



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/TPC-D/20162017/ 1359

Date: 16 January, 2017

To,
The Managing Director,
Tata Power Company Ltd.,
Dharavi Receiving Station,
New Shalimar Industrial Estate
Matunga, Mumbai- 400 019

Subject: Prior approval of Fuel Adjustment Charge (FAC) submission of TPC-D for the month of October 2016.

Reference: 1. TPC-D's FAC submission vide email dated 11 January, 2017
2. TPC-D's FAC submission recalculated for Apr to Sep 2016 vide letter no. 12 dated 12 January, 2017.
3. TPC-D's FAC submission for month of Oct, 2016 vide letter no. 13 dated 12 January, 2017.

Sir,

Upon vetting the FAC calculations for the month of October 2016 as mentioned in the above reference, the Commission has accorded prior approval to TPC-D for charging FAC to its consumers as shown in the table below:

Month		Z _{FAC} Amount (Rs. Crore)
Standalone Z _{FAC} for October, 2016	a	(15.24)
Unrecovered part of recalculated FAC for the period of April to September, 2016*	b	21.76
Net Z_{FAC} allowed for October, 2016	c=a+b	6.52

*The Commission allowed TPC-D to adjust FAC of Rs. 21.76 crore (recalculated for the period of April to September, 2016 based on Tariff Order dated 21 October, 2016) in the month of October, 2016.

TPC-D is hereby allowed to charge/levy the above Z_{FAC} to its consumers in the billing month of January 2017.

Yours faithfully,

(Dr. Rajendra Ambekar)
Director (Tariff), MERC

Encl: Annexure A: Detailed Vetting Report for the month of October 2016.

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Cc as enclosed:

Names and Addresses of Institutional Consumer Representatives

Prayas Energy Group, Amrita Clinic, Athawale Corner, Lakdipool-Karve Road Junction, Deccan Gymkhana, Karve Road, Pune 411 004	The President, Mumbai GrahakPanchayat, GrahakBhavan, SantDynyanshwarMarg, 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 400 701	The President, Vidarbha Industries Association, 1 st floor, UdyogBhawan, Civil Lines, Nagpur 440 001
Maharashtra Chamber of Commerce, Industry & Agriculture, Oricon House, 6 th Floor, 12k. DubashMarg, Fort, Mumbai- 400001 (Nashik Branch) Email: maccia.nsk@gmail.com	Chamber of Marathwada Industries and Agriculture, Bajaj Bhavan, P-2, MIDC Area, Station Road, Aurangabad – 431 005



PRIOR APPROVAL FOR FAC FOR THE MONTH OF OCTOBER 2016

Subject: Prior approval of Fuel Adjustment Charge (FAC) submission for TPC-D for the month of October 2016.

Reference: 1. TPC-D's FAC submission vide email dated 11 January, 2017
2. TPC-D's FAC submission recalculated for Apr to Sep 2016 vide letter no. 12 dated 12 January, 2017.
3. TPC-D's FAC submission for month of Oct, 2016 vide letter no. 13 dated 12 January, 2017.

1. FAC submission by TPC-D:

1.1 TPC-D has submitted FAC submissions for the month of October 2016 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by TPC-D, the Commission has accorded prior approval for the FAC amount of October, 2016 to be charged in the billing month of January 2017.

2. Background

2.1 On 21 October, 2016, the Commission has issued Tariff Order for TPC-D, (Case No. 47 of 2016) for approval of True-up of FY 2014-15, provisional Truing-up for FY 2015-16, and Aggregate Revenue Requirement and Tariff for FY 2016-17 to FY 2019-20. Revised Tariff has been made applicable from 1 October, 2016.

2.2 In this Tariff Order, the Commission has stipulated methodology of levying FAC as follows:

"1. Fuel Adjustment Cost will be applicable to all consumers and will be charged over the above tariffs, on the basis of the FAC formula specified by the Commission, and computed on a monthly basis. The FAC for the month of October, 2016 shall be levied after prior approval of the Commission, in accordance with the first proviso to Regulation 10.2 of the MYT Regulations, 2015."

2.3 Vide its letter dated 15 November, 2016, the Commission communicated the excel formats for filing of FAC submissions to all Distribution Licensees. The Commission also directed all Distribution Licensees to submit FAC computations, including details pertaining to variation in fuel cost of generators for the approval of the Commission.



