



महाराष्ट्र विद्युत नियामक आयोग

१३वा मजला, केंद्र क्र. १, जागतिक व्यापार केंद्र, कफ परेड, कुलाबा, मुंबई - ४०० ००५.
दूरध्वनी क्र. : ०२२ २२९६ ३९६४/२२९६ ३९६५/२२९६ ३९६९ ♦ फॅक्स क्र. ०२२-२२९६ ३९७६
वेब-साईट : www.mercindia.org.in ♦ ई-मेल : mercindia@mercindia.org.in

म वि नि आ

No: MERC/Tech-IX/ FAC/2013-2014/ 00452

Date: 22 May, 2013

The Director,
Reliance Infrastructure Limited,
Reliance Energy Centre,
Santacruz (East), Mumbai 400 055.

Subject: Approval of Reliance Infrastructure Ltd Fuel Adjustment Charges (FAC) for the period **July 2012 to Sep 2012**. (QII – F.Y. 2012- 2013)

Reference: a) Reliance Infrastructure's submission vide letter dated 6th March, 2013 for Post facto approval of FAC for the period **July 2012 to Sep 2012**. (QII – F.Y. 2012- 2013)
b) R Infra's Reply's to data gaps received on 8th April 2013
c) Clarificatory E mail to additional data gap received on 17th April 2013
d) Meeting held on 22nd April 2013 and Revised Submission received on 24th April 2013

Sir,

With reference to your submission referred to above, in pursuance of directions in the Tariff Order dated 29th July 2011, I am directed to forward herewith the decision of the Commission (refer Annexure) for further necessary action.

The Commission has post facto approved FAC amount as tabulated below:

Sr. No.	Month	FAC Amount	Remarks
1	July 2012	70.3679 crores	To be Recovered from the Consumers.
2	Aug 2012	69.2367 crores	To be Recovered from the Consumers.
3	Sep 2012	67.9882 crores	To be Recovered from the Consumers.

The carried forward amount for recovery at future date is **Rs. 67.6504 crores**.

The details are tabulated in the enclosed Annexure.

Yours faithfully


(Rajendra Ambekar)
Secretary, MERC

Encl: Detailed Vetting Report for QII- F.Y. 2012-2013

Names and Addresses of Consumer Representatives authorized as per Section 94 (3) of the Electricity Act 2003

<p>Prayas Energy Group, Amrita Clinic, Athawale Corner, Lakdipool-Karve Road Junction, Deccan Gymkhana, Karve Road, Pune 411 004.</p>	<p>The President, Mumbai Grahak Panchayat, Grahak Bhavan, Sant Dynyaneshwar Marg, Behind Cooper Hospital, Vile Parle (West), Mumbai 400 056.</p>
<p>The General Secretary, Thane Belapur Industries Association, Plot No.P-14, MIDC, Rabale Village, PO Ghansoli, Navi Mumbai 400 7001</p>	<p>The President, Vidarbha Industries Association, 1st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.</p>



Detailed Vetting Report

Date: 22 May, 2013

Subject: Approval of Reliance Infrastructure Limited Fuel Adjustment Charges (FAC) for the period *Jul 2012 to Sep 2012 (QII – F.Y. 2012-2013)*

Reference:

- a) Reliance Infrastructure's submission vide letter dated 6th March, 2013 for Post facto approval of FAC for the period *July 2012 to Sep 2012*. (QII – F.Y. 2012- 2013)
- b) R Infra's reply to data gaps received on 8th April 2013
- c) Clarificatory reply through e-mail to additional data gap received on 17th April 2013
- d) Meeting held on 22nd April 2013 and Revised Submission received on 24th April 2013

1. The Commission had issued Tariff Order on 15th June 2012 in case No 180 of 2011 in the matter of Reliance Infrastructure Limited **Distribution Business (R Infra –D)** Petition for Approval of Aggregate Revenue Requirement and Tariff Determination for the FY 2011-12.

The Commission has issued Tariff Order on 29th September 2010 for R Infra G (Case 99 of 2009), vide which the **generation tariff** for the utility for FY 11 has been determined, The said tariff order is applicable with effect from September 2010. In the said T O, the Commission has directed that:

The rate of energy charge (ex bus) for the FY 2010-11 has been approved for DTSPS, based on approved operational parameters and assumed fuel price for the FY 2010-11. Any variations in the fuel prices shall be dealt with FAC Mechanism.

Further, the Commission has issued an Order on 16th May 2012 in Case no 163 of 2011 for R Infra G for Approval of Aggregate Revenue Requirement for the FY 2011-12.

Accordingly, vide its submission of 6th March, 2013 Reliance Infra –D has computed the FAC for the month of July, Aug and Sep 2012 as directed, and detailed methodology as per MERC (Terms and Conditions of Tariff) Regulations, 2005.

