



# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/20172018/4226

Date: 22 September, 2017

To,  
**The Director**  
Reliance Infrastructure Limited,  
Devidas Lane, Off SVP Road,  
Near Devidas Telephone Exchange,  
Borivali (W), Mumbai 400 092

**Subject:** Post facto approval of RInfra-D's Fuel Adjustment Charges (FAC) for the period of April, 2017 to June, 2017.

**Reference:** RInfra-D's FAC submission vide letter dated 24 August, 2017 for post-facto approval of FAC for the period from April, 2017 to June, 2017

Sir,

Upon vetting the FAC calculations for the months of April, 2017 to June, 2017 as mentioned in the above reference, the Commission has accorded post facto approval to RInfra-D undertaking for charging FAC to its consumers as shown in the table below:


Month		April 2017	May 2017	June 2017
Standalone FAC (Rs. Crore)	A	(7.56)	(2.67)	(19.62)
6 <sup>th</sup> Instalment of unrecovered part of recalculated FAC for the period of April to September, 2016* (Rs. Crore)	B	(28.53)	-	-
Net FAC allowed for recovery (Rs. Crore)	C=A+B	<b>(36.09)</b>	<b>(2.67)</b>	<b>(19.62)</b>

\*Allowed vide FAC Vetting Report dated 13 January, 2017.

The above approval of FAC is subject to final True up of FY 2017-18 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 April, 2017 to June, 2017.

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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 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, 1st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.
Maharashtra Chamber of Commerce, Industry & Agriculture, Oricon House, 6th Floor, 12 K. Dubash Marg, Fort, Mumbai- 400 001, (Nashik Branch) E-mail: <a href="mailto:maccia.nsk@gmail.com">maccia.nsk@gmail.com</a>	Chamber of Marathwada Industries and Agriculture, Bajaj Bhavan, P-2, MIDC Area, Station Road, Aurangabad - 431 005



**POST FACTO APPROVAL FOR FAC CHARGES FOR THE MONTHS OF APRIL,  
2017 TO JUNE, 2017**

**Subject:** Post facto approval of RInfra-D's Fuel Adjustment Charges (FAC) for the period of April, 2017 to June, 2017.

**Reference:** 1. RInfra-D's FAC submission vide letter dated 24 August 2017 for post-facto approval of FAC for the period from April, 2017 to June, 2017

**1. FAC submission by RInfra-D:**

1.1 RInfra-D has submitted FAC submissions for the months of April, 2017 to June, 2017 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by RInfra-D, the Commission has accorded post facto approval for the FAC amount to be charged in the billing months of June, 2017 to August, 2017.

**2. Background**

2.1 On 21 October, 2016, the Commission has issued Tariff Order for RInfra-D, (Case No. 34 of 2016) for 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 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 13 January, 2017, the Commission accorded prior approval to the FAC for the month of October, 2016.

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 24 August, 2017, RInfra-D has filed FAC submissions for the months of April, 2017 to June, 2017 for post facto approval. The Commission has scrutinized the submissions provided by RInfra-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 RInfra-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)	Monthly Approved (MU)	Actual Sales		
			(Apr-17) (MU)	(May-17) (MU)	(Jun-17) (MU)
	(I)	(II=I/12)	(III)	(IV)	(V)
<b>LT Category</b>					
LT I – BPL	0.02	0.00	0.00	0.00	0.00
<b>LT -I Residential (Single Phase)</b>					
0-100	1712.64	142.72	137.47	136.27	137.62
101-300	1110.85	92.57	105.29	111.64	106.69
301-500	194.23	16.19	23.39	30.40	23.53
500and above	73.25	6.10	9.38	14.59	9.47
<b>LT -I Residential (Three Phase)</b>					
0-100	235.14	19.60	19.68	19.81	19.92
101-300	352.72	29.39	31.36	32.18	31.60
301-500	185.53	15.46	19.00	20.97	18.94
500and above	352.08	29.34	36.04	41.66	35.99
<b>LT II- Commercial</b>					
LT II (a) - 0-20 kW	1720.60	143.38	159.53	164.29	154.78
LT II (b) - 20-50 kW	221.98	18.50	20.55	22.28	20.80
LT II (c) - above 50 kW	462.16	38.51	46.87	51.70	48.41
LT III (A)- LT Industrial upto 20 kW	163.16	13.60	15.18	14.68	14.00
LT III(B) - LT Industrial above 20 kW	379.10	31.59	35.18	36.11	34.52
LT IV - Public Water Works	3.23	0.27	1.02	1.12	1.13
LT-V : LT- Advertisements and Hoardings	3.74	0.31	0.31	0.34	0.28
LT VI: LT -Street Lights	66.43	5.54	4.70	4.54	4.23
LT-VII (A): LT -Temporary Supply Religious	2.23	0.19	0.03	0.06	0.03
LT-VII (B): LT -Temporary Supply Others	81.48	6.79	1.35	1.35	0.68
LT VIII: LT - Crematorium & Burial Grounds	1.10	0.09	0.18	0.10	0.09
LT IX: LT -Public Service (A)	20.49	1.71	1.88	1.77	1.79
LT IX: LT -Public Service (B)	68.67	5.72	8.00	7.87	8.40
LT X (A) : LT - Agriculture Pump sets	0.11	0.01	0.005	0.005	0.005
LT X (A) : LT – others	0.00	0.00	0.003	0.02	0.01



Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales		
			(Apr-17) (MU)	(May-17) (MU)	(Jun-17) (MU)
	(I)	(II=I/12)	(III)	(IV)	(V)
<b>HT Category</b>					
HT 1 (Industrial)	363.22	30.27	25.57	27.38	26.02
HT 2 (Commercial.)	543.88	45.32	45.00	48.69	47.28
HT 3 (Group Housing Soc.)	50.93	4.24	3.88	4.21	3.81
HT 4 (Temporary Supply)	13.30	1.11	0.10	0.11	0.11
HT – Metro and Monorail	15.96	1.33	2.31	2.53	2.43
HT - Public Services (A)	9.20	0.77	0.61	0.68	0.67
HT - Public Services (B)	95.06	7.92	7.32	7.62	7.10
HT - Public Water works	7.09	0.59	0.46	0.50	0.65
<b>TOTAL</b>	<b>8509.17</b>	<b>709.10</b>	<b>761.63</b>	<b>805.47</b>	<b>760.97</b>

#### 4. Cost of Power Purchase

4.1 The following are the list of sources from which RInfra-D procures power to meet its demand.

- Purchases from RInfra-G (DTPS)
- Purchase from other generating stations such as VIPL
- Renewable energy procurement(RPS)
- Bilateral contracts and decrements to the imbalance pool.
- MSEDCL

4.2 The following tables show the variation in average power purchase cost (Rs/kWh) for the month of April, 2017 to June, 2017 as compared to average power purchase cost approved in Tariff Order dated 21 October, 2016:

Particulars	Tariff Order Dated 21.10.2016			Actual for April, 2017		
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
RInfra-G	3800.65	1566.90	4.12	315.09	143.54	4.56
RE Sources	275.15	345.43	12.55	20.96	13.34	6.36
VIPL-G	4059.71	1788.08	4.40	268.26	122.13	4.55
Bilateral/ Traders	1700.62	533.95	3.14	202.57	62.49	3.08
Others	-	-	-	46.62	18.37	3.94
<b>Total</b>	<b>9836.13</b>	<b>4234.36</b>	<b>4.30</b>	<b>853.51</b>	<b>359.86</b>	<b>4.22</b>



Particulars	Actual for May, 2017			Actual for June, 2017		
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
RInfra-G	286.08	128.28	4.48	268.18	120.18	4.48
RE Sources	26.22	16.06	6.13	37.25	22.65	6.08
VIPL-G	346.64	162.42	4.69	157.24	85.31	5.43
Bilateral/ Traders	149.26	47.62	3.19	257.62	80.09	3.11
Others	112.60	39.34	3.49	145.72	47.85	3.28
<b>Total</b>	<b>920.80</b>	<b>393.73</b>	<b>4.28</b>	<b>866.01</b>	<b>356.08</b>	<b>4.11</b>

4.3 The Commission allows the average power purchase cost of **Rs. 4.22/kWh** for the month of April, 2017, **Rs. 4.28/kWh** for the month of May, 2017 and **Rs. 4.11/kWh** for the month of June, 2017 as shown in the tables 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 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 months of April, 2017 to June, 2017.

