

Annexure-4
Detailed Vetting Report
MSEDCL- Post Factor approval of FAC Charges for the month January
2009 and February 2009

Upon vetting the FAC calculations for the months of January 2009 and February 2009 submitted, vide letter under above reference; the Commission has accorded post facto approval for the FAC amount for the months of January and February 2009 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 : January 2009 :

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), Rs.144.34 Crore. The summary of the FAC claim for January 2009 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	144.34	144.34
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

Further the carried forward under-recovered FAC for the month of January 2009 as approved by the Commission works out to 109.28 crore.

Month : February 2009

The Commission has accorded post facto approval for the FAC amount of (net of T&D loss), Rs. 148.93 Crore. The summary of the FAC claim for February 2009 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	148.93	148.93
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

Further the under-recovered FAC amount till the month of February 2009 as approved by the Commission works out to 142.16 crore.

The Commission's Order dated March 30, 2009 in Case No 102 of 2008, stipulates that the Commission would approve the FAC to be recovered by MSEDCL in excess of existing ceiling (30.90 Paise/kWh) through FAC charge after detailed vetting of the actual FAC data on case to case basis for the period from November 2008 to February 2009. The Commission after vetting the FAC submissions till February 2009 has approved the FAC under-recovered amount till February 2009 as Rs 142. 6 Crore. Considering the average sales for the period from April 2008 to February 2009 and under-recovered amount of Rs. 142.16 crore till February 2009, **the Commission hereby approves the additional FAC charge (in addition to regular monthly FAC charge) of 10.06 Paise/kWh to be billed during the next three months i.e July to September 2009.**

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 January 2009 and February 2009 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 January 2009 and February 2009 @ 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 based 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 January 2008	For February 2008
(1)	Actual Fuel Cost	Rs Crore	690.20	680.59
(2)	Normative Actual Fuel cost	Rs Crore	606.28	586.90
(3)	Net Generation	MU	3792.68	3610.78
(4)	Approved variable cost of generation	Rs./kWh	1.37	1.37
(5)	Actual average variable cost of generation	Rs./kWh	1.82	1.88
(6)	Average Normative variable cost of generation	Rs./kWh	1.60	1.63
(7)	Change in variable cost of generation = {(3)X[(6)-(4)]}/10	Rs. Crore	86.99	92.51

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. 86.99 Crore $(3793 \times (1.60-1.37)/10)$ and for December 2008 works out to be Rs. 92.51 crore $(3611 \times (1.63-1.37)/10)$.

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.

d. **Heat Rate:**

MSEDCL has worked out the variable cost of generation considering normative heat rates of each station and the same is allowed.

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

The details of power purchase by MSEDCL for the months January 2009 and February 2009 are given below :

MSEDCL has submitted the data for the power purchase certified by Chartered Accountant.

S.No	Details	Unit	For Jan 2008	For Feb 2008
(1)	Net Energy Purchase	MU	2732.34	2374.16
(2)	Variable Cost of Energy purchased	Rs Crore	615.10	527.42
(3)	Average Rate of energy purchased	Rs./kWh	2.25	2.22
(4)	Approved Rate for Energy purchase	Rs./kWh	1.88	1.88

UI Charges:

In January 2009 MSEDCL has purchased 53 MUs through UI at average rate of Rs. 5.22 / kWh and in February 2009, MSEDCL has purchased 61 MU at the rate of Rs 2.43/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 172 MU in January 2009 and 170 MU in February 2009 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 January 2009 the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 180.28 Crore as against Rs. 181.44 Crores submitted by MSEDCL and for February 2009, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 159.39 Crore as against Rs. 160.45 Crores submitted by MSEDCL.

iii) Interest on working capital –

- a) MSEDCL in its FAC submission for the month January 2009, has considered interest on working capital for the month January 2009, as Rs 9.64 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 February 2009, has considered Rs 8.02 Crore as the Interest on working capital for February 2009, 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 January and February 2009 as submitted by MSEDCL and as approved by the Commission is shown in the Table below:

For the month of January 2009

Sr. No.	Parameter	Unit	MSEDCL	Commission
(A)	(B)	(C)	(D)	
1.0	Adjustment for over-recovery/under-			

Sr. No.	Parameter	Unit	MSEDCL	Commission
	recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month (October 2008)	Rs Lakh	4,895	10,329
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (January 2009)	Rs Lakh	3,740	3,740
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	1,155	6,589
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	13,961	2,043
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	15,116	8,632

For the month of February 2009

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 (NOVEMBER 2008)	Rs Lakh	13,808	13,808
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (FEBRUARY 2009)	Rs Lakh	11,566	11,566
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	2,243	2,243
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	19,789	10,928
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	22,032	13,170

- v) **Distribution Loss:** The actual distribution loss for January 2009 is 28.59 % and for February 2009 the same is 21.92%. While the Distribution loss for January 2009 is higher than the approved norm of 22.20%, the Distribution loss incurred in February 2009 is lower than the norms. Thus, the excess distribution loss in January 2009 to the tune of 420.01 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 (65104MU as against 65966 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 January 2009 is 4671 MU and for February 2009, it is at 4820 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 :January 2009

Sr. No.	Parameter	Unit	MSEDCL	Approved
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	18,144	18,028
1.4	Working Capital Interest (I)	Rs Lakh	964	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	15,116	8,632
1.7	FAC (A) = C + I + B	Rs Lakh	34,223	26660
2	Calculation of FACkWh			
2.1	Sale within License Area	MU	4,671	4,671
2.2	Excess T&D Loss	MU	-	420
2.3	FAC Charge (FACkWh) without considering cap on monthly FAC Charge	Paise/kWh	73.26	52.36
2.4	Cap on monthly FAC Charge	Paise/kWh	30.9	30.90
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	14,434	14,434
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	1,298
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	19,789	10927

Month : February 2009

Sr. No.	Parameter	Unit	MSEDCL	Approved
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	16,045	15,939
1.4	Working Capital Interest (I)	Rs Lakh	802	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	22,032	13170
1.7	FAC (A) = C + I + B	Rs Lakh	38,879	29109
2	Calculation of FAC/kWh			
2.1	Sale within License Area	MU	4,820	4,820
2.2	Excess T&D Loss	MU	-	-
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	80.67	60.4
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	14,893	14,893
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	23,986	14216

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 January and February 2009

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.

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