The relevant parameters approved in the said APR Order for computation of FAC are enclosed at Appendix-1

2. R Infra-D meets its power requirement through procurement from the following sources:
 - a) Procurement from R Infra –G (DTSPS)
 - b) Purchase from Other Generating Stations
 - c) RPS Power
 - d) Bilateral Purchases (as per SLDC)
 - e) UI purchases (as per SLDC)

R Infra-D has submitted affidavit verifying the application and the energy balance statements issued by SLDC.



The Commission has noted from R Infra submissions that, while the Commission in its Tariff Order in Case No 180 of 2011 dated 15th June 2012 has approved a quantum of 1279 MUs for Bilateral Purchase with effect from April 2012, R Infra has submitted that it has split the said quantum between procurements from VIPL and from other Bilateral Sources.

The Commission has also noted that R Infra has not procured any Standby Power in the months of July and Aug 2012 and has procured around 3 MUs of standby power in the month of the Sep 2012.

3. **Validation of Fuel Adjustment Cost for July, August and September 2012**

The Commission has assessed FAC charge of R Infra-D for the said period based on the FAC formula approved in the relevant Tariff Regulations.

4. **Change in Variable Cost of own generation and power purchase (C):**

Considering the normative actual variable (fuel) cost of generation for DTGS and actual power purchase from other sources, the rate of variable charge for own generation and power purchase is Rs. 2.371, 2.796 and 2.332 per kWh for months July, August and September, 2012 respectively, as against approved rate of Rs. 1.940 per kWh for these months. Due to change in variable (fuel) cost of generation and power purchase, the actual weighted average variable (fuel) cost of generation and power purchase has increased by Rs. 0.432/kWh, Rs 0.856/kWh and Rs. 0.392 / kWh in the said months July, August and September, 2012 respectively.

Change in variable (fuel) cost of own generation and power purchase, has been arrived at by multiplying the total quantum of gross generation and power purchase with the change in weighted average cost of generation and power purchase.

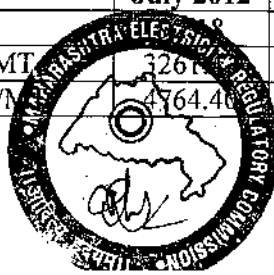
For the month of September 2012, it is noted that the Energy Availability from DTGS is lower, which has been made up by R Infra through outside procurements. R Infra has clarified that DTGS has taken Annual Overhaul of Unit 2 for 15 days (i.e. Starting from Sept. 1. to Sept. 15, 2012), because of which the Availability and Gross Generation was lower during the said month.

5. **Assessment of Variable (Fuel) Cost of own generation (R Infra-G)**

The Commission has assessed the variable cost of own generation (R Infra -G) taking into consideration change in fuel mix, actual fuel price and normative heat rate (efficient performance parameters), and it is noted that the variable cost is Rs. 2.606, 2.640 and 2.651 per kWh for months July, August and September, 2012 respectively as against Rs. 2.120 per kWh considered in the APR Order of R Infra-D for FY 2011-12.

The Fuel Mix of Washed Coal and Imported Coal used by R Infra and the prices paid thereto are as shown below:

Particulars	July 2012	Aug 2012	Sep 2012
Washed Coal : Imported Coal	8	77:23	77:23
Rate at which Washed Coal Consumed Rs /MT	3261	3238.78	3236.90
Rate at which Imported Coal Consumed Rs /MT	4764.40	4764.40	4764.40



The total normative variable cost of own (R Infra G) generation amounts to:

Particulars	July 2012	Aug 2012	Sep 2012
Normative V. C. (In Rs. Lacs)	9231.98	9278.61	6651.18
Net Generation (In MU)	354.30	351.52	250.85
Rate – Rs / kWh	2.606	2.640	2.651

6. Actual Fuel Price

The Commission has assessed fuel price in terms of heat content (Rs./Mkcal) by considering actual fuel price based on the audited statement of fuel cost submitted by R Infra. The Commission has considered calorific value of the coal basket as fired coal at DTGS based on the certificate issued by independent verification agency.

R Infra has incurred Coal related expenses of Rs 14.27 Lakhs, Rs. 13.45 Lakhs and Rs. 7.07 Lakhs for the months Jul, Aug and Sep 2012. These are approved.

7. Heat Rate

R-Infra has considered the approved heat rate viz. 2355 kcal/kWH, as per the APR Order for FY 2011- 12 for computing normative actual variable (fuel) cost of generation for assessment of FAC, which is allowed.