S. No.	Particulars	Units	Apr. 2017	May. 2017	Jun. 2017
1	Average power purchase cost approved by the Commission	Rs./kWh	4.30	4.30	4.30
2	Actual average power purchase cost	Rs./kWh	4.22	4.28	4.11
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.09)	(0.03)	(0.19)
4	Net Power Purchase	MU	853.51	920.80	866.01
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	(7.56)	(2.67)	(16.73)

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

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



S. No.	Particulars	Units	Apr. 2017	May. 2017	Jun. 2017
1.1	Incremental cost allowed to be recovered in Month n-4	Rs. Crore	0.00	0.00	(36.09)
1.2	Incremental cost in Month n-4 actually recovered in month n-2	Rs. Crore	0.00	0.00	(33.26)
1.3	<b>Adjustment factor for over-recovery/under-recovery (1.2 - 1.1)</b>	<b>Rs. Crore</b>	<b>0.00</b>	<b>0.00</b>	<b>(2.84)</b>

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

7.1 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 the months of April, 2017 to June, 2017.

Month	Apr. 2017	May. 2017	Jun. 2017
Adjustment Factor (Rs. Crore)	0.00	0.00	(2.84)
Applicable Interest Rate	10.75%	10.75%	10.75%
Carrying/ Holding cost for under/ over recovery (Rs. Crore)	0.00	0.00	(0.05)

## 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 up to		
				Apr. 2017	May. 2017	Jun. 2017
1	Net Energy input at Distribution Voltages for own sales*	MU	9450.99	829.47	1,727.87	2,568.78
2	Own Energy sales at Distribution voltages	MU	8509.17	761.63	1,567.09	2,328.06
3	Distribution Loss (=1-2)	MU	941.82	67.84	160.78	240.72
4	Distribution Loss as % of net energy input (=3/1)	%	9.97%	8.18%	9.30%	9.37%
5	Excess Distribution Loss =[Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-	-
6	<b>Disallowance of FAC due to excess Distribution Loss</b>	<b>Rs. Crore</b>	-	-	-	-

*Net energy input at Distribution Voltage for own sales as approved by the Commission is obtained by reducing the approved “energy injected by TPC-D for change-over consumers (2331.86 MU)” from the approved “total energy input at T<>D (11782.85 MU)”*

8.3 As seen from the above table, cumulative distribution loss for the months of April, 2017 to June, 2017 is lower than the approved distribution loss of 9.97%. Accordingly, there is no deduction on account of excess distribution loss for the month of April, 2017 to June, 2017.

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

9.1 In its vetting report dated 26 December, 2016 for the month of July to September, 2016, the Commission has directed RInfra-D as follows:

*“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 26 June, 2015, RInfra 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. RInfra shall adjust the resultant FAC amount which remains to be recovered / refunded in next FAC billing process...”*



9.2 In compliance of above, RInfra-D vide email dated 9 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 109.04 Crore is to be refunded to the consumers for this period. RInfra-D has proposed to refund this amount in six equal instalments with holding cost.

9.3 The Commission has scrutinised submission of RInfra-D and found that FAC of Rs 170.41 Crore is to be refunded to the consumers for the period of April to September, 2016. The Commission vide its FAC Report dated 13 January, 2017 has directed RInfra-D to refund Rs. 170.41 Crore to its consumers in six equal instalments with holding cost.

9.4 The Commission has considered Rs. 28.40 Crore (1/6<sup>th</sup>) of the total amount for the month of April, 2017 along with holding cost of Rs. 0.13 Crore.

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

10.1 The summary of the FAC amount as approved by the Commission for the month of April, 2017 to June, 2017 which is allowed to be recovered in the billing month of June, 2017 to August, 2017 is as shown in the Table below.

S. No.	Particulars	Units	Apr 17	May 17	Jun 17
<b>1.0</b>	<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	(7.56)	(2.67)	(16.73)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.00	0.00	(0.05)
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	0.00	0.00	(2.84)
<b>1.4</b>	<b>ZFAC = F+C+B</b>	<b>Rs. Crore</b>	<b>(7.56)</b>	<b>(2.67)</b>	<b>(19.62)</b>
1.5	Instalments of recalculated net FAC amount of Rs. 170.41 Crore for April to Sept-2016 (with holding cost)	Rs. Crore	(28.53)	-	-
<b>1.6</b>	<b>Net ZFAC for the months of April, 2017 to June, 2017</b>	<b>Rs. Crore</b>	<b>(36.09)</b>	<b>(2.67)</b>	<b>(19.62)</b>
<b>2.0</b>	<b>Calculation of FAC Charge</b>				
2.1	Energy Sales within the License Area	MU	761.63	805.47	760.97
2.2	Excess Distribution Loss	MU	0.00	0.00	0.00
2.3	ZFAC per kWh	Rs./kWh	(0.47)	(0.03)	(0.26)
<b>3.0</b>	<b>Recovery of FAC</b>				



