

Detailed Vetting Report

Subject : **Detailed Vetting Report of Reliance Infrastructure's FAC submissions for Q3FY10 and Q4 FY10**

Reference : a) Reliance Infrastructure's submission dated March 26, 2010 for Q3FY10
b) Subsequent revised submission dated May 3, 2010
c) Reliance Infrastructure's submission dated July 22, 2010 for Q4FY10

1 Submissions:

1.1 RInfra-D, has submitted,

- i) FAC submissions for the months October, November, December 2009 (Q3FY10) vide its submissions under reference (a) and revised submission as referred under (b) above; and
- ii) FAC submissions for the months January, February, March 2010 (Q4FY10) vide its submissions under reference (c) above, in accordance with the APR Order for APR Order of 15 June 2009 (Case 121 of 2008)

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

1.2 In terms of the MERC's Conditions of Tariff Regulations, 2005, a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for the FAC charges. Accordingly, RInfra-D has submitted details of FAC chargeable to all consumers for the above mentioned period.

1.3 RInfra-D has submitted affidavit verifying the application. RInfra-D has also submitted independent certification agency's report in support of fuel calorific value as received basis of as fired coal at Dahanu Thermal Power Station (DTPS) for the above mentioned period.

1.4 RInfra has submitted IBSM reports (with latest Revisions) for the requisite months as above, in support of its submission.

2. Validation of Fuel Adjustment Cost for Q3FY10 and Q4FY10

The Commission has assessed FAC charge of RInfra-D for the said period based on the FAC formula approved in the Tariff Regulations. The methodology adopted for vetting the FAC computations is as follows:

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

Due to increase in variable (fuel) cost of generation and power purchase, the actual weighted average variable (fuel) cost of generation and power purchase has varied as follows :

- a) by Rs. 0.197, 0.487, -0.500 per kWh in October, November, December 2009,
- b) by Rs. -1.004, -0.765 and -0.022 per kWh in January, February and March 2010 respectively.

Considering the normative variable (fuel) cost of generation for DTGS and actual power purchase from other sources, the variable charge for power is

- a) Rs. 4.003, 4.291, 3.304 per kWh for months October, November, December 2009
- b) Rs. 2.80, 3.039, 3.782 per kWh for months January, February and March 2010 respectively, as against Rs.3.804 per kWh

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 these periods, respectively

4 Assessment of Variable (Fuel) Cost of own generation (RInfra-G)

The Commission has assessed the variable cost of own generation (RInfra -G) taking into consideration change in fuel mix, actual fuel price and normative heat rate and which are

- a) Rs. 1.93 , 2.08, 2.03 per kWh for months October, November, December 2009 and
- b) Rs. 2.017, 2.123, 2.235 per kWh for months January, February and March 2010 respectively, as against Rs.2.08 per kWh considered in the APR Order of FY 2008-09,

It is to be noted here that the Normative actual cost of generation is higher than the actual cost of generation due to “Better than Normative” generation parameters of Dahanu thermal units.

The total variable cost of own generation is assessed at

- a) Rs. 6,083.30, 4,629.8, 6,265.69 Lakhs for months October, November, December 2009, and
- b) Rs. 6260.27 , 5942.54, 6952.20 Lakhs, for months January, February and March 2010 respectively

5. Change in Fuel Mix

RInfra-G has used blending ratio of Raw coal: Washed coal: Imported coal as follows:

a) For Q3FY10 :

Raw Washed Imp

0% : 90% : 10% during October 2009,

0% : 88% : 12% during November 2009 and

0% : 84% : 16% during December 2009 as against ratio of

7% : 73% : 20% for the year considered in the APR Order.

b) For Q4FY10

Raw Washed Imp

14% : 44% : 43% during January 2010,
0% : 70% : 30% during February 2010 and
19% : 46% : 36% during March 2010 as against ratio of
7% : 73% : 20% for the year considered in the APR Order

The Commission has accepted the change in fuel mix effected by RInfra-G for October, November, December 2009 and for January, February and March 2010

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 RInfra-G. The Commission has considered calorific value of the coal basket as fired coal at DTSP based on the certificate issued by independent verification agency.

RInfra-G has incurred Coal related expenses of

a) Rs. 36.25, 27.21, 28.23 Lakhs for the months October, November, December 2009 and

b) Rs. -61.91, 46.35, -2.49 Lakhs for the months January, February and March 2010 respectively, and submitted the details and relevant documents justifying the expenses.

The Commission has allowed these expenses as fuel cost expenses in the respective months.

