



सत्यमेव जयते

# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission



Ref. No. MERC/FAC/20172018/ 029

Date: 25 January, 2019

To,  
**The Gigaplex Estate Private Ltd.,**  
K Raheja Corp, Level-9, Raheja Tower  
Block 'G', Plot No. C-30,  
Bandra Kurla Office  
Bandra (E), Mumbai – 400 051

**Subject:** Post facto approval of Fuel Adjustment Charges (FAC) submissions of GEPL for the month of July, 2018 to September, 2018.

**Reference:** GEPL's FAC submission for the month of July, 2018 to September, 2018 vide letter no. GEPL/Power/2018-19/G623 dated 14 November, 2018.

Sir,

Upon vetting the FAC calculations for the months of July, 2018 to September, 2018 as mentioned in the above reference, the Commission has accorded post facto approval for charging FAC to its consumers as shown in the table below:

Month	FAC Amount (Rs. Crore)
July, 2018	(0.25)
August, 2018	(0.35)
September, 2018	(0.36)

GEPL is directed to refund Rs. (0.99) Crore as over recovery for the period of July, 2018 to September, 2018 along with interest to the consumers in next FAC billing cycle. This is on account of error as explained in para 4.4, 6.2 and 9.4 of this vetting report.

The above approval of FAC is subject to final true up of FY 2018-19 under the MERC (Multi Year Tariff) Regulations, 2015.

Yours faithfully,

(Dr. Rajendra Ambekar)  
Executive Director, MERC

**Encl:** Annexure A: Detailed Vetting Report for the period of July, 2018 to September, 2018.

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**ANNEXURE**

**Detailed Vetting Report  
Date: 25 January, 2019**

**POST FACTO APPROVAL FOR FACCHARGES FOR THE MONTHS OF July, 2018  
TO September, 2018**

**Subject:** Post facto approval of Fuel Adjustment Charges (FAC) submissions of GEPL for the month of July, 2018 to September, 2018.

**Reference:** GEPL's FAC submission for the month of July, 2018 to September, 2018 vide letter no. GEPL/Power/2018-19/G623 dated 14 November, 2018.

**1. FAC submission by GEPL Undertaking:**

1.1 GEPL has made FAC submissions for the months of July, 2018 to September, 2018 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by GEPL, the Commission has accorded post facto approval for the FAC amount to be charged in the billing months of August, 2018 to October, 2018.

**2. Background**

2.1 On 12 March, 2018 the Commission has issued Tariff Order in respect of GEPL, (Case No.149 of 2016) for approval of Aggregate Revenue Requirement and Tariff for FY 2016-17 to FY 2019-20. Revised Tariff has been made applicable from 1 April, 2018.

2.2 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.

2.3 Vide FAC vetting Report dated 2 July, 2018 the Commission accorded prior approval to the FAC for the month of April, 2018.

2.4 In terms of MERC (MYT) Regulations, 2015 a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for FAC charges. Accordingly, vide its letter dated GEPL/Power/2018-19/G623 dated 14 November, 2018, GEPL has filed FAC submissions for the months of July, 2018 to September, 2018 for post facto approval. The Commission has scrutinized the submissions provided by GEPL 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 GEPL in the FAC submission and as approved by the Commission are as shown in the Table below:

Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales		
			(Jul-18) (MU)	(Aug-18) (MU)	(Sep-18) (MU)
	(I)	(II=I/4)	(III)	(IV)	(V)
<b>HT Category</b>					
HT- I Industrial	43.43	3.62	1.90	2.04	1.94
HT-II Commercial	1.96	0.16	0.10	0.06	0.05
<b>LT Category</b>					
LT-I General Purpose	-	-	-	-	-
LT-II(A) Commercial (0-20 kW)	0.04	0.00	0.05	0.05	0.05
LT-II (B) Commercial (above 20 kW)	0.16	0.01	0.01	0.01	0.01
LT-III (A) Industrial (0-20 kW)	0.31	0.03	0.00	0.00	0.00
LT-III (B) Industrial (above 20 kW)	5.36	0.45	0.20	0.23	0.22
<b>Total</b>	<b>51.25</b>	<b>4.27</b>	<b>2.27</b>	<b>2.39</b>	<b>2.27</b>

3.2 It can be observed from above Table that the actual sales during the months of July, August and September, 2018 is 2.27 MUs, 2.39 MUs and 2.27 MUs respectively, which is around 45% to 50% lower than the approved energy sales per month, i.e., 4.27 MUs. The major variation was observed in the HT-I Industrial and LT-III (B) Industrial categories as shown in the Table above.

### 4. Cost of Power Purchase

4.1 GEPL is a deemed Distribution Licensee notified by the Commission for IT& ITES SEZ located at Airoli, Thane. GEPL does not own or operate any generating stations. Accordingly, GEPL is required to procure power from outside sources in order to fulfil the demand of its consumers.

