



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/BEST/ 20162017/01253

Date: 28 December, 2016

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

Subject: Post Facto approval of BEST Undertaking's Fuel Adjustment Charges (FAC) for the period of July, 2016 to September, 2016

Reference: BEST's submissions vide letter dated 8 December, 2016 for post facto approval of FAC for the period from July, 2016 to September, 2016.


Sir,

Upon vetting the FAC calculations for the months of July, 2016 to September, 2016 submitted vide letter under reference, the Commission has accorded post facto approval to BEST for charging to its consumers the FAC amount (net of excess T&D loss), as detailed below:

Month	FAC allowed to be recovered / (Refunded) (Rs. Crore)
July 2016	(34.62)
August 2016	(32.03)
September 2016	(37.50)

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.

Yours faithfully,


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

Encl: Annexure: Detailed Vetting Report for the months of July, 2016 to September, 2016.

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



Post Facto approval of FAC Charges for the months of July, 2016 to September, 2016 submitted by BEST Undertaking

Subject: Post Facto approval of BEST Undertaking's Fuel Adjustment Charges (FAC) for the period of July, 2016 to September, 2016

Reference: BEST's submissions vide letter dated 8 December, 2016 for post facto approval of FAC for the period from July, 2016 to September, 2016.

1. FAC submission by BEST:

- 1.1 MERC (Multi Year Tariff) Regulations, 2015 becomes applicable for Tariff determination of 3rd Control Period of FY 2016-17 to FY 2019-20. However, Tariff Order under this MYT Regulations, 2015 applicable for FY 2016-17 has been issued only on 28 October, 2016 and made effective from 1 October, 2016. Therefore, for the period from July to September, 2016, Tariff Order dated 28 August, 2013 was applicable.
- 1.2 Accordingly, BEST Undertaking in its submission has computed the FAC for the months of July, 2016 to September, 2016 in accordance with the MYT Order dated 28 August, 2013 in Case No. 26 of 2013 for approval of Truing Up of the Aggregate Revenue Requirement for FY 2010-11 and FY 2011-12 and Multi Year Tariff for the second Control Period, i.e., FY 2012-13 to FY 2015-16.
- 1.3 In terms of the MERC (MYT) Regulations, 2011 a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for FAC charges. Accordingly, BEST Undertaking has submitted details of FAC chargeable from all consumers for second quarter of FY 2016-17, i.e., July, 2016 to September, 2016.

2. FAC Methodology

- 2.1 The methodology for arriving at FAC is as per MERC (MYT) Regulations, 2011 amended from time to time. The salient features for arriving at FAC for the above period are as under:
 - Actual Distribution losses have been computed based on metering arrangement.
 - Power purchase requirement for BEST Undertaking is considered from all sources of power usually purchased by the utility. The source include power from Tata Power



Company Ltd. (TPC-G), Renewable energy procurement (RPS), Bilateral contracts and decrements to the imbalance pool, Unscheduled Interchanges (Interstate UI)

- As submitted by BEST Undertaking, energy at the T\leftrightarrowD interface in the 'Energy Balance' tabulation of the FAC submission, is arrived at as follows:

BEST Undertaking's Requirement (MU)	Formula	Jul 2016	Aug 2016	Sep 2016
Energy sales at Distribution voltages	(i)	372.18	384.63	366.52
Distribution Loss	(ii)	21.93	18.71	19.75
Net Energy input at Distribution Voltages	(iii) = (i) + (ii)	394.11	403.34	386.28
Transmission Loss	(iv)	5.61	(6.85)	14.28
Gross Energy input at Transmission Voltages	(v) = (iii) + (iv)	399.72	396.49	400.55

2.2 Regarding wide variation in transmission loss, BEST Undertaking has clarified that such variation is on account of non-availability of UI bills of said period. It is submitted that in the months of July, August and September 2016, UI bills were not issued which reduces gross energy input for these months and hence low level of transmission losses (sometimes, negative losses) appears.