2.4 Accordingly, vide its letter dated 12 January, 2017 TPC-D has filed FAC submission for the month of October, 2016 for prior approval. The Commission has scrutinized the submissions provided by TPC-D and has also verified the fuel and power purchase bills provided along with its submissions.

3. Energy Sales of the Licensee

3.1 The net energy sales within licence area as submitted by TPC-D in the FAC submission and as approved by the Commission are as shown in the table below.

Consumer Category	Approved by the Commission (MU)	Approved (MU)	Actual (Oct- 16) (MU)
	(I)	(II=I/4)	(III)
LT Category			
LT I(B) - Residential (BPL)	0.02	0.01	0.00
LT I(A) – Residential	2030.6	507.65	145.94
LT II(A) - Commercial upto 20 kW	268.31	67.08	18.02
LT II(B) - Commercial 20 to 50 kW	84.51	21.13	6.58
LT II(C) - Commercial > 50 kW	356.54	89.14	27.82
LT III(A) - Industrial upto 20 kW	69.46	17.37	5.64
LT III(B) - Industrial > 20 kW	207.31	51.83	16.01
LT V - Advertisement & Hoardings	0.05	0.01	0.00
LT VI – Streetlights	0.57	0.14	0.07
LT VII(A) - Temporary Religious	0.08	0.02	0.00
LT VII(B) - Temporary Others	19.94	4.99	1.90
LT VIII - Crematoriums & Burial Gr.	0.33	0.08	0.03
LT IX(A) - Public Service Govt Hosp. & Educational Institutions	0.15	0.04	0.11
LT IX(B) - Public Services Others	14.76	3.69	1.68
HT Category		0.00	
HT I – Industry	859.39	214.85	81.18
HT II – Commercial	610.51	152.63	45.18
HT III - Group Housing Society (Resi)	3.56	0.89	0.32
HT IV - PWW & Sewage Treatment Plants	67.76	16.94	6.36
HT V(A) - Railways 22/33 kV	156.55	39.14	5.40
HT V(B) - Railways Metro & Monorail	6.19	1.55	0.62
HT VI(A) - Public Service Govt Hosp. & Educational Institutions	45.32	11.33	0.92
HT VI(B) - Public Services Others	139	34.75	7.40
HT VII - Temporary Supply	9.28	2.32	1.02
Total	4950.19	1237.55	372.20

*For the purpose of computing FAC for the month of October 2016, energy sales have been considered with 15 days adjustment.



4. Cost of Power Purchase

4.1 TPC-D purchases majority of its power from TPC-G. Further, TPC-D also procures power from other sources in order to fulfil the demand of its consumers. The following are the list of sources from which TPC-D procures power to meet its demand.

- a) Purchases from Tata Power Company Ltd. (TPC-G)
- b) Renewable energy procurement(RPS)
- c) Bilateral contracts and decrements to the imbalance pool.
- d) Unscheduled Interchanges (Interstate UI)

4.2 The following table shows the variation in average power purchase cost (Rs/kWh) for the month of October, 2016 as compared to average power purchase cost approved in Tariff Order dated 21 October, 2016:

Particulars	Tariff Order Dated 21.10.2016			Actual for October, 2016		
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
TPC-G	3644.80	1529.32	4.20	346.67	134.49	3.88
RE Sources	369.61	233.57	6.32	17.70	10.51	5.94
Bilateral	1163.27	364.32	3.13	5.88	1.59	2.70
Other	-	-		20.60	(1.25)	(0.61)
Total	5177.68	2127.21	4.11	390.86	145.34	3.72

4.3 The Commission allows the average power purchase cost of Rs. 3.72/kWh for the month of October 2016 as shown in the table above.

5. FAC on account of fuel and power purchase cost (F)

5.1 The Commission has worked out the average power purchase cost for the month as shown in above table. The same has been compared with the average power purchase cost approved by the Commission in Tariff Order dated 21 October 2016 and arrived at differential per unit rate at which Z_{FAC} is to be passed on to the consumers.