4.2 GEPL has so far been procuring Power through Competitive Bidding on Short-term basis, and has received the Commission's approval for the power procured till date. The Short-term Power Purchase Agreement (APP) was with GMR Energy Trading Limited (GMRETL) which is valid for the period from 1 April, 2018 to 30 September, 2018. The following Tables show the variation in average power purchase cost (Rs/kWh) for the months of July, 2018 to September, 2018 as compared to average power purchase cost approved in Tariff Order dated 12 March, 2018:



Particulars	Tariff Order Dated 12 March, 2018			Actual for July, 2018		
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
Short Term PPA	54.08	23.69	4.38	2.32	1.02	4.38
FBSM	-	-	-	0	0	0
Solar REC	-	0.15	NA	0	0	0
Non Solar REC	-	0.59	NA	0	0	0
<b>Total</b>	<b>54.08</b>	<b>24.43</b>	<b>4.52</b>	<b>2.32</b>	<b>1.02</b>	<b>4.38</b>

Particulars	Actual for August, 2018			Actual for September, 2018		
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
Short Term PPA	2.44	1.07	4.38	2.40	1.05	4.38
Solar REC	0.05	0.005	1.00	0.05	0.005	1.00
Non Solar REC	0.19	0.021	1.10	0	0	0
<b>Total</b>	<b>2.44</b>	<b>1.09</b>	<b>4.49</b>	<b>2.40</b>	<b>1.05</b>	<b>4.40</b>

- 4.3 The Commission has scrutinised the detailed bills/invoices submitted for power purchase during the respective months of July to September, 2018, in order to verify the claim of MBPPL regarding Average Power Purchase Cost (APPC). The Commission has verified the Net Purchase (MUs), Variable Cost (Rs./kWh) and Power Purchase Cost.
- 4.4 During the scrutiny it was observed that, in the month of September GEPL has added the Solar REC quantum for computing the total net quantum purchased during the respective month. However, with regards to REC purchase only cost associated with it needs to be added in total power purchase cost while the quantum associated are excluded. The Commission has rectified the above error and accordingly computed the net quantum for the aforesaid month.
- 4.5 Further, the Commission in its MYT Order (Case no. 149 of 2016) dated 12 March, 2018 had approved the power purchase rate as Rs. 4.38/kWh (excluding Transmission charges) for both short and medium-term power procurement for FY 2018-19. It is to be noted that at the time of issuance of MYT Order, GEPL had short term PPA with MSEDCL for the contract period of 6 Months from 1 October, 2017 to 31 March, 2018. Since, the short term PPA was ending on 31 March, 2018 and in absence of MYT Order (Case no. 149 of



2016) at that time, GEPL had initiated procurement of 5 MW Round-the-Clock (RTC) power at its periphery at 22kV at Rs. 4.38/kWh (excluding Transmission Charges), based on the rates discovered in short-term power procurement under the Competitive Bidding Guidelines, for the period from April to September, 2018. Hence, based on the above and in the absence of any other suitable benchmark, the Commission had considered this discovered rate in its MYT Order for FY 2018-19.

- 4.6 GEPL has purchased 2.32 MUs, 2.44 MUs and 2.40 MUs from GMRETL during the month of July, August and September, 2018 respectively and the average power purchase cost during the months of July to September, 2018 is Rs. 4.38/kWh which is same as that of MYT approved rate as shown in Table above. GEPL has also purchased 49 Solar REC at a clearing price of Rs.1000/Certificate during the months of August and September, 2018 and 193 Non-Solar REC mainly during the month of August, 2018 in order to fulfil its RPO Obligation. The Commission has verified the respective purchases from the Obligation report submitted by GEPL issued by power exchange and found to be in order.
- 4.7 The APPC for the month of July is Rs. 4.38/kWh which is lower against the MYT approved rate of Rs. 4.52/kWh as shown in Table above. It can be seen that the monthly quantum of power purchase during the month July is around 51% (i.e., 2.32 MUs) of the monthly quantum approved by the Commission in the MYT Order. Further, no RECs have been procured during the aforesaid month. Therefore, the APPC during the month of July is lower as compared to MYT approved rate.
- 4.8 In the month of August although, GEPL has purchased Solar as well as Non-Solar REC but the said purchase (i.e., Rs. 2.6 Lakh) is marginally lower as compared to monthly approved MYT expenditure (i.e., Rs 6.17 lakh taken together for Solar & Non-solar REC). Therefore, the APPC for the month of August has been worked at Rs. 4.49/kWh which is lower as compared to MYT approved rate of Rs. 4.52/kWh.
- 4.9 Further, during the month of September the APPC has been derived at Rs. 4.40/kWh which is also lower as compared to MYT approved rate of Rs. 4.52/kWh as lower purchase of REC has resulted into lowering of total power purchase cost thus lowering the APPC.
- 4.10 After complete scrutiny of documents submitted, the Commission allows the average power purchase cost of Rs.4.38/kWh for the month of July, 2018, Rs. 4.49/kWh for the month of August, 2018 and Rs. 4.40/kWh for the month of September, 2018 as shown in Table above.

