



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/BEST/20162017/01287

Date: 4 January, 2017

To,
The General Manager,
The Brihanmumbai Electric Supply and Transport Undertaking,
BEST Bhavan, BEST Marg,
Post Box No. 192, Mumbai 400 001

Subject: Prior approval of Fuel Adjustment Charge (FAC) submission of BEST Undertaking for the month of October 2016.

Reference: BEST Undertaking's FAC submission for month of Oct, 2016 vide letter no. 178 dated 22 December, 2016.

Sir,


Upon vetting the FAC calculations for the month of October 2016 as mentioned in the above reference, the Commission has accorded prior approval 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	(8.28)
1 st Instalment of unrecovered part of recalculated FAC for the period of April to September, 2016*	b	38.66
Net Z_{FAC} allowed for October, 2016	c=a+b	30.38

**The Commission allowed BEST Undertaking to levy unrecovered FAC of Rs. 113.94 crore (recalculated for the period of April to September, 2016 based on Tariff Order dated 28 October, 2016) in three equal instalment starting from October, 2016 along with carrying cost.*

BEST Undertaking 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.

Page 1 of 10

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, SantDyanyaneshwarMarg, 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 BEST Undertaking for the month of October 2016.

Reference: BEST's FAC submission for month of Oct, 2016 vide letter no. 178 dated 22 December, 2016.

1. FAC submission by BEST Undertaking:

1.1 BEST Undertaking 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 BEST Undertaking, 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 28 October, 2016, the Commission has issued Tariff Order for BEST Undertaking, (Case No. 33 of 2016) for truing-up of Aggregate Revenue Requirement (ARR) for FY 2012-13 to FY 2014-15, provisional truing-up of FY 2015-16 and ARR and Tariff for FY 2016-17 and 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 (FAC) will be applicable to all consumers and will be charged over and above the base 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 22 December, 2016 BEST Undertaking has filed FAC submission for the month of October, 2016 for prior approval. The Commission has scrutinized the submissions provided by BEST Undertaking 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 BEST Undertaking 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 (A) Residential-BPL	0.24	0.06	0.01
LT - I (B) Residential	1,974.48	493.62	157.10
LT - II (A) Commercial	909.57	227.39	72.20
LT - II (B) Commercial	226.20	56.55	17.52
LT - II (C) Commercial	408.10	102.03	30.24
LT - III (A) Industrial	43.23	10.81	3.72
LT - III (B) Industrial	99.50	24.88	7.71
LT - IV PWW	1.81	0.45	0.54
LT - V Adv & Hoardings	1.76	0.44	0.15
LT - VI St. Lighting	28.10	7.03	2.54
LT - VII (A) Temp-Religious	2.69	0.67	0.21
LT - VII (B) Temp-Others	41.73	10.43	3.38
LT - VIII Crematorium	1.32	0.33	0.13
LT - IX (A) Public Service	33.30	8.33	5.03
LT - IX (B) Public Service Others	160.01	40.00	10.32
HT Category			
HT - I Industry	179.98	45.00	11.56
HT - II Commercial	344.87	86.22	25.07
HT - III Grp. Housing (Residential)	32.08	8.02	2.69
HT - IV PWW	30.71	7.68	3.11
HT-V Railways, Metro & Monorail	-	-	0.21
HT-VI (A) Public Service	11.29	2.82	2.14
HT-VI (B) Public Service-Others	129.13	32.28	13.06
HT-VII Temporary Supply	7.80	1.95	0.76
Total Energy Sale	4,667.90	1,166.98	369.41



4. Cost of Power Purchase

4.1 BEST Undertaking does not own or operate any generating stations. Accordingly, BEST Undertaking is required to procure power from outside sources in order to fulfil the demand of its consumers. The following are the list of sources from which BEST Undertaking 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 28 October, 2016:

Particulars	Tariff Order Dated 28.10.2016			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	3819	1599	4.19	328	126	3.84
RE Sources	174	197	11.32	21	20	9.32
Bilateral	1169	412	3.52	69	22	3.14
Other				45	22	4.99
Total	5163	2207	4.28	464	190	4.10

4.3 The Commission allows the average power purchase cost of Rs. 4.10/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 28 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	4.28
2	Actual average power purchase cost	Rs./kWh	4.10
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.18)
4	Net Power Purchase	MU	463.65
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	(8.28)

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 if any.



