

Annexure-1

Detailed Vetting Report MSEDCL- Post Facto approval FAC Charges for the month July 2008 and August 2008

Upon vetting the FAC calculations for the months of July 2008 and August 2008 submitted, vide letter under above reference; the Commission has accorded post facto approval for the FAC amount for the months of July 2008 and August 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: July 2008:

The Commission has accorded post facto approval for the FAC amount (net of T&D loss) of Rs. 100.17 Crore. The Commission has also considered refund of Rs. 58.28 Crore in July, 2008, as elaborated in the vetting report which was not considered by MSEDCL. The summary of the FAC claim FAC for July 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	Rs.Crore	159.97	100.17
2.	FAC rate	Paise/kWh	30.90	20.36
3.	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	33.30	21.90
	-LT-Ag (<1300 hours per year)	Rs/hp/month	18.80	12.40

Month: August 2008

The Commission has accorded post facto approval for the FAC amount of (net of T&D loss), 149.84 Crore. The summary of the FAC claim for August 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	149.84	149.84
2.	FAC rate	Paise/kWh	30.90	30.90
3.	FAC rate (unmetered)			
	-LT-Ag (>1318 hours per year)	Rs/hp/month	33.30	33.30
	-LT-Ag (<1318 hours per year)	Rs/hp/month	18.80	18.80

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 **July and August, 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 @ 31 paise/unit for metered sales. MSEDCL has also forwarded clarificatory letter dated February 6, 2009.
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 July 2008	For August 2008
(1)	Actual Fuel Cost	Rs. Crore	537.76	505.36
(2)	Normative Actual Fuel cost	Rs. Crore	468.83	360.63
(3)	Net Generation	MU	3230	2673
(4)	Approved variable cost of generation	Rs./kWh	1.37	1.37
(5)	Actual average variable cost of generation	Rs./kWh	1.67	1.89
(6)	Average Normative variable cost of generation	Rs./kWh	1.45	1.35
(7)	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	27.97	(5.31)

NOTE: The Commission observed the following discrepancy which has been duly rectified: The Commission observed that for Parli 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 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 of 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 July 2008 as considered by the Commission works out to be Rs. 27.97 Crore (3230 x (1.45-1.37)/10) and for August 2008 works out to be Rs. (5.31) crore (3230 x (1.35-1.37)/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.

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.

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. Accordingly, the Commission has also considered the cost of power from such sources.

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

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

S.No	Details	Unit	For July 2008	For August 2008
(1)	Net Energy Purchase	MU	2449.93	2773.82
(2)	Variable Cost of Energy purchased	Rs Crore	611.06	747.66
(3)	Average Rate of energy purchased	Rs./kWh	2.49	2.70
(4)	Approved Rate for Energy purchase	Rs./kWh	1.88	1.88

UI Charges:

In July 2008 MSEDCL has purchased 122 MU through UI at average rate of Rs. 6.40 / kWh and in August 2008, MSEDCL has purchased 289 MU at the rate of Rs 4.07/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 as 225 MU in July 2008 and 188 MU in August 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 July 2008, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 175.00 Crore as against Rs. 176.52 Crore submitted by MSEDCL and for August 2008, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 239.28 Crore as against Rs. 240.25 Crore submitted by MSEDCL.

iii) **Interest on working capital** – MSEDCL has not considered interest on incremental working capital requirement on account of change in fuel and power purchase costs and accordingly the same is not considered in the FAC.

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

a) MSEDCL, in its earlier submissions, has not considered approved cost of RGPPL from August 2007 to January 2008, resulting in higher FAC Claim which has to be adjusted in phased manner from February 2008 to July 2008 as approved by the Commission while vetting the FAC of earlier months. The details of same are attached at **Annexure-I**. MSEDCL, in their FAC submissions has proposed a different phasing for adjustments in this regard. The Commission has not approved the adjustments as proposed by MSEDCL regarding change in FAC claim on account of RGPPL and the Commission has considered the adjustment as given in **Annexure-I**.

b) The Commission observed that MSEDCL its FAC submission for the month of August 2008, in its Format 6.6: Item 1.1: “Incremental cost allowed to be recovered in Month (May 2008)” has indicated an amount of Rs. 14601 Lakh. The Commission asked MSEDCL to explain the reasons for considering such amount, as per its own submissions the recoverable FAC allowed to be recovered in May 2008 amounted to Rs. 12725 Lakh. MSEDCL, in its reply, submitted that the carried forward recovery for the month of May 2008 amounted to Rs. 1876 Lakh i.e., (14601 Lakh– 12725 Lakh). MSEDCL submitted that this carried forward recovery was to be considered at Format 6.6: Item 1.1 for the month of June 2008. However, the same has not been considered in the month of June 2008. Hence in order to recover this pending carried forward recovery of May 2008 an amount of Rs 14601 Lakh has been considered in Format 6.6: Item 1.1 for the month August 2008.