8. Disallowance of FAC corresponding to excess auxiliary consumption

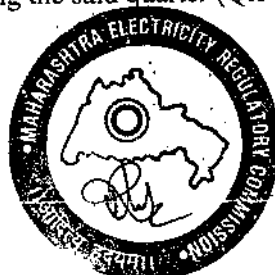
The Auxiliary consumption at DTGS is reported as 7.508%, 7.511% and 7.698% in July, August and September 2012 respectively against the approved value of 8.5 % (excl. that of FGD). Hence there is no disallowance on account of excess auxiliary consumption. The Auxiliary Consumption of FGD is taken at the normative value of 4.648 MU per month, for the months July, August and September 2012.

9. Disallowance of FAC corresponding to excess Transit Loss

Excess Transit Loss is computed, based on the normative transit loss approved in the APR Order. Fuel adjustment cost corresponding to excess Transit Loss has been disallowed and is computed by multiplying the excess transit loss with the washed coal consumption rate per metric ton (MT). The FAC disallowed corresponding to excess Transit Loss has been worked out as Rs. 39.20 Lakhs, Rs. 41.78 Lakhs and Rs. 29.86 Lakhs for the months July, August and September 2012, respectively.

10. RPS Power

R Infra has procured RPS Power during the said quarter (QII-FY 13) as given in the table below:



Particulars	July 2012	Aug 2012	Sep 2012
RPS Power Procured (MUs)	26.65	31.43	20.21
Rate of RPS Power (Rs/kWh)	6.584	5.622	7.342
Cost of REC Purchased (Rs lakhs)	1245.91	1527.05	1156.85

11. **Change in variable cost of power purchase:**

Total variable cost of power purchase from all sources for July, August and September 2012 is summarised as under:

Month	Procurement of Energy		Normative Actual Cost		Normative Rate of Power Purchase		Average Rate (Rs/kWh)
	From R Infra- G (MU)	From others (MU)	From R Infra- G (Rs lakhs)	From others (Rs lakhs)	From R Infra- G (Rs./kWh)	From others (Rs./kWh)	
July 2012	354.30	294.38	9231.98	6189.88	2.606	2.103	2.371
Aug 2012	351.52	275.35	9278.61	8288.69	2.640	3.010	2.796
Sep 2012	250.85	357.74	6651.18	7569.71	2.651	2.116	2.332

Note:

The Commission has noted that the normative rate of Power Purchase from Other Sources seems to be high in the month of August 2012 which is due to a combination of reasons, viz., the Bilateral procurement was higher and also there was higher amount spent in the said month August 2012 on purchase of REC

12. **Working Capital Interest (I)**

Month	Variable Cost as per Order (per month)	Actual variable cost (Norm)	Variance between Actual Variable cost and "Order" variable cost	Rate of IWC %	IWC (Rs Lakh)
Jul 2012	12016.01	15382.67	3366.65	14.75	41.38
Aug 2012	12016.01	17525.52	5509.51	14.75	67.72
Sep 2012	12016.01	14191.03	2175.02	14.75	26.73

Note 1: The Interest Rate 14.75% is as per approval of the Commission in the APR Order

Note 2: Interest on working capital has been granted at the approved Interest rate for the eligible amount viz. the difference between the Normative Actual variable cost of Power procurement and the Order cost of power procurement, for the respective month.

13. **Adjustment for Over Recovery/Under Recovery (B)**

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



(Rs. Lakhs)

Month	Adjustment Factor
Jul 2012	8479.62
Aug 2012	7871.97
Sep 2012	11151.56

14. **FAC (Total Fuel Adjustment Cost)**

Total fuel cost and power purchase adjustment (FAC) has been computed by summing up the change in costs (C), Working Capital Interest (I), and adjustment for over recovery / under recovery (B). The Commission has considered energy sales based on audited submissions of R Infra-D.

15. **Excess Distribution Loss**

The Commission had considered allowable Distribution loss at 9.902% for the months July, August and September 2012, respectively. The actual Distribution Losses are:

Month	Distribution Losses
Jul 2012	11.75%
Aug 2012	10.24%
Sep 2012	9.21%

There has been excess distribution loss for the months of July and August 2012. Hence there has been disallowance from the FAC of the months of July and August 2012 to the tune of Rs. 147.81 lakhs and Rs. 25.98 lakhs respectively.

16. **FAC per unit**

FAC per unit has been computed by considering Total Fuel Adjustment Cost, Energy Sales submitted by R Infra-D and excess distribution loss assessed by the Commission.