S. No.	Particulars	Units	Apr 17	May 17	Jun 17
3.1	Allowable FAC [(2.1 x 2.3)/10]	Rs. Crore	(36.09)	(2.67)	(19.62)
3.2	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	0.00	0.00	0.00
4.0	<b>Total FAC based on category wise and slab wise allowed to be recovered</b>	<b>Rs. Crore</b>	<b>(36.09)</b>	<b>(2.67)</b>	<b>(19.62)</b>
4.1	Carried forward FAC for recovery during future period (3.1-3.2-4.0)	Rs. Crore	0.00	0.00	0.00

## 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 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 Cat = ZFAC 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 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....”*



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 months of April, 2017 to June, 2017.

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 RInfra-D for the billing month of June, 2017 to August, 2017.

**FAC for Billing Month of June, 2017 to August, 2017**

S. No.	Consumer Category	Slabs	ZFAC to be levied in billing month of Jun'17 (Rs./kWh)	ZFAC to be levied in billing month of Jul'17 (Rs./kWh)	ZFAC to be levied in billing month of Aug'17 (Rs./kWh)
(A)	<b>LT Category</b>				
1	LT - I – BPL	0 – 30	(0.26)	(0.02)	(0.14)
2	LT - I Residential (Single Phase)	0 – 100	(0.21)	(0.01)	(0.11)
		101 - 300	(0.43)	(0.03)	(0.23)
		301 - 500	(0.50)	(0.03)	(0.27)
		> 501	(0.59)	(0.04)	(0.32)
3	LT - I Residential (Three Phase)	0 – 100	(0.21)	(0.01)	(0.11)
		101 - 300	(0.40)	(0.03)	(0.22)
		301 - 500	(0.49)	(0.03)	(0.27)
		> 501	(0.58)	(0.04)	(0.32)
4	LT - II Commercial	0-20 kW	(0.52)	(0.04)	(0.28)
		20-50 kW	(0.53)	(0.04)	(0.29)
		>50kW	(0.56)	(0.04)	(0.30)
5	LT - III (A) Industrial	0-20 kW	(0.44)	(0.03)	(0.24)
6	LT - III (B) Industrial	>20 kW	(0.48)	(0.03)	(0.26)
7	LT - IV Public Water Works	all units	(0.44)	(0.03)	(0.24)
8	LT-V Advertisements and Hoardings	all units	(0.65)	(0.05)	(0.35)
9	LT – VI Street Lights	all units	(0.45)	(0.03)	(0.24)
10	LT-VII (A) -Temporary Supply Religious	all units	(0.39)	(0.03)	(0.21)
11	LT-VII (B) Temporary	all units	(0.56)	(0.04)	(0.30)



S. No.	Consumer Category	Slabs	ZFAC to be levied in billing month of Jun'17 (Rs./kWh)	ZFAC to be levied in billing month of Jul'17 (Rs./kWh)	ZFAC to be levied in billing month of Aug'17 (Rs./kWh)
	Supply Others				
12	LT VIII - Crematorium & Burial Grounds	all units	(0.36)	(0.03)	(0.20)
13	LT IX -Public Service (A)	all units	(0.42)	(0.03)	(0.23)
14	LT IX -Public Service (B)	all units	(0.43)	(0.03)	(0.24)
15	LT X (A) - Agriculture Pumpsets	all units	(0.25)	(0.02)	(0.13)
16	LT X (B) - Agriculture Others	all units	(0.36)	(0.02)	(0.19)
<b>(B)</b>	<b>HT Category</b>				
17	HT 1 (Industrial)	all units	(0.50)	(0.03)	(0.27)
18	HT 2 (Commercial.)	all units	(0.53)	(0.04)	(0.29)
19	HT 3 (Group Housing Soc)	all units	(0.46)	(0.03)	(0.25)
20	HT 4 (Temporary Supply)	all units	(0.53)	(0.04)	(0.29)
21	HT - Railways	all units	(0.41)	(0.03)	(0.22)
22	HT - Public Services (A)	all units	(0.47)	(0.03)	(0.25)
23	HT - Public Services (B)	all units	(0.51)	(0.04)	(0.28)
24	HT - Public Water works	all units	(0.49)	(0.03)	(0.26)