5.2 The following table shows the Z_{FAC} worked out by the Commission on account of difference in fuel and power purchase cost for the month of October, 2016:



S. No.	Particulars	Units	Amount
1	Average power purchase cost approved by the Commission	Rs./kWh	4.11
2	Actual average power purchase cost	Rs./kWh	3.72
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.39)
4	Net Power Purchase	MU	390.86
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	(15.24)

6. Adjustment for over recovery/under recovery (B)

6.1 The Commission is in the process of providing prior approval of FAC for the first month after issuance of Tariff Order and hence there would not be any adjustment factor for previous months that is to be considered while computing the allowable FAC.

7. Carrying Cost for over recovery/under recovery (B)

7.1 As explained in the above paragraph in absence of any adjustment factor for previous month, there is no carrying cost which is to be allowed in FAC for the month of October 2016.

8. Disallowance due to excess Distribution Loss

8.1 Regulation 10.8 of MYT Regulations, 2015 provides for FAC amount to be reduced in case the actual distribution loss for the month exceeds the approved distribution loss. The relevant extract is reproduced as follows.

“10.8 The total Z_{FAC} recoverable as per the formula specified above shall be recovered from the actual sales in terms of “Rupees per kilowatt-hour”:

Provided that, in case of unmetered consumers, the Z_{FAC} shall be recoverable based on estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

Provided further that, where the actual distribution losses of the Distribution Licensee exceed the level approved by the Commission, the amount of Z_{FAC} corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total Z_{FAC} recoverable”

8.2 The following table provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss in any



S. No.	Particulars	Units	Approved in Tariff Order	Actual up to Oct-16
1	Energy Requirement for TPC-D Consumers at T\leftrightarrowD interface	MU	2403.60	1511.27
2	TPC-D Retail Sales (excluding sales at 110/132 kV level)	MU	2379.08	1490.91
3	Distribution Loss (1 - 2)	MU	24.52	20.37
4	Distribution Loss as % of net energy input (3/1)	%	1.02%	1.35%
5	Excess Distribution Loss =[Actual Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	4.95
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-

8.3 As seen from the above table, cumulative Distribution Loss up to the month of October 2016 is 1.35% which is higher than the approved Distribution Loss of 1.02%. The Commission however has not worked out any disallowance on account of excess distribution loss since the standalone FAC for month of October, 2016 is negative.

9. Recalculation of FAC for the period April to September 2016:

9.1 In its vetting report dated 9 January, 2017 for the month of July to September, 2016, the Commission has directed TPC-D as follows:

“Since, FAC for the period of April 2016 to September 2016 has been calculated based on the power purchase cost approved for FY 2015-16 in the prevailing Tariff Order dated 26 June, 2015, TPC-D is directed to recalculate FAC for this period after considering the power purchase cost approved for FY 2016-17 in Tariff Order dated 21 October, 2016 in Case No. 47 of 2016. TPC-D shall adjust the resultant FAC amount which remains to be recovered / refunded in next FAC billing process.”

9.2 In compliance of above, TPC-D vide email dated 12 January, 2017 submitted recomputed FAC for the month of April to September, 2016 after comparing actual power purchase expenses with approved expenses for FY 2016-17 in Tariff Order dated 21 October, 2016. As per this submission FAC of Rs 10.77 crore is yet to be recovered from the consumers for this period.

9.3 The Commission has scrutinised submission of TPC-D and found that FAC of Rs 21.76 crore is yet to be recovered from the consumers for the period of April to September,



2016. The Commissions allows TPC-D to adjust this unrecovered amount of Rs 21.76 crore in the FAC for the month of October, 2016.

9.4 Accordingly, the Commission has considered Rs. 21.76 Crore to be adjusted in FAC of October 2016.

10. Summary of Allowable Z_{FAC}

10.1 The summary of the FAC amount as approved by the Commission for the month of October 2016 which is allowed to be recovered in the billing month of January is as shown in the Table below.