S. No.	Particulars	Units	Approved in Tariff Order	Actual up to Oct-16
1	Net Energy input at Distribution Voltages	MU	4,960.57	2,905.69
2	Energy sales at Distribution voltages	MU	4,667.90	2,726.82
3	Distribution Loss (1 - 2)	MU	292.67	178.86
4	Distribution Loss as % of net energy input (3/1)	%	5.90%	6.16%
5	Excess Distribution Loss =[Actual Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	1.02
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 6.16% which is higher than the approved Distribution Loss of 5.90%. The Commission however has not worked out any disallowance on account of excess distribution loss since the FAC for month of October, 2016 is negative.

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

9.1 In its vetting report dated 28 December, 2016 for the month of July to September, 2016, the Commission has directed BEST Undertaking 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 28 August, 2013, BEST is directed to recalculate FAC for this period after considering the power purchase cost approved for FY 2016-17 in Tariff Order dated 28 October, 2016. BEST shall adjust the resultant FAC amount which remains to be recovered / refunded in next FAC billing process.”

9.2 In compliance of above, BEST Undertaking vide email dated 30 December, 2016 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 28 October, 2016. As per this submission FAC of Rs 113.94 crore is yet to be recovered from the consumers for this period. BEST has proposed to recover this amount in three equal instalments with carrying cost.

9.3 The Commission has scrutinised submission of BEST and found that FAC of Rs 113.94 crore is yet to be recovered from the consumers for the period of April to September,



2016. Allowing recovery of such amount in a month will adversely impact the consumers. Hence, the Commissions allows BEST Undertaking to levy Rs 113.94 crore to its consumers in three equal instalments with carrying cost.

- 9.4 The Commission has considered Rs. 37.98 Crore (1/3rd) of the total amount to be adjusted in FAC of October 2016 along with carrying cost of Rs. 0.68 crore totalling to Rs. 38.66 crore.

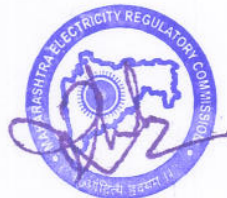
10. Summary of Allowable Z_{FAC}

- 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	(8.28)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	-
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	-
1.4	$Z_{FAC} = F+C+B$	Rs. Crore	(8.28)
1.5	1 st instalments of recalculated net FAC amount of Rs. 113.94 crore for April to Sept-2016 (with Carrying cost)	Rs. Crore	38.66
1.6	Net Z_{FAC} for month of October, 2016	Rs. Crore	30.38
2.0	Calculation of Z_{FAC} Charge		
2.1	Energy Sales within the License Area	MU	369.41
2.2	Excess Distribution Loss	MU	-
2.3	Z_{FAC} per kWh	Rs./kWh	0.82
3.0	Recovery of Z_{FAC}		
3.1	Allowable Z_{FAC}	Rs. Crore	30.38
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	30.38

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:—

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

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 BEST Undertaking 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 - I (A) Residential-BPL	0 – 30	0.20
2	LT - I (B) Residential	0 – 100	0.34
		101 - 300	0.60
		301 - 500	0.84
		> 501	1.01
3	LT - II (A) Commercial	0 – 500	0.97
		> 500	1.02
4	LT - II (B) Commercial	all units	0.99
5	LT - II (C) Commercial	all units	1.04
6	LT - III (A) Industrial	0 – 500	0.87
		> 500	0.93
7	LT - III (B) Industrial	all units	0.87
8	LT - IV Public Water Works	all units	0.86
9	LT - V Advertisement & Hoardings	all units	1.43
10	LT - VI Streetlights	all units	0.85
11	LT - VII (A) Temporary Supply-Religious	all units	0.49
12	LT - VII (B) Temporary Supply-Others	all units	1.08
13	LT - VIII Crematorium	all units	0.58
14	LT - IX (A) Public Service – Govt. Hospital & Educational Institutes	all units	0.84
15	LT - IX (B) Public Service- Others	all units	0.91
16	LT – X (A) Agriculture – pumpsets	all units	*
17	LT – X (A) Agriculture – others	all units	*
(B)	HT Category		
18	HT - I Industry	all units	0.90
19	HT - II Commercial	all units	0.99
20	HT - III Group Housing Society (Residential)	all units	0.71
21	HT - IV Public Water Works	all units	0.85
22	HT-V Railways, Metro & Monorail	all units	0.74
23	HT-VI (A) Public Service – Govt. Hospitals & Educational Institutes	all units	0.84
24	HT-VI (B) Public Service-Others	all units	0.94
25	HT-VII Temporary Supply	all units	0.98

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