2.3 The energy requirement met through the purchase of power from different sources is as under:

Source of Purchase	Jul 2016	Aug 2016	Sep 2016
TPC-G	311.71	338.22	305.83
Renewable Energy based Generating Stations	19.20	17.63	16.35
Traders	59.29	36.11	55.18
Variation due to FBSM etc.	9.52	4.54	23.20
Grand Total	399.72	396.49	400.55

3. Variable Cost of Power Purchase of BEST Undertaking

3.1 BEST does not own or operate any generating stations. The entire power requirement for distribution to its consumers is procured by BEST through;

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

4. Change in Variable Cost of Power Purchase:



- 4.1 Change in variable cost of power purchase has been arrived at by multiplying power purchase (MU) with the change in weighted average cost (Rs/kWh) of power purchase.
- 4.2 The variable cost of power procurement approved by the Commission as per the MYT Order for the second Control Period (Case No. 26 of 2013 dated 28 August, 2013 for approval of Truing Up of the Aggregate Revenue Requirement for FY 2010-11 and FY 2011-12 and Multi Year Tariff for the second Control Period, i.e., FY 2012-13 to FY 2015-16), is Rs. 3.57/kWh. As explained in Tabulation below:

Source	Approved Annual Quantum (MU)	Variable Cost (Rs. Crore)	Rate Rs/kWh
TPC-G (Including Unit-8)*	5589.97	1847.91	3.31
RPS Power	589.19	339.93	5.77
Bilateral Purchase(as per SLDC)	223.06	98.32	4.41
Total Power Purchase	6402.22	2286.16	3.57

**Approved annual variable cost for purchases from TPC-G is derived by deducting the Approved annual Fixed cost Rs. 615.91 Crore and approved capacity charges for Hydro generating stations of Rs. 78.48 Crore from Total Annual cost Rs. 2542.30 Crore.*

- 4.3 BEST has submitted that it has incurred additional variable costs towards power procurement. The actual variable cost incurred by the BEST Undertaking for the Quarter-II of FY 2016-17 is as follows:

Sr. No	Parameter	Unit	Jul 2016	Aug 2016	Sep 2016
1	Weighted Average variable cost of power purchase considered by the Commission	Rs/kWh	3.57	3.57	3.57
2	Weighted Average Normative Actual variable cost power purchase for Month	Rs/kWh	2.75	2.80	2.68
3	Change in variable cost of power purchase	Rs/kWh	(0.82)	(0.77)	(0.89)
4	Net Power Purchase	MU	399.72	396.49	400.55
5	Change in variable cost of power purchase	Rs Crore	(32.94)	(30.71)	(35.71)

5. Adjustment for over recovery/ under recovery:

- 5.1 After adjustment for over-recovery/under recovery (B), the adjustment factor to be added / reduced is as below:



Month	Adjustment Factor (Rs. Crore)
July 2016	(1.66)
August 2016	(1.30)
September 2016	(1.77)

6. Carrying Cost/ Holding Cost for Under Recovery/ Over Recovery (“C”)

- 6.1 Carrying/ Holding cost for under/ over recovery has been granted at approved interest rate for the eligible amount viz. the difference between the normative actual variable cost of power procurement and approved cost of power procurement for the respective months. The following table shows the month wise interest rate and amount worked out as Carrying/ Holding cost for under/ over recovery for Quarter-II of FY 2016-17, i.e., for the months of July, 2016 to September, 2016.

Particulars	Jul 2016	Aug 2016	Sep 2016
Applicable Interest Rate	14.05	14.05	14.05
Carrying Cost/ (Holding Cost) for under/ over recovery (Rs. Crore)	(0.02)	(0.02)	(0.02)

7. Distribution Loss:

- 7.1 The Commission has considered allowable Distribution Loss at 6.50% for the months of July, 2016 to September, 2016. The actual cumulative Distribution Losses and the corresponding disallowances on account of excess distribution losses are shown in the Table below:

Month	Cumulative Distribution Losses (%)	Disallowances due to excess Distribution Loss (Rs. Crore)
July 2016	6.47%	0.00
August 2016	6.12%	0.00
September 2016	5.97%	0.00

- 7.2 As seen from the above Table, the cumulative distribution loss for the months of July, August and September, 2016 has been less than the approved distribution loss of 6.50%. Accordingly, no deduction has been made in FAC for these months.

