

## Annexure-2

### Detailed Vetting Report MSEDCL- Post Facto Approval of FAC Charges for the month September 2008 and October 2008

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

The Commission has accorded post facto approval to allow FAC amount of (net of T&D loss), 70.75 Crore. The summary of the FAC claim for September 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	136.13	70.75
2.	FAC rate	Paise/kWh	30.90	0.16
3.	FAC rate (unmetered)			
	-LT-Ag (>1318 hours per year)	Rs/hp/month	33.30	17.30
	-LT-Ag (<1318 hours per year)	Rs/hp/month	18.80	9.80

##### Month : October 2008

The Commission has accorded post facto approval for the FAC amount of (net of T&D loss), 107.89 Crore. The summary of the FAC claim for October 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	48.95	103.29
2.	FAC rate	Paise/kWh	11	22
3.	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	11.5	24.2
	-LT-Ag (<1300 hours per year)	Rs/hp/month	6.5	13.7

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 **September 2008 and October 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 September 2008 @ 31 paise / unit and for October 2008 @ 11paise/unit and 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

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)
Parli	4273	1.96	40.99	0.10	1.86
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 September 2008	For October 2008
(1)	Actual Fuel Cost	Rs Crore	573.60	588.94
(2)	Normative Actual Fuel cost	Rs Crore	444.10	518.87
(3)	Net Generation	MU	2998.24	3646.68
(4)	Approved variable cost of generation	Rs./kWh	1.37	1.37
(5)	Actual average variable cost of generation	Rs./kWh	1.91	1.61
(6)	Average Normative variable cost of generation	Rs./kWh	1.48	1.42
(7)	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	33.58	191.67

**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 September 2008 as considered by the Commission works out to be Rs. 33.58 Crore  $(2998 \times (1.48-1.37)/10)$  and for October 2008 works out to be Rs. 191.67 crore  $(3647 \times (1.42-1.37)/10)$ .

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 for the months September and October 2008 and for Paras New Unit –II for October 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 for the months September and October 2008 and for Paras New Unit –II for October 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. Accordingly, the Commission has also considered the cost of power from such sources.

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

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

S.No	Details	Unit	For Sept 2008	For Oct 2008
(1)	Net Energy Purchase	MU	2310.07	2664.65
(2)	Variable Cost of Energy purchased	Rs Crore	483.28	607.85
(3)	Average Rate of energy purchased	Rs./kWh	2.09	2.28
(4)	Approved Rate for Energy purchase	Rs./kWh	1.88	1.88

### **UI Charges:**

In September 2008 MSEDCL has purchased (25) MU through UI at average rate of Rs. 5.07 / kWh and in October 2008, MSEDCL has purchased (94) MU at the rate of Rs 1.61/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 109 MU in September 2008 and 98 Units in October 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 September 2008, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C ) of Rs. 80.42 Crore as against Rs. 81.30 Crore submitted by MSEDCL and for October 2008, the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C ) of Rs. 119.32 Crore as against Rs. 120.84 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 asked MSEDCL to explain in detail 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 full amount of the over-recovery amount pertaining to RGPPL, of the Month January 2007 in the FAC submission of the month August 2008. Accordingly, MSEDCL has considered such amount as Rs. (2906.65) Lakh in the month of September 2008.
  - c) The Commission has not accepted MSEDCL’s computations in this regard as the Commission has already considered the impact of such amount under the Format 6.6 Item 2.0: “Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit” based on the details as attached at **Annexure-I** indicating the monthly adjustment for the same, therefore no adjustment was required in this regard in the month of September 2008.

d) Further, MSEDCL considered an amount Rs 40175 Lakh towards the disallowance of power purchase from certain sources in the vetting of Incremental Additional Supply Charge (InASC) by Commission from the period from January 2008 to April 2008. MSEDCL further submitted that this amount has been considered in the Annual Performance Review (APR) Petition submitted thereafter, therefore the same has been reversed again to consumers in the month of October, 2008. Considering the reasons provided by MSEDCL regarding the entry of an amount of Rs Rs 40175 Lakh, the Commission has neither considered the entry of such amount in the month of September 2008 nor its reversal in the month of October 2008.

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 September 2008**

Sr. No.	Parameter	Unit	MSEDCL	Commission
<b>1.0</b>	<b>Adjustment for over-recovery/under-recovery ('B')</b>			
1.1	Incremental cost allowed to be recovered in Month ( <b>JUNE 2008</b> )	Rs Lakh	9,155	2,991
1.2	Incremental cost in Month j-4 actually recovered in month j-2 ( <b>September 2008</b> )	Rs Lakh	12,005	12,005
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(2,850)	(9,014)
<b>2.0</b>	<b>Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #</b>	Rs Lakh	37,268	8,047
<b>3.0</b>	<b>Adjustment factor for over-recovery/under-recovery (1.3+2.0)</b>	Rs Lakh	34,418	(967)

**For the month of October 2008**

Sr. No.	Parameter	Unit	MSEDCL	Commission
<b>1.0</b>	<b>Adjustment for over-recovery/under-recovery ('B')</b>			
1.1	Incremental cost allowed to be recovered in Month ( <b>July 2008</b> )	Rs Lakh	15,204	10,016.84
1.2	Incremental cost in Month j-4 actually recovered in month j-2 ( <b>October 2008</b> )	Rs Lakh	11,160	11,160
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	4,044	(1,143)
<b>2.0</b>	<b>Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit #</b>	Rs Lakh	(11,233)	-
<b>3.0</b>	<b>Adjustment factor for over-recovery/under-recovery (1.3+2.0)</b>	Rs Lakh	(7,189)	(1,143)

- v) **Distribution Loss:** The actual distribution loss for September 2008 is 17.77 % and for October 2008 the same is 25.52%. While the Distribution loss for September 2008 is lower than the approved norm of 22.20%, the Distribution loss incurred in October 2008 is higher than the same. Thus, the excess distribution loss in October 2008 to the tune of 204.88 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 September 2008 is 4405 MU and for October 2008, it is at 4594 MU and the same is approved by the Commission.

The summary of the allowable FAC as approved by the Commission for September 2008 and October 2008 is shown in the