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

- 5.1 The Commission has worked out the average power purchase costs for the months as shown in above Tables. The same has been compared with the average power purchase cost approved by the Commission in Tariff Order dated 12 March, 2018 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 months of July, 2018 to September, 2018.

S. No.	Particulars	Units	Jul 2018	Aug 2018	Sep 2018
1	Average power purchase cost approved by the Commission	Rs./kWh	4.52	4.52	4.52
2	Actual average power purchase cost	Rs./kWh	4.38	4.49	4.40
3	Change in average power purchase cost (=2 - 1)	Rs./kWh	(0.14)	(0.03)	(0.12)
4	Net Power Purchase	MU	2.32	2.44	2.40
5	<b>Change in fuel and power purchase cost (=3 x 4/10)</b>	<b>Rs. Crore</b>	<b>(0.03)</b>	<b>(0.01)</b>	<b>(0.03)</b>

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

6.1 The adjustment factor for over recovery/under recovery (B) is as computed as shown in Table below.

S. No.	Particulars	Units	Jul 2018	Aug 2018	Sep 2018
1.1	Incremental cost allowed to be recovered in Month n-1	Rs. Crore	(0.02)*	(0.25)	(0.35)
1.2	Incremental cost in Month n-1 actually recovered in month n	Rs. Crore	0.20	0.09	(0.01)
1.3	Over-recovery/under-recovery (1.1 - 1.2)	Rs. Crore	(0.22)	(0.34)	(0.34)
2.0	Carried forward adjustment attributable to application of ceiling limit for previous month	Rs. Crore	-*	-	-
3.0	<b>Net Adjustment factor for over-recovery/under-recovery (1.3+2.0)</b>	<b>Rs. Crore</b>	<b>(0.22)</b>	<b>(0.34)</b>	<b>(0.34)</b>

\*Corrected as it was erroneously taken by GEPL in its computation

6.2 The Commission observed that the value of incremental cost allowed to be recovered has been erroneously taken as Rs. 0.18 Crore by GEPL as against the approved value of Rs. (0.02) Crore for the month of July, 2018. Further, the carried forward adjustment was observed to be taken by GEPL as Rs. 0.07 Crore whereas the Commission in its previous vetting report has not approved any carried forward adjustment. The Commission has



rectified the above anomalies and accordingly computed the net adjustment as shown in Table above.

6.3 The Commission has also verified the incremental cost actually recovered considered by GEPL during the respective months of Q2 of FY 2018-19 from the bill report generated through SAP system submitted by GEPL and found to be in order.

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

7.1 GEPL has not levied any carrying cost for the months of July, 2018 to September, 2018 and the Commission has also not considered the same.

**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 ZFAC 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 ZFAC 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 ZFAC corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total ZFAC 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 Cumulative up to		
				Jul-18	Aug-18	Sep-18
1	Net Energy input at Distribution Voltages	MU	51.96	9.21	11.64	13.96
2	Energy sales at Distribution voltages	MU	51.25	9.04	11.43	13.70
3	Distribution Loss (1 - 2)	MU	0.71	0.17	0.22	0.26
4	Distribution Loss as % (3/1)	%	1.37%	1.86%	1.86%	1.85%
5	Excess Distribution Loss = [Actual Distribution Loss (4) - Distribution loss approved]	MU	-	0.045	0.057	0.068





S. No.	Particulars	Units	Approved in Tariff Order	Actual Cumulative up to		
				Jul-18	Aug-18	Sep-18
	x Net Energy Input (1)					
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-	-	-

8.3 As seen from the above Table, cumulative distribution loss for the months of July, 2018 to September, 2018 is higher than the MYT approved distribution loss of 1.37%. The Commission has sought for reasoning for the higher distribution losses. In response to same query raised by the Commission in its previous vetting report, GEPL has stated that, the losses approved by Commission in MYT were the average of FY 2016-17. However, since March, 2017 the occupancy of buildings B#2 & B#3 has increased thereby increasing load losses of the system. Further, these are minimal technical losses of the network and are consistent.

8.4 The Commission observed that GEPL has worked out disallowance of FAC due to excess Distribution Loss based on the cumulative Distribution Loss corresponding to the standalone energy input at distribution voltage for the respective months. However, the Commission has recomputed the disallowance based on the cumulative Distribution Loss corresponding to the cumulative energy input at distribution voltage for the respective months since the excess distribution loss assessment needs to be done on cumulative basis. Further, the stand alone FAC for the month of July to September, 2018 is negative. Hence, disallowance on account of excess distribution loss has not been computed for the aforesaid months.