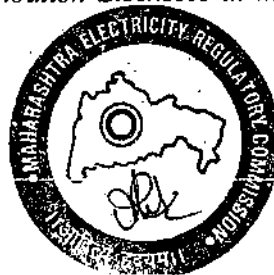
17. **Cap on Monthly FAC Charge**

17.1 As per the Tariff Order the ceiling, based on 10% of the variable component of Tariff works out to Rs 64.20 paise/kWh and based on 20% of the variable component of Tariff chargeable with effect from September 2012, it works out as 128.40 paise/kWh (with effect from September 2012).

17.2 **Applicability of Revised Ceiling Limit of 20% as per the Order Case No. 63 of 2012**

It was noted from the FAC submission of RInfra that the 20 % ceiling has been applied in FAC of July 2012 while the Commission's Order has allowed the same to be recovered with effect from September 2012. The relevant extract from the Commission's Order dated 26 August 2012 in the matter of Case 63 of 2012, for the enhancement of cap (20%) was shown to R Infra

42. In view of the above, the Commission hereby revises the average FAC Ceiling to 20% of Variable Tariff for all the Distribution Licensees in the State of Maharashtra. The revised FAC



ceiling of 20% is the average ceiling for the Distribution Licensee as a whole, and the applicable ceiling will be different for different consumer categories/sub-categories/consumption slabs, equivalent to 20% of the variable tariff of that consumer category/sub-category/consumption slab. The revised FAC Ceiling will come into effect for the FAC allowable (to be charged to consumers) from the month of September 2012 onwards. [Emphasis added]

R Infra submitted its clarification as follows :

"R Infra submits that the FAC recovery practice is in line with the directive of the Hon'ble MERC and that it has followed the Commission's directive for FAC billing to consumer's w.e.f Sept 2012". "R Infra further explained that its billing cycle is considered from around 15 date of the previous month to 15 date of the next month i.e. Sept Billing month will commence from 15th Sept and will continue till 14th Oct."

The Commission has noted that the recovery of FAC by R Infra has been carried out in line with the Commission's Order.

18. Recovery of FAC

The Commission has assessed FAC to be recovered in the month of Jul, Aug and Sep 2012 as Rs. 7036.79 Lakhs, Rs. 6923.67 Lakhs, and Rs. 6798.82 Lakhs respectively.

19. Summary of Results

The summary of the Total Fuel Cost and Power Purchase Cost Adjustment (FAC), FAC Charge per unit (FAC/kwh) and FAC to be recovered considering the cap on monthly FAC charge for Jul, Aug and Sep 2012 is given in the table below:



Sr. No.	Parameter	Unit	Value	Value	Value
			July 2012 Costing	Aug 2012 Costing	Sep 2012 Costing
			Sep-12 Billing	Oct-12 Billing	Nov-12 Billing
(A)	(B)	(C)	(D)	(D)	(D)
1.0	Calculation of FAC (A)				
1.1	Disallowance of change in variable cost of generation corresponding to excess auxiliary consumption	Rs Lakh	-	-	-
1.2	Change in weighted average variable cost of generation and power purchase after accounting for disallowance of change in variable cost corresponding to excess auxiliary consumption	Rs Lakh	2,799.64	5,365.42	2,385.57
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	2,799.64	5,365.42	2,385.57
1.4	Working Capital Interest (I)	Rs Lakh	41.38	67.72	26.73
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	8,479.62	7,871.97	11,151.56
1.6	FAC (A) = C + I + B	Rs Lakh	11,320.64	13,305.10	13,563.86
2.0	Calculation of FAC _{kwh}				
2.1	Sale within License Area	MU	548.037	539.227	529.503
2.2	Excess Distribution Loss	MU	11.512	2.023	-
2.3	FAC Charge (FAC _{kwh}) without considering cap on monthly FAC Charge	Paise/kWh	202.32	245.82	256.16
2.4	Cap on monthly FAC Charge	Paise/kWh	128.40	128.40	128.40
2.5	FAC Charge (FAC _{kwh}) considering cap on monthly FAC Charge	Paise/kWh	128.40	128.40	128.40
3.0	FAC (A)				
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	7,036.79	6,923.67	6,798.82
3.2	FAC (A) disallowed corresponding to excess Distribution loss	Rs Lakh	147.81	25.98	-
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	4,136.05	6,355.45	6,765.04



RELIANCE INDUSTRIES LIMITED**APPROVAL OF FUEL ADJUSTMENT CHARGES (FAC) FOR THE MONTHS
July, August & September 2012**

Form No	Particulars	Unit	Norms
1	Intra State Transmission Loss	%	4.26 %
2	Distribution Loss	%	9.90%
3	Auxiliary Consumption	%	8.50%
4	Transit Loss (For Coal)	%	0.80%
5	Heat Rate	Kcal/kWh	2355
6	Secondary Oil Consumption	MI/kWh	1
7	FGD Consumption	MU/yr	55.78