S. No.	Particulars	Units	Oct-16
1.0	Calculation of Z_{FAC}		
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	(15.24)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.00
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	0.00
1.4	$Z_{FAC} = F+C+B$	Rs. Crore	(15.24)
1.5	Recalculated net FAC amount for April to Sept-2016	Rs. Crore	21.76
1.6	Net Z_{FAC} for month of October, 2016	Rs. Crore	6.52
2.0	Calculation of Z_{FAC} Charge		
2.1	Energy Sales within the License Area	MU	374.18
2.2	Excess Distribution Loss	MU	4.95
2.3	Z_{FAC} per kWh	Rs./kWh	0.17
3.0	Recovery of Z_{FAC}		
3.1	Allowable Z_{FAC}	Rs. Crore	6.52
3.2	FAC disallowed corresponding to excess Distribution Loss	Rs. Crore	-
4.0	Total Z_{FAC} based on category wise and slab wise allowed to be recovered	Rs. Crore	6.52

11. Recovery from Consumers:

11.1 Regulation 10.9 of MERC MYT Regulations, 2015 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

"10.9 The Z_{FAC} per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula:—



$Z_{FAC\ Cat} (Rs/kWh) = [Z_{FAC} / (Metered\ sales + Unmetered\ consumption\ estimates + Excess\ distribution\ losses)] * k * 10,$

Where:

$Z_{FAC\ Cat}$ = Z_{FAC} component for a particular Tariff category/sub-category/consumption slab in 'Rupees per kWh' terms;

k = Average Billing Rate / ACOS;

Average Billing Rate = Average Billing Rate for a particular Tariff category/sub-category/ consumption slab under consideration in 'Rupees per kWh' as approved by the Commission in the Tariff Order:

Provided that the Average Billing Rate for the unmetered consumers shall be based on the estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

ACOS = Average Cost of Supply in 'Rupees per kWh' as approved for recovery by the Commission in the Tariff Order:

Provided that the monthly Z_{FAC} shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:

Provided further that any under-recovery in the Z_{FAC} on account of such ceiling shall be carried forward and shall be recovered by the Distribution Licensee over such future period as may be directed by the Commission....”

- 11.2 The Commission has worked out FAC per unit for each category of consumer based on the formula provided in the above Regulations. The Commission observed that there is an under recovery of Z_{FAC} in absolute terms on considering category wise per unit FAC worked out and category wise actual sales for the month of October 2016.
- 11.3 The variation in FAC in absolute terms is due to formula error of Z_{FAC} computed on per unit basis. The variation however is taken care in the adjustment factor of subsequent months
- 11.4 The following table shows per unit Z_{FAC} to be charged to the consumers of TPC-D for the billing month of January 2017.



S.No.	Consumer Category	Slabs	Z _{FAC} to be levied in billing month of January, 2017 (Rs/kWh)
(A)	LT Category		
1	LT 1 – BPL		0.05
2	LT 1 - Residential S1	0 – 100	0.03
3	LT 1 - Residential S2	101 - 300	0.09
4	LT 1 - Residential S3	301 - 500	0.18
5	LT 1 - Residential S4	> 500	0.24
6	LT II Commercial (A)	0 - 20 kW	0.20
7	LT II Commercial (B)	20 – 50 kW	0.22
8	LT II Commercial (C)	> 50 kW	0.24
9	LT III (A) - LT Industries below 20 kW Load	0 - 20 kW	0.19
10	LT III (B) - LT Industries above 20 kW Load	> 20 kW	0.22
11	LT IV - Public Water Works*	all units	0.00
12	LT V - Advt & Hoardings	all units	0.35
13	LT VI - Street Lights	all units	0.20
14	LT VII (A) - Temporary Supply -Religious	all units	0.15
15	LT VII (B) - Temporary Supply -Others	all units	0.26
16	LT VIII - Crematorium and Burial Grounds	all units	0.09
17	LT IX (A) - Public Service – Govt. Hospitals & Educational Institutes	all units	0.20
18	LT IX (B) - Public Service – Others	all units	0.24
19	LT X - Agriculture (A) Pumpsets*	all units	0.00
20	LT X - Agriculture (B) Others *	all units	0.00
(B)	HT Category		
18	HT - I Industry	all units	0.23
19	HT - II Commercial	all units	0.25
20	HT - III Group Housing Society (Residential)	all units	0.16
21	HT - IV Public Water Works	all units	0.20
22	HT-V Railways, Metro & Monorail	all units	0.21
23	HT-VI (A) Public Service – Govt. Hospitals & Educational Institutes	all units	0.20
24	HT-VI (B) Public Service-Others	all units	0.24
25	HT-VII Temporary Supply	all units	0.25

*There are no consumers under this category. FAC can be calculated once ABR based on actual sales is available.

