

Annexure-3

Detailed Vetting Report Post Factor approval of FAC Charges for the month November 2008 and December 2008

Upon vetting the FAC calculations for the months of November 2008 and December 2008 submitted, vide letter under above reference; the Commission has accorded post facto approval for the FAC amount for the months of November 2008 and December 2008 as detailed below:

2. The Commission has considered the increase in power purchase cost in case of approved power purchase sources as per the APR Order dated June 20, 2008.

3. Details of approval :

Month : November 2008 :

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), 138.08 Crore. The summary of the FAC claim for November 2008 as submitted by MSEDCL and as approved by the Commission is shown in the Table below:-

Sr No	Particulars	Unit	MSEDCL	Approved by Commission
1.	FAC net of excess T&D Loss	Rs.Crore	138.08	138.08
2.	FAC rate	Paise/kWh	31	31
3.	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	33.30	33.30
	-LT-Ag (<1300 hours per year)	Rs/hp/month	18.80	18.80

Month : December 2008

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), 155.95 Crore. The summary of the FAC claim for December 2008 as submitted by MSEDCL and approved by the Commission is shown in the Table below:-

Sr No	Particulars	Unit	MSEDCL	Approved by the Commission
1.	FAC net of excess T&D Loss	Crore	155.95	155.95
2.	FAC rate	Paise/kWh	31	31
3.	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	33.3	33.3
	-LT-Ag (<1300 hours per year)	Rs/hp/month	18.8	18.8

1. The Commission issued APR Order dated June 20, 2008 approving principles of ARR and Tariff for FY 2008-09 for MSEDCL and has also mentioned about the parameters and mechanism for computation of FAC. These are summarized in the Appendix to this letter. The Commission has approved FAC charges for the month of **November 2008 and December 2008** in accordance with the principles stipulated in the APR Order dated June 20, 2008 and MERC (Terms and Conditions of Tariff) Regulations 2005.
2. The Commission has considered power purchase sources based on the APR Order dated June 20, 2008.
3. MSEDCL has forwarded FAC submissions as per formats with a charge for November 2008 as well as for December 2008 @ 31 paise / unit for metered sales.
4. **Analysis of FAC proposal submitted by MSEDCL and computation of FAC charges is as below:**
 - i) **Variable Cost of Generation:**
 - a. MSEDCL has submitted the break up of purchase price of different fuels for all stations certified by Chartered Accountant.

b. Variable Fuel Cost :

MSEDCL has considered the base variable fuel cost for each station as approved by the Commission in the Order of MSPGCL dated May 31, 2008. MSEDCL has not considered power stations, which are yet to be commissioned while computing weighted average cost of generation. MSEDCL has submitted sample bills for the fuel purchased along with the FAC submissions. MSEDCL has also submitted fuel analysis report of representative monthly sample of fuels certified by an Independent Certification Agency along with FAC submissions.

Station-wise base variable charge per unit considered for FAC based on the approved cost by the Commission is as under:

Station	Net Gen (MU)	Energy Charge as per Order (Rs/kWh)	Other cost considered Rs. Crore	Component of Other charges (Rs./KWh)	Energy Charge as considered for FAC (Rs/kWh)
Khaparkheda	5483	1.28	13.77	0.03	1.25
Paras	348	1.55	2.53	0.07	1.48
Bhusawal	3004	1.91	18.50	0.06	1.85
Nasik	5612	2.06	48.22	0.09	1.97
Parli	4273	1.96	40.99	0.10	1.86

Station	Net Gen (MU)	Energy Charge as per Order (Rs/kWh)	Other cost considered Rs. Crore	Component of Other charges (Rs./KWh)	Energy Charge as considered for FAC (Rs/kWh)
Koradi	6574	1.23	29.52	0.04	1.19
Chandrapur	15120	1.19	13.57	0.02	1.17
Uran	3844	0.76	0.72	0.00	0.76
Paras II	1592	1.28	--	--	1.28
Parli II	1592	1.47	--	--	1.47

The details of fuel related costs for the months under reference for 10 existing generating stations of MSPGCL are as follows: (after scrutiny, due rectifications and approval by the Commission)

Sr No	Detail	Unit	For November 2008	For December 2008
(1)	Actual Fuel Cost	Rs Crore	595.23	660.91
(2)	Normative Actual Fuel cost	Rs Crore	514.66	571.38
(3)	Net Generation	MU	3538.09	3680.24
(4)	Approved variable cost of generation	Rs./kWh	1.37	1.37
(5)	Actual average variable cost of generation	Rs./kWh	1.68	1.80
(6)	Average Normative variable cost of generation	Rs./kWh	1.45	1.55
(7)	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	30.22	67.48