8. Cap on Monthly FAC Charge



8.1 Applicability of Ceiling Limit of 20%

The relevant extract from the MERC (Multi Year Tariff) (Third Amendment) Regulations, 2014 is as below:

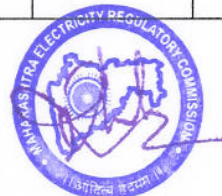
13.9 The formula for the calculation of the FAC component of Z-factor charges as given under:-

*.....
Provided that the monthly FAC charge 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.*

8.2 As per above Regulations, the ceiling based on 20% of the variable component of Tariff works out to Rs. 227.13 Paise/kWh.

9. The summary of FAC recoverable and carried forward for recovery in future is as follows:

Sr. No.	Parameter	Unit	Jul 16	Aug 16	Sep 16
1	Calculation of FAC (A)				
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	(32.94)	(30.71)	(35.71)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	(0.02)	(0.02)	(0.02)
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	(1.66)	(1.30)	(1.77)
1.4	FAC (A) = F + C + B	Rs. Crore	(34.62)	(32.03)	(37.50)
2	Calculation of FAC_{kWh}				
2.1	Sales within License Area	MU	372.18	384.63	366.52
2.2	Excess Distribution Loss	MU	0.00	0.00	0.00
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Rs./kWh	(0.93)	(0.83)	(1.02)
2.4	Cap on monthly FAC Charge	Rs./kWh	2.271	2.271	2.271
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Rs./kWh	(0.93)	(0.83)	(1.02)
3	FAC (A)				
3.1	FAC Charge to be recovered in August, 2016 to July 2016	Rs. Crore	(34.62)	(32.03)	(37.50)
3.2	FAC disallowed corresponding to excess Distribution Loss	Rs. Crore	-	-	-
3.3	Carried forward FAC for recovery during future period	Rs. Crore	0.00	0.00	0.00



10. Recovery of FAC:

- 10.1 At the end of September, 2016, FAC to be carried forward for next month is Nil.
- 10.2 The Commission approves the FAC computed for Quarter-II of FY 2016-17 as given in the Table above subject to Truing up of BEST Undertaking for FY 2016-17.
- 10.3 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.

11. Slab wise and Category wise FAC for the month of July 2016 to September 2016 to be recovered in billing month of August 2016 to October 2016:

Category	Slabs	FAC to be recovered in billing month (Rs/kWh)		
		August 2016	September 2016	October 2016
LT Category				
BPL	0-30	(0.09)	(0.09)	(0.11)
LT-I	1-100	(0.32)	(0.31)	(0.36)
	101-300	(0.67)	(0.64)	(0.75)
	301-500	(0.90)	(0.86)	(1.01)
	>501	(1.10)	(1.05)	(1.23)
LT-II(a)	0-500	(0.92)	(0.88)	(1.03)
	>500	(1.23)	(1.17)	(1.37)
LT-II(b)	all units	(1.14)	(1.09)	(1.27)
LT-II(c)	all units	(1.18)	(1.12)	(1.32)
LT-III	0-500	(0.81)	(0.77)	(0.90)
	>500	(1.07)	(1.02)	(1.20)
LT-IV(a)	all units	(1.00)	(0.95)	(1.11)
LT-IV(b)	all units	(0.97)	(0.92)	(1.08)
LT-V	all units	(1.70)	(1.62)	(1.90)
LT-VI	all units	(0.95)	(0.90)	(1.06)



Category	Slabs	FAC to be recovered in billing month (Rs/kWh)		
		August 2016	September 2016	October 2016
LT-VII(a)	all units	(0.50)	(0.48)	(0.56)
LT-VII(b)	all units	(1.32)	(1.26)	(1.48)
LT-VIII	all units	(0.51)	(0.48)	(0.56)
LT-IX(a)	all units	(0.97)	(0.92)	(1.08)
LT-IX(b)	all units	(1.00)	(0.95)	(1.12)
HT Category				
HT -I	all units	(0.95)	(0.90)	(1.06)
HT -II	all units	(1.02)	(0.97)	(1.14)
HT -III	all units	(0.69)	(0.66)	(0.77)
HT -IV	all units	(1.24)	(1.18)	(1.39)
HT-V	all units	(0.93)	(0.89)	(1.04)

** Category wise levy shown in the billing month of October is calculated on the consumption of September and does not represent category wise FAC levy for the month of October. The category wise FAC to be levied for the variation in power purchase cost in the month of October will be decided through prior approval in accordance with the MERC MYT Regulations, 2015.*

