Balance" tabulation of the FAC submission, is arrived at, as follows :

			Apr 2011	May 2011	June-11
<b><u>Tata Power-D Requirement</u></b>					
Tata Power -D Input	Mus	(i)	239.12	261.24	251.73
Changover	Mus	(ii)	209.29	227.65	238.43
Gross up for Trans Loss	Mus	(iii)	19.96	22.73	22.34
Tata Power-D Requirement at G<> T interface	Mus	(iii)=(i)+(ii)+(iii)	460.36	511.62	512.49
Banking Return	Mus	(iv)			
<b>Total of TPC-D</b>	<b>Mus</b>	<b>(v)=(iv)+(iii)</b>	<b>460.36</b>	<b>511.62</b>	<b>512.49</b>

			Apr 2011	May 2011	June-11
<b><u>Met Through</u></b>					
Tata Power-G Share	Mus	a	377.45	418.77	404.88
RPO	Mus	b	10.28	0.4	0.15
Contracted Purchase	Mus	c	49.62	36.74	33.45
Less External Sales	MUs	b	-0.80	-6.58	0
Drawl/Supplied to Pool	MUs	d	23.71	62.29	74.01
<b>Total</b>	<b>Mus</b>	<b>c=a+b</b>	<b>460.26</b>	<b>511.62</b>	<b>512.49</b>

This is comparable to the IBSM statement for the corresponding months. The reconciliation, of TPC-D's Energy balance statement with SLDC's IBSM statements is thus achieved.

#### 8. **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** for April 2011 to June 2011 as per the Tariff Order for Tata Power Company Ltd.'s Generation Business' (TPC-G) for approval of Truing up for FY 2008-09, Annual Performance Review for FY 2009-10 and Determination of Tariff for FY 2010-11 for computing actual Unit-wise, variable cost of generation on monthly basis and the same is allowed.

For Trombay Unit 6 (multi-fuel fired unit) the same approved heat rate is considered for all fuels. (Oil and RLNG) as approved in the Tariff Order as above.

**9. 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)

**10. 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 2011 to June 2011 is as given below

For the months of QIFY12, the Commission has approved weighted average variable cost of power purchase as Rs 3.381/kWH. As against this, the normative actual cost incurred is,

Rs 3.50/kWH in April 2011, Rs.4.06/kWH in May 2011 and Rs.4.36 /kWH in June 2011

The explanation for the variance as above, is as follows :

It is observed from TPC's submission that

Vide the tariff order under reference above, applicable for months April 2011 to June 2011, the Commission had approved purchase of 25.56 MUs/ month energy from sources other than TPC-G, at the rate of Rs 4.76/kWH. However, the procurement from these sources has been substantially high (3 to 4 times the MUs envisaged/approved by the Commission in the Tariff Order), on account of increase in demand due to migrated customers. The cost of such procurements was Rs. 5.19/kWH in April 2011, Rs 6.69/kWH in May 2011 and Rs. 6.63/kWH in June 2011, These procurements have offset comparatively low cost of TPC-G power, and therefore, overall increase is seen in cost of energy procured by TPC-D. from April to June 2011 in a progressive manner.

The net change in variable cost of power purchase for the months April 2011 to June 2011 is Rs 566.54 Lakhs; Rs.3458.40 Lakhs and Rs.5028.67 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 months. TPC-D has submitted for approval, the Interest on working capital due to enhanced fuel costs, @ 13% Rs 44.13 Lakhs for April 2011, @ 13% Rs 94.24 Lakhs for May 2011 and @ 13% Rs 111.57 Lakhs for June 2011. The same is approved.

**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. The Adjustment factor as arrived at, is as follows :

**Adjustment Factor**

Sr No.	Parameter	Unit	April 2011	May 2011	June 2011
(A)	(B)	(C)	(D)	(E)	(F)
<b>1.0</b>	Adjustment for over-recovery/under-recovery ('B')				
<b>1.1</b>	Incremental Cost Allowed to be Recovered in the month j-4	Rs Lakh	1812	1943	2117
<b>1.2</b>	Incremental cost in Month j-4 actually recovered in month j-2	Rs Lakh	2117	2273	2354
<b>1.3</b>	Over-recovery/under-recovery (1.1-1.2)	Rs Lakh	(305)	(330)	(237)
<b>1.4</b>	Tariff Order adjustment	Rs Lakh	1776	1889	1908
<b>2.0</b>	Carried forward adjustment for over- /under-recovery attributable to application of ceiling limit	Rs Lakh	7874	4298	3372
<b>3.0</b>	Adjustment factor for over/under-recovery(1.3+2.0)	Rs Lakh	5792	2079	1227

## **8. Excess Distribution Loss:**

The approved distribution loss for TPC-D for FY 10 it is 0.66 %

The Actual Distribution Loss in April 2011, May 2011 and June 2011 is -2.73% , -1.74% and -0.30% respectively. The wide variations are due to measurement inadequacies. Hence, average loss for the quarter is considered by the Commission for incentivisation/ dis-incentivisation

The average loss of the concerned quarter is -0.36%. Based on this, deduction or addition in MU loss is made for respectively months

## 9. Summary of FAC

The summarized details of FAC (A) & FAC per unit for the months April 2011 to June 2011 are as under:

S.No	Parameter	Unit	April 11	May 11	June 11
	(B)	(C)	(AD)	(AD)	(AD)
1.0	<b>Calculation of FAC (A)</b>				
1.1	Change in weighted average variable cost of power purchase( C )	Rs Lakh.	567	3458	5029
1.2	Working Capital Interest (I)	Rs Lakh.	44	94	112
1.3	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh.	5792	2079	1227
2.0	<b>FAC (A) = C + I + B</b>	<b>Rs Lakh.</b>	<b>6403</b>	<b>5632</b>	<b>6367</b>
a)	<b>Adjustment due to IBSM</b>	<b>Rs Lakhs</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total FAC(A)</b>	<b>Rs Lakhs</b>	<b>6403</b>	<b>5632</b>	<b>6367</b>
	<b>Calculation of FAC<sub>kWh</sub></b>				
2.1	Sale within License Area	MU	<b>454.62</b>	483.40	491.09
2.2	Excess T&D Loss	MU	-2	-3	-3
2.3	FAC Charge (FAC <sub>kWh</sub> ) without considering cap on monthly FAC Charge	Paise / KWh	142	117	130
2.4	Cap on monthly FAC Charge	Paise / KWh	49.95	49.95	49.95
3.0	<b>FAC Charge (FAC<sub>kWh</sub>) considering cap on monthly FAC Charge</b>	<b>Paise / KWh</b>			
	<b>FAC (A)</b>				
3.1	FAC (A) considering cap on Monthly FAC Charge (Est)	Rs Lakh.	2117	2273	2354
3.2	FAC (A) disallowed corresponding to excess T&D loss (Est)	Rs Lakh.	(12)	(13)	(13)
3.3	<b>Carried forward FAC (A) for recovery during future period (Est)</b>	<b>Rs Lakh.</b>	<b>4298</b>	<b>3372</b>	<b>4026</b>

**10. FAC charged as per MERC amended Regulations (Consumer Category-wise FAC)**

<b>Consumer Category</b>	<b>E.nergy Charge</b>	<b>FAC cap</b>	<b>FAC applicable for Apr 2011</b>	<b>FAC applicable for May 2011</b>	<b>FAC applicable for June 2011</b>
	a	d = a *10%	e =min(c,d)	e =min(c,d)	e =min(c,d)
	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh
<b>LT 1 - Residential</b>		10%			
Below Poverty Line (BPL 0-30Units)	0.4	0.04	0.04	0.04	0.04
> S1 (0-100 units)	1.05	0.11	0.11	0.11	0.11
> S2 (101-300 units)	2.5	0.25	0.25	0.25	0.25
> S3 (above 300 units)	4.4	0.44	0.44	0.44	0.44
> S4 (> 500 Units)	5.3	0.53	0.53	0.53	0.53
<b>LT II - LT Commercial</b>					
> 0 - 20 kW (LT-II -a)	4.25	0.43	0.43	0.43	0.43
> 20kW and <= 50 kW (LT-II -b)	4.8	0.48	0.48	0.48	0.48
> 50 kW (LT -II -c)	5.05	0.51	0.51	0.51	0.51
<b>LT III - LT Industries below 20 kW Load</b>	4.5	0.45	0.45	0.45	0.45
<b>LT IV - LT Industries above 20 kW Load</b>	5.10	0.51	0.51	0.51	0.51
<b>LT IX - Agriculture</b>					
<b>LT VI - Street Light</b>	4.00	0.40	0.40	0.40	0.40
<b>LT VII - Temporary-Others (LT VII - b)</b>	11	1.10	1.10	1.10	1.10
<b>LT VII - Temporary-Religious (LT VII - a)</b>	2.00	0.20	0.20	0.20	0.20
<b>LT V - Advt &amp; Hoardings</b>	13.55	1.36	1.36	1.36	1.36
<b>LT VIII - Crematorium and Burial Grounds</b>					

<b>Consumer Category</b>	<b>E.nergy Charge</b>	<b>FAC cap</b>	<b>FAC applicable for Apr 2011</b>	<b>FAC applicable for May 2011</b>	<b>FAC applicable for June 2011</b>
<b>HT I - Industry</b>	5	0.50	0.50	0.50	0.50
<b>HT II - Commercial</b>	5.2	0.52	0.52	0.52	0.52
<b>HT III - Group Housing Society</b>	4.1	0.41	0.41	0.41	0.41
<b>HT IV - Temporary Supply</b>	9	0.90	0.90	0.90	0.90
<b>HT V - Railways</b>					
> 22/33 kV	4.95	0.50	0.50	0.50	0.50
> 100kV	4.80	0.48	0.48	0.48	0.48
<b>Total Recovery</b>					

Appendix-2.1

The normative parameters, are as under:

Sr.No.	Parameter	Unit	Normative Rate
			as per tariff order dated 8th Sept 2010
1	<b>Heat Rate</b>		
	Unit # 4	kCal/KWh	2683
	Unit # 5	kCal/KWh	2577
	Unit # 6	kCal/KWh	2514
	Unit # 7	kCal/KWh	1971
2	<b>Auxiliary Consumption</b>		
	Hydro	%	
	Unit # 4	%	8
	Unit # 5	%	5.5
	Unit # 6	%	3.5
	Unit # 7	%	2.75
3	<b>Distribution Loss (TPC-D)</b>	%	0.66
4	<b>Transmission Loss</b>	%	4.85
5	<b>Weighted Average variable cost of power purchase</b>	Rs./KWh	3.3814