## 9. Summary of Allowable Z<sub>FAC</sub>

9.1 The summary of the FAC amount as approved by the Commission for the month of July, 2018 to September, 2018 as shown in the Table below.

S. No.	Particulars	Units	Jul 2018	Aug 2018	Sep 2018
1.0	<b>Calculation of ZFAC</b>				
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	(0.03)	(0.01)	(0.03)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	-	-	-
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	(0.22)	(0.34)	(0.34)
1.4	<b>ZFAC = F+C+B</b>	<b>Rs. Crore</b>	<b>(0.25)</b>	<b>(0.35)</b>	<b>(0.36)</b>
2.0	<b>Calculation of FAC Charge</b>				



S. No.	Particulars	Units	Jul 2018	Aug 2018	Sep 2018
2.1	Energy Sales within the License Area	MU	2.27	2.39	2.27
2.2	Excess Distribution Loss	MU	-	-	-
2.3	ZFAC per kWh	Rs./kWh	(1.10)	(1.45)	(1.60)
2.4	Cap at 20% of variable component of tariff	Rs./kWh	0.81	0.81	0.81
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	Rs./kWh	(1.10)	(1.45)	(1.60)
<b>3.0</b>	<b>Recovery of FAC</b>				
3.1	Allowable FAC [(2.1 x 2.5)/10]	Rs. Crore	(0.25)	(0.35)	(0.36)
3.2	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.5)/10]	Rs. Crore	-	-	-
<b>4.0</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered</b>	<b>Rs. Crore</b>	<b>(0.25)</b>	<b>(0.35)</b>	<b>(0.36)</b>
5.0	Carried forward FAC for recovery during future period (3.1-3.2-4.0)	Rs. Crore	-	-	-

9.2 It can be seen from the above Table that standalone FAC for the months of July to September, 2018 is Rs. (0.25) Crore, Rs. (0.35) Crore and Rs. (0.36) Crore respectively and accordingly, the total FAC for the Q2 of FY 2018-19 worked at Rs. (0.96) Crore. Based on energy sales and excess distribution loss, FAC per unit has been worked out as Rs. (1.10)/ kWh, Rs. (1.45)/ kWh and Rs. (1.60)/ kWh for the months of July to September, 2018. Further, the Regulation 10.9 of MYT Regulations, 2015 specifies as:

*Provided that the monthly ZFAC 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:*

9.3 As the FAC per unit computed is already lower than the 20% cap specified in Regulation as shown in Table above, hence, there is no restriction triggered with regards to such ceiling for all the months in Q2 of FY 2018-19.

9.4 Further, due to the error specified in para 6.2 above, GEPL has actually recovered total of Rs. 0.026 Crore during Q2 of FY 2018-19 as against a refund of Rs. (0.96) Crore as computed by the Commission shown in Table above. Therefore, the Commission directs GEPL to refund the differential amount of Rs. (0.99) Crore (i.e., Rs. (0.96) Crore minus Rs. 0.026 Crore) along with applicable interest rate in next billing cycle.

## 10. Recovery from Consumers:

10.1 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 ZFAC per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —"*



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

Where:

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

$k = \text{Average Billing Rate} / ACOS;$

*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:*

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

*Provided that the monthly ZFAC 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 ZFAC 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....”*

- 10.2 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 a variation of  $Z_{FAC}$  in absolute terms on considering category wise per unit FAC worked out and category wise actual sales for the months of July, 2018 to September, 2018.
- 10.3 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.
- 10.4 The following table shows per unit  $Z_{FAC}$  for the months of July, August and September, 2018 to be levied on consumers of GEPL for the billing month of August, 2018 to October, 2018.

**FAC for Billing Month of August, 2018 to October, 2018**

S. No	Consumer Category	Slabs	ZFAC computed for the month of
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			July, 2018 (Rs./kWh)	August, 2018 (Rs./kWh)	September, 2018 (Rs./kWh)
	<b>HT Category</b>				
1	HT- I Industrial	all units	0.38	(0.05)	(0.22)
2	HT-II Commercial	all units	0.38	(0.05)	(0.22)
	<b>LT Category</b>				
3	LT-I General Purpose	all units	0.38	(0.05)	(0.22)
4	LT-II(A) Commercial (0-20 kW)	all units	0.38	(0.05)	(0.22)
5	LT-II (B) Commercial (above 20 kW)	all units	0.38	(0.05)	(0.22)
6	LT-III (A) Industrial (0-20 kW)	all units	0.38	(0.05)	(0.22)
7	LT-III (B) Industrial (above 20 kW)	all units	0.38	(0.05)	(0.22)

