



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

No: MERC/FAC/20132014/ १०/११

Date: 17 April, 2013

The Director,
Reliance Infrastructure Limited,
Reliance Energy Centre,
Santacruz (East), Mumbai 400 0055.

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

Reference:

- Reliance Infrastructure's submission vide letter dated 26th December 2012 for post facto approval of FAC for the period *April 2012 to June 2012 (QI – F.Y. 2012-2013)*- (withdrawn subsequently)
- Reliance Infrastructure's **revised** submission vide letter dated 6 March 2013 for post facto approval of FAC for the period *April 2012 to June 2012 (QI – F.Y. 2012-2013)*
- Clarification letter received from R Infra dated 8 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.

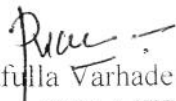
The Commission has post facto approved FAC amount as tabulated below:

Sr. No.	Month	FAC Amount	Remarks
1	April 2012	24.3642 crores	To be Recovered from the Consumers.
2	May 2012	37.2054 crores	To be Recovered from the Consumers.
3	June 2012	37.3304 crores	To be Recovered from the Consumers.

The carried forward amount for recovery at future date is **Rs. 47.5404 crores**.

The details are tabulated in the enclosed Annexure.

Yours faithfully


(Prafulla Varhade)
Director (EE), MERC

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

CC: Consumer Representatives authorized as per Section 94 (3) of the Electricity Act 2003

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, 1 st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.



Detailed Vetting Report

Date: 17 April, 2013

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

Reference:

- a) Reliance Infrastructure's submission vide letter dated 26th December 2012 for post facto approval of FAC for the period *April 2012 to June 2012 (QI – F.Y. 2012-2013)*- (withdrawn subsequently)
- b) Reliance Infrastructure's **revised** submission vide letter dated 6 March 2013 for post facto approval of FAC for the period *April 2012 to June 2012 (QI – F.Y. 2012-2013)*
- c) Clarification letter received from R Infra dated 8 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 DTPS, 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.

Also 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 26th December, 2012 Reliance Infra –D has computed the FAC for the month of April, May and June 2012 as directed, and detailed methodology as per MERC (Terms and Conditions of Tariff) Regulations, 2005. As the Commission pointed out some discrepancies and errors in the said submission, R Infra withdrew the said submission and re submitted a revised submission vide its letter dated 6 March 2013. The Commission has allowed the resubmission.

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 (DTPS)
 - b) Purchase from other Generating sources



- 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 submission that, while the Commission in its Tariff Order in Case 180 of 2011 of 15 June 2012 issued to R Infra has approved a quantum of 1279 MUs for Bilateral purchase of power, with effect from April 2012, R Infra has submitted that it has split the said quantum of procurement between procurements from VIPL and from other bilateral sources.

The Commission has noted that R Infra has procured around 6 MU “standby power” in each of the 3 months of QIFY13. On enquiry, R Infra has clarified that the “Standby Power” is the power purchased by R Infra from MSEDCL, from time to time, in the events of outages at DTPS. R Infra has also submitted supporting bills regarding the same.

3. Validation of Fuel Adjustment Cost for April, May and June 2012

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

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

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. 0.353, 0.780 and 0.637 per kWh in Apr, May and Jun, 2012 respectively. Considering the normative actual variable (fuel) cost of generation for DTPS and actual power purchase from other sources, the rate of variable charge for own generation and power purchase is Rs. 2.293, 2.720 and 2.577 per kWh for months Apr, May and Jun, 2012 respectively, as against Approved rate of Rs. 1.940 per kWh for these months.

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.

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, which are Rs. 2.808, 2.776 and 2.754 per kWh for months Apr, May and Jun 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 follows



	April 2012	May 2012	June 2012
Washed coal: Imported coal	65:35	75:25	80:20
Rate of Washed coal consumed Rs/MT	3231.13	3370.34	3370.34
Rate of Imported coal consumed Rs/MT	4968.68	4968.68	4764.40

It is to be noted here that the “Normative actual” cost of generation is higher than the “actual” cost of generation due to better performance parameters than those specified by the Commission. This is approved.

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

	April 2012	May 2012	June 2012
Normative V. C. (In Rs Lacs)	9330.39	9482.89	9183.08
Net Generation (In MUs)	332.29	341.64	333.48
Rate Rs/kWh	2.808	2.776	2.754

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 DTPS based on the certificate issued by independent verification agency.

R Infra has incurred Coal related expenses of Rs 9.72 Lakhs, Rs. 11.75 Lakhs and Rs. 224.75 Lakhs for the months April, May and June 2012 resp.. 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 DTPS is reported as 7.581%, 7.573% and 7.498% in April, May & June 2012 respectively against the approved value of 8.5 % (excl. 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 April, May and June 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. Nil Lakhs, Rs. 31.17 Lakhs and Rs. 32.59 Lakhs for the months April, May & June 2012 respectively.

10. **RPS power**

R Infra has procured RPS power during the said quarter as follows:

	April 2012	May 2012	June 2012
RPS Power procured MU	7.880	18.779	27.086
Rate Rs /kWh of RPS power	9.70	7.82	6.57
Cost of REC purchased Rs lakh	-	1796.69	886.12

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

Total variable cost of power purchase from all sources for April, May & June 2012 is summarized as under:

Month	Procurement of Energy		Normative Actual Cost		Normative Rate of Power Purchase		Average Rate (Rs/kWh)
	From R Infra- G (MUs)	From others (MUs)	From R Infra- G (Rs lakhs)	From others (Rs lakhs)	From R Infra- G (Rs./kWh)	From others (Rs./kWh)	
April 2012	332.290	355.54	9330.39	6439.18	2.808	1.811	2.293
May 2012	341.64	358.19	9482.89	9583.39	2.776	2.675	2.720
June 2012	333.48	355.00	9183.08	8588.60	2.754	2.419	2.577

Note:

The Commission has noted that the effective rate of power purchase from external sources (other than DTSPS) in May 2012 and June 2012 are higher than those in April 2012 on account of,

- higher extent of bilateral procurement at comparatively higher rates in May and June;
- purchase of REC in May and June;
- lower earnings in May and June from UI power sale.

R Infra-D has submitted the data for the power purchase cost certified by cost accountant.



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)
April 2012	12016.01	15769.57	3753.55	14.75	46.14
May 2012	12016.01	19035.10	7019.09	14.75	86.28
June 2012	12016.01	17739.09	5723.08	14.75	70.35

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)**

R Infra has reset the carried forward amount to zero as on 1 April 2012. Hence The average FAC charged in April 2012 is paise 41.68/kWh against the cap value paise 64.20/kWh (capped at 10% of average energy cost)

In May 2012 and June 2012, the average FAC without cap, is paise 91.87/kWh and paise 144.25/kWh respectively. Hence after capping the average FAC to paise 64.20/kWh, the remaining amount from these months is carried forward by R Infra for recovery in future.

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 9.90% for the months April, May & June 2012 respectively. The actual Distribution Losses are:

Month	Actual Distribution Loss	Specified Distribution Loss
April 2012	11.24%	9.902%
May 2012	13.50%	
June 2012	11.78%	



There has been excess distribution loss in all the three months of this quarter. Hence there has been disallowance from the FAC of the months of April 2012, May 2012 and June 2012 to the tune of Rs. 36.80 lakhs, Rs. 155.08 lakhs and Rs. 79.68 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**

As per the Tariff Order the ceiling, based on 10% of the variable component of Tariff, works out to Rs 64.20 paise/kWh.

18. **Recovery of FAC**

The Commission has assessed FAC to be recovered in the month of April, May & June 2012 as Rs. 2436.42 Lakhs, Rs. 3720.54 Lakhs, and Rs. 3733.04 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 April, May & June 2012 is given in the table below:



Sr. No.	Parameter	Unit	Value	Value	Value
			April 2012	May 2012	June 2012
(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	2,427.08	5,459.70	4,383.95
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	2,427.08	5,459.70	4,383.95
1.4	Working Capital Interest (I)	Rs Lakh	46.14	86.28	70.35
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	-	0.00	4,112.48
1.6	FAC (A) = C + I + B	Rs Lakh	2,473.22	5,545.97	8,566.77
2.0	Calculation of FAC_{kWh}				
2.1	Sale within License Area	MU	584.493	579.523	581.471
2.2	Excess Distribution Loss	MU	8.827	24.155	12.412
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	41.68	91.87	144.25
2.4	Cap on monthly FAC Charge	Paise/kWh	64.20	64.20	64.20
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Paise/kWh	41.68	64.20	64.20
3.0	FAC (A)				
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	2,436.42	3,720.54	3,733.04
3.2	FAC (A) disallowed corresponding to excess Distribution loss	Rs Lakh	36.80	155.08	79.68
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	0.00	1,670.36	4,754.04



RELIANCE INDUSTRIES LIMITED**APPROVAL OF FUEL ADJUSTMENT CHARGES (FAC) FOR THE MONTHS
APRIL, MAY & JUNE 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