NOTE: The Commission observed the following discrepancy which has been duly rectified: The Commission observed that for Parli new Unit-II, and Paras new Unit II MSEDCL has considered the normative heat rate of 2600 kcal/kWh and auxiliary consumption of 9.50%, which are the normative parameters for the plant during the stabilisation period. The Parli New Unit-II has been commissioned in September 2007 and Paras New Unit II has been commissioned in March 2008 and in accordance with the provisions of the MERC (Terms and Conditions of the Tariff) Regulations, 2005, the stabilisation period needs to be considered for **six months from the commissioning of the Unit**. Further, the Commission clarifies that till date the Commission has not accorded its approval of MSPGCL's request for increase in the stabilisation period, which is in under consideration in a separate Case. Accordingly, for the purpose of FAC computations, the Commission has considered the normative performance

parameters as stipulated in the MERC (Terms and Conditions of the Tariff) Regulations, 2005 for the **period after stabilisation period** i.e., station heat rate of 2500 kcal/kWh and auxiliary consumption of 9%.

Accordingly, the change in variable cost of generation for November 2008 as considered by the Commission works out to be Rs. 30.22 Crore (3538 x (1.45-1.37)/10) and for December 2008 works out to be Rs. 67.48 crore (3680 x (1.55-1.37)/10).

c. **Auxiliary consumption:**

Auxiliary consumption at each unit is considered by MSEDCL at normative levels for calculation of variable cost of generation and the same is allowed except the change in the Parli new Unit-II and New Paras Unit –II, for the months November 2008 and December 2008.

d. **Heat Rate:**

MSEDCL has worked out the variable cost of generation considering normative heat rates of each station and the same is allowed except the change in the Parli new Unit-II and Paras New Unit –II, for the months November 2008 and December 2008.

e. **Transit Loss:**

MSEDCL has worked out the variable cost of generation considering normative transit loss and the same is allowed.

ii) **Variable cost of power purchase –**

The Commission has considered the increase in power purchase cost in case of approved power purchase sources as per the APR Order dated June 20, 2008 for FY 2008-09. However, the Commission observed that MSEDCL has not considered certain sources, which the Commission has approved in the APR Order. The cost of power of such stations even those where from inputs are nil, has also been considered in the “approved” cost. Accordingly, the Commission has also considered the cost of power from such sources. MSEDCL has submitted the data for the power purchase certified by Chartered Accountant

The details of power purchase by MSEDCL for the months November 2008 and December 2008 are given below :

S.No	Details	Unit	For Nov 2008	For Dec 2008
(1)	Net Energy Purchase	MU	2723.62	2615.42
(2)	Variable Cost of Energy purchased	Rs Crore	662.86	661.7
(3)	Average Rate of energy purchased	Rs./kWH	2.43	2.53
(4)	Approved Rate for Energy purchase	Rs./kWH	1.88	1.88

UI Charges:

In October 2008 MSEDCL has purchased 106 MU through UI as average rate of Rs. 4.71/kWh and in December 2008, MSEDCL has purchased 220 MU at the rate of Rs 3.96/kWh. This is allowed.

Scheduled Energy Received in grid through Imports from various regions and losses:

MSEDCL has claimed losses in power purchase through grid at 156 MU in November 2008 and 91 MU in December 2008 as the difference between the Scheduled Energy (including UI) and Actual Drawal. The Commission has considered the losses in the grid as submitted by MSEDCL.

For the month of November 2008 the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 178.44 Crore as against Rs. 180.30 Crore submitted by MSEDCL and for December 2008, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 228.58 Crore as against Rs. 231.31 Crore submitted by MSEDCL.

iii) Interest on working capital –

- a) MSEDCL in its FAC submission for the month November 2008, has considered interest on working capital for period from April 2008 to November 08, as Rs 31.93 Crore, in accordance with Regulation 63.6 of the MERC (Terms and Conditions of Tariff) Regulations, 2005.
- b) Further, MSEDCL in its submission for the month December 2008, has considered Rs 5.79 Crore as the Interest on working capital for December 2008, in accordance with Regulation 63.6 of the MERC (terms and Conditions of Tariff) Regulations, 2005.
- c) As regards the claim of MSEDCL regarding the interest on working capital in accordance with Regulation 63.6 of the MERC (terms and Conditions of Tariff) Regulations, 2005, the Commission is view that claim of interest on working capital in accordance with Regulation 63.6 can not be claimed through the FAC submission and any change in the working capital has to be considered during the truing up exercise of the Annual Revenue Requirement.
- d) Accordingly, the Commission has not considered any amount towards the interest on working capital.

iv) Adjustment factor for over recovery / under recovery (B) –

The summary of the adjustment factor for over recovery/under recovery for the months November and December 2008 as submitted by MSEDCL and as approved by the Commission is shown in the Table below:

For the month of November 2008

Sr. No.	Parameter	Unit	MSEDCL	Commission
(A)	(B)	(C)	(D)	
1.0	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month (AUGUST 2008)	Rs Lakh	14,984	14,984
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (November 2008)	Rs Lakh	11,277	11,277
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	3,708	3,708
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	-	-
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	3,708	3,708

For the month of December 2008

Sr. No.	Parameter	Unit	MSEDCL	Commission
(A)	(B)	(C)	(D)	
1.0	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month (SEPTEMBER 2008)	Rs Lakh	13,613	7,075
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (DECEMBER 2008)	Rs Lakh	18,889	18,889
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(5,276)	(11,814)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	11,122	6,595
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	5,846	(5,219.46)

- v) **Distribution Loss:** The actual distribution loss for November 2008 is 28.14 % and for December 2008 the same is 20.04%. While the Distribution loss for November 2008 is higher than the approved norm of 22.20%, the Distribution loss incurred in December 2008 is lower than the same. Thus, the excess distribution loss in November 2008 to the tune of 371.8 MU has been disallowed by the Commission for FAC application.

In this connection, MSEDCL has contended that there was an error while computing the energy sales for LT category for FY 2008-09 sales (65104 MU as against 65966 MU as given in the APR Order) and accordingly submitted that considering the revised sales the distribution loss should be approved at 23.22%. Though the Commission has not gone into the merit of the contention raised by MSEDCL in this regard as any review of the approved figures in the APR Order needs to be addressed through the appropriate regulatory process.

- vi) **Energy Sales for within License area:** The energy sales within licence area as submitted by MSEDCL for November 2008 is 4469 MU and for December 2008, it is at 5047 MU and the same is approved by the Commission.

The summary of the FAC amount as approved by the Commission for November 2008 and December 2008 is shown in the Table below:-

Month :November 2008

Sr. No.	Parameter	Unit	MSED CL	Approved
(A)	(B)	(C)	(D)	(D)
1	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	-	-
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	18,030	17,844
1.4	Working Capital Interest (I)	Rs Lakh	3,193	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	3,708	3,708
1.7	FAC (A) = C + I + B	Rs Lakh	24,931	21,552
2	Calculation of FAC/kWh			
2.1	Sale within License Area	MU	4,469	4,469
2.2	Excess T&D Loss	MU	-	372
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	55.79	44.52
2.4	Cap on monthly FAC Charge	Paise/kWh	30.9	30.9
2.5	FAC Charge (FAC/kWh) considering cap on monthly FAC Charge	Rs/kWh	0.31	0.31
3	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	13,808	13,808
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	1,149
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	11,122	6,594.61

Month : December 2008

Sr. No.	Parameter	Unit	MSEDCL	Approved
(A)	(B)	(C)	(D)	(D)
1	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	-	-
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	23,131	22,858
1.4	Working Capital Interest (I)	Rs Lakh	579	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	5,846	-5,219
1.7	FAC (A) = C + I + B	Rs Lakh	29,556	17639
2	Calculation of FAC/kWh			
2.1	Sale within License Area	MU	5,047	5,047
2.2	Excess T&D Loss	MU	-	-
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	58.56	34.95
2.4	Cap on monthly FAC Charge	Paise/kWh	30.9	30.9
2.5	FAC Charge (FACKWh) considering cap on monthly FAC Charge	Rs/kWh	0.31	0.31
3	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	15,595	15,595
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	-
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	13,961	2,043

APPENDIX

MSEDCL – Assumptions/Norms as per ARR order for FY 2008-09 for MSPGCL dated May 31, 2008 and for MSEDCL June 20, 2008 respectively.

MSEDCL - Vetting of FAC charges claimed by MSEDCL for November and December 2008

1. CAP on monthly FAC charge.

CAP on monthly FAC charge for FY 2008-09 works out to 30.90 paise per unit (10% of energy charge).

2 Summary of New Norms:

Station	Net Gen (MUs)	Energy Charge as per Order (Rs/kWh)	Energy Charge as considered for FAC \$ (Rs/kWh)	Heat rate (kcal/kwh)	Auxiliary Consumption
Khaparkheda	5483	1.28	1.25	2561	8.50%
Paras	348	1.55	1.48	3105	9.70%
Bhusawal	3004	1.91	1.85	2654	9.75%
Nasik	5612	2.06	1.97	2653	9.00%
Parli	4273	1.96	1.86	2657	9.00%
Koradi	6574	1.23	1.19	2792	9.80%
Chandrapur	15120	1.19	1.17	2551	7.80%
Uran	3844	0.76	0.76	1980	2.40%
Paras II	1592	1.28	1.28	2500	9%*
Parli II	1592	1.47	1.47	2500	9%*

\$ Energy charge for FAC is revised as energy charge as per MSEGCL with Tariff Order dated 31st May, 2008 include other charges like lubricants, chemicals, water, etc. which are excluded.

*In case of New Paras II, and New Parli II for November 2008 and December 2008 auxiliary consumption@ 9.% and Heat rate @ 2500 kcal/kWh is considered in accordance with MERC Tariff Regulations, 2005.

3. **T and D loss-** Approved Intra State Transmission Loss is 4.85% and Distribution Loss as per APR Order is 22.20%.
4. Transit Loss: 0.80% for all stations