- c) As regards the above mentioned discrepancy, the Commission has relied on the approved Vetting Report for the month of May 2008, wherein the Commission has not approved any under-recovered amount for the month of May 2008. Accordingly, the Commission has considered the allowable recoverable FAC for the month of May 2008 of Rs. 8814 Lakh under the Item No. 1.1 of Format 6.6.
- d) In the submission for the month of August 2008, MSEDCL has claimed Rs 12.04 Lakh as carried forward under-recovery from month July 2008, attributed to wrongly computation of fuel cost for power purchase from Paras generating station under Cell D17 of Format 3.3a for the month of July 2008. The Commission has verified the computation of the month of July 2008 in this regard and has accepted the above claim of MSEDCL
- e) The Commission asked MSEDCL to explain the details and supporting computations of all the numbers shown under the Format 6.6 Item 2.0: “Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit”. MSEDCL, in its reply, submitted that it has not considered the deduction of the over-recovery amount pertaining to RGPPL, of the Months of November 2007, December 2007, January 2007. MSEDCL has considered such amount as Rs. (5786.93) Lakh of November 2007, Rs. (6015.17) Lakh of December 2007 and Rs. (2921.109) January 2007 in the FAC submission for the month of August 2008.
- f) The Commission has not accepted MSEDCL’s computations in this regard and has accordingly considered the amount of Rs. (5827.76) Lakh under the Format 6.6 Item 2.0: “Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit” towards the claim on account of RGPPL based on the details as attached at **Annexure-I** indicating the monthly adjustment for the same.

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

For the month of July 2008

Sr. No.	Parameter	Unit	MSEDCL	Commission
1.0	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month (APRIL 2008)	Rs Lakh	(8,241)	(8,241)
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (JULY 2008)	Rs Lakh	(6,586)	(6,586)
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(1,655)	(1,655)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	-	(5,827.76)
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	(1,655)	(7,483)

For the month of August 2008

Sr. No.	Parameter	Unit	MSEDCL	Commission
1.0	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month (MAY 2008)	Rs Lakh	14,601	8,814
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (AUGUST 2008)	Rs Lakh	9,723	9,723
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	4,878	(909)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #	Rs Lakh	(13,919)	12
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	(9,040)	(897)

- v) **Distribution Loss:** The actual distribution loss for July 2008 is 13.71 % and for August 2008 the same is 10.84% which is lower than the approved norm of 22.20%. Thus, there is no excess distribution loss in July 2008 as well as August 2008. 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 July 2008 is 4921 MU and for August 2008, it at 4849 MU and the same is approved by the Commission.

The Commission has approved the FAC amount of Rs. 100.17 Crore for July 2008 and Rs 149.85 Crore for August 2008 as per details below:-

Month : July 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	17,652	17,500
1.4	Working Capital Interest (I)	Rs Lakh	-	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	-1,655	(7,483)
1.7	FAC (A) = C + I + B	Rs Lakh	15,997	10,017
2	Calculation of FAC/kWh			
2.1	Sale within License Area	MU	4,921	4,921
2.2	Excess T&D Loss	MU	-	-
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	32.51	20.36
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	0.20
3	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	15,204	10,016.84
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	793	-

Month: August 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	24,025	23928.35
1.4	Working Capital Interest (I)	Rs Lakh	-	0.00
1.5	T & D Loss Adjustment for the year		-	0.00
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	(9,040)	(897)
1.7	FAC (A) = C + I + B	Rs Lakh	14,984	23032
2	Calculation of FAC/kWh			
2.1	Sale within License Area	MU	4,849.34	4849.34
2.2	Excess T&D Loss	MU	-	0.00
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	30.90	47.49
2.4	Cap on monthly FAC Charge	Paise/kWh	30.90	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	14,984.47	14984.47
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	-	8047

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 June, 08

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	2600	9.5%*
Parli II	1592	1.47	1.47	2500	9.5%#

\$ 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 Paras II, auxiliary consumption@ 9.5% and Heat rate @ 2600 kcal/kWh is considered in accordance with MERC Tariff Regulations, 2005.

In case of Parli II, 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

ANNEXURE - I
MSEDCL – Summary of FAC adjustments to be done due to RGPPL

Month	FAC as submitted		FAC - Revised		Difference (Rs. Lakhs)	Month of adjustment
	FAC (Rs.Lakhs)	FAC (paise/ unit)	FAC (Rs.Lakhs)	FAC (paise/ unit)		
Aug-07	9,878.82	24.00	4,844.65	12.00	5,034.16	Feb-08
Sep-07	6,727.61	19.00	1,863.36	5.00	4,864.25	Mar-08
Oct-07	7,036.00	17.00	1,433.00	4.00	5,603.00	Apr-08
Nov-07	8,576.42	21.00	2,789.49	7.00	5,786.93	May-08
Dec-07	10,930.00	21.00	4,914.83	9.00	6,015.17	Jun-08
Jan-08	10,561.85	23.00	4,734.08	10.00	5,827.76	Jul-08
Total	53,710.70		20,579.42		33,131.28	