7 Heat Rate

R-Infra has considered the approved heat rate (2500 kcal/kWH) as per the APR Order for FY 2008-09 for computing variable (fuel) cost of generation for assessment of FAC, which is allowed.

8 Disallowance of FAC corresponding to excess auxiliary consumption

a) The FAC of Rs. Nil has been disallowed on account of excess auxiliary consumption as actual auxiliary consumption for the months of October, November, December 2009 is below the normative level as per tariff order is lesser than the Normative value.

b) The FAC of Rs 13.95, 0, 78.65 Lakhs has been disallowed on account of excess auxiliary consumption, for the months of January, February and March 2010 respectively,

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

a) Rs 0, 18.52, 60.03 Lakhs for the months October, November, December 2009 and

b) Rs. 71.63, 58.76 , 75.64 Lakhs for the months of January, February and March 2010 respectively,

10 Change in variable cost of power purchase:

Total variable cost of power purchased for Q3FY10 and Q4FY10 is summarized as under:

Month	Units MU	Power Purchase variable cost Rs Lakh	Total variable cost of Power Purchase
October-09	857	34287.56	4
November-09	790	33925.4	4.291
December-09	759	25085.7	3.304
January 2010	689	29302.61	2.8
February 2010	626	19023.9	3.039
March 2010	795	30056.44	3.782

RInfra-D has submitted the data for the power purchase cost certified by cost accountant along with the power purchase bills from TPC-G.

TPC-G has charged FAC @ Rs 0.004, 0.222, 0.208 per kWh in its invoices for the months October, November, December 2009 respectively; and Rs. 0.606, 0.144 and 0.094 for the months January 2010, February 2010 and March 2010 respectively.

11 Working Capital Interest (I)
Rs lakhs

Month	Variable Cost as per Order	Actual variable cost (Norm)	Variance between Actual Variable cost and "Order" variable cost	Rate of IWC	IWC
October-09	32,294.83	34,287.56	1,992.72	13%	21.86
November-09	32,294.83	33,925.40	1,630.57	13%	17.66
December-09	32,294.83	25,085.70	(7,209.14)	13%	(078.10)
January 2010	32,294.83		(12992.23)	13%	(140.75)
February 2010	32,294.83		(13270.93)	13%	(143.77)
March 2010	32,294.83		(2238.39)	13%	(024.25)

The Interest Rate 13% is as per approval of the Commission in the APR Order of 15 June 2009 (Case 121 of 2008)

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

12 Adjustment for Over Recovery/Under Recovery (B)

In the computation of FAC, after adjustment for over-recovery/under-recovery ('B') and after considering the carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit

For the month of October 2009 Rs –nil (Following the "True-up" exercise)

For the month of November 2009 Rs (1,192.82) Lakhs

For the month of December 2009 Rs 577.78 Lakhs

For the month of January 2010 Rs. (358.16) Lakhs

For the month of February 2010 Rs. (236.31) Lakhs

For the month of March 2010 Rs.(2432.65) Lakhs

has come out as the Adjustment factor for over-recovery/under-recovery (1.3+2.0)

13 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 RInfra-D.

14 Excess Distribution Loss

The Commission had considered allowable Distribution loss at 10.5% for October, November, December 2009

Actual Distribution Loss is as follows :

Actual Oct 2009 10.21%

Actual Nov 2009 9.33%

Actual Dec 2009 10.96%

Actual Jan 2010 10.671 %

Actual February 2010 3.302 %

Actual March 2010 13.018 %

respectively

FAC amount has been reduced for the months October, November, December 2009 by Rs Lakhs 0, 0, 17 respectively and for the months January, February, March 2010 by Rs Lakhs 13.95, 0, 78.65 respectively

15 FAC per unit

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

16 Cap on Monthly FAC Charge

The ceiling based on 10% of the variable component of Tariff works out to Rs 64.2 paise/kWH as per APR order for FY 2008-09

17 Recovery of FAC:

The Commission has assessed FAC to be recovered in the month of Oct., Nov., & December 2009 as Rs.Lakhs 1694.88, 2822.99, -3306.92 respectively, and for January , February, March 2010 as Rs Lakhs (7410.27), (2560.23) respectively.

18 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 Oct., Nov., & December 2009 and for January, February, March 2010 is given in the tables below:

Sr. No.	Parameter	Unit	R-Infra-D Subm	Commission	R-Infra Subm	Commission	R-Infra Subm	Commission
			Oct-09		Nov-09		Dec-09	
1	Calculation of FAC (A)							
1.1	Disallowance of change in variable cost of generation corresponding to excess auxiliary consumption	Rs Lakh	0.00	0.00	0.00	0.00	0.00	0.00
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	1,710.22	1,684.72	3,850.86	3,850.86	-3,797.91	-3,797.91
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	1,710.22	1,684.72	3,850.86	3,850.86	-3,797.91	-3,797.91
1.4	Working Capital Interest (I)	Rs Lakh	21.86	21.59	17.66	17.66	-78.10	-78.10
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	-11.42	-11.42	-	-1,045.53	577.78	552.00
1.6	FAC (A) = C + I + B	Rs Lakh	1,720.67	1,694.88	2,822.99	2,822.99	-3,298.23	-3,324.01
2	Calculation of FAC _{kwh}							
2.1	Sale within License Area	MU	733.37	733.37	682.99	682.99	641.44	641.44
2.2	Excess Distribution Loss	MU	0.00	0.00	0.00	0.00	3.31	3.31
2.3	FAC Charge (FACKwh) without considering cap on monthly FAC Charge	Paise/kwh	23.46	23.11	41.33	41.33	-51.15	-51.55
2.4	Cap on monthly FAC Charge	Paise/kwh	64.20	64.20	64.20	64.20	64.20	64.20
2.5	FAC Charge (FACKwh) considering cap on monthly FAC Charge	Paise/kwh	23.46	23.11	41.33	41.33	-51.15	-51.55
3	FAC (A)							
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	1,720.67	1,694.88	2,822.99	2,822.99	-3,281.27	-3,306.92
3.2	FAC (A) disallowed corresponding to excess Distribution loss	Rs Lakh	0.00	0.00	0.00	0.00	16.73	16.73
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	147.29	147.29	0.00	0.00	0.00	-0.13

Sr. No.	Parameter	Unit	R-Infra-D Subm	Commissi on	R-Infra Subm	Commissi on	R-Infra Subm	Commissi on
			January 2010		February 2010		March 2010	
1	Calculation of FAC (A)							
1.1	Disallowance of change in variable cost of generation corresponding to excess auxiliary consumption	Rs Lakh	0.00	0.00	0.00		0.00	0.00
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	(6,925.52)	(6,925.52)	(4,785.75)	(4,785.75)	(177.49)	(177.49)
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	(6,925.52)	(6,925.52)	(4,785.75)	(4,785.75)	(177.49)	(177.49)
1.4	Working Capital Interest (I)	Rs Lakh	(140.75)	(140.75)	(143.77)	(143.77)	(24.25)	(24.25)
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	(358.16)	(358.16)	(236.31)	(236.31)	(2,432.62)	(2,432.62)
1.6	FAC (A) = C + I + B	Rs Lakh	(7,424.43)	(7,424.43)	(5,165.83)	(5,165.83)	(2,634.36)	(2,634.36)
2	Calculation of FAC _{kwh}							
2.1	Sale within License Area	MU	588.663	588.663	579.311	579.311	660.814	660.814
2.2	Excess Distribution Loss	MU	1.125	1.125	-	-	19.132	19.132
2.3	FAC Charge (FAC _{kwh}) without considering cap on monthly FAC Charge	Paise/kwh	(125.88)	(125.88)	(89.17)	(89.17)	(38.74)	(38.74)
2.4	Cap on monthly FAC Charge	Paise/kwh	64.20	64.20	64.20	64.20	64.20	64.20
2.5	FAC Charge (FAC _{kwh}) considering cap on monthly FAC Charge	Paise/kwh	(125.88)	(125.88)	(89.17)	(89.17)	(38.74)	(38.74)
3	<u>FAC (A)</u> -							
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	(7,410.27)	(7,410.27)	(5,165.83)	(5,165.83)	(2,560.23)	(2,560.23)
3.2	FAC (A) disallowed corresponding to excess Distribution loss	Rs Lakh	(13.95)	(13.95)	0.00	0.00	(78.65)	(78.65)
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	0.00	0.00	0.00	0.00	(0.00)	(0.00)

Reliance Infrastructure Ltd
Approval of Fuel Adjustment Charges (FAC) for Q3FY10 -
October 2009 to December 2009; and Q4FY10- January
2010 to March 2010

Form No.	Particulars	Unit	Norms
			(FY 09-10)
1	Intra State Transmission Loss	%	4.85%
2	Distribution Loss	%	10.50%
3	Auxiliary Consumption	%	8.50%
4	Transit Loss (for Coal)	%	0.80%
5	Heat Rate	kCal/kWH	2,500
6	Secondary Oil Consumption	ml/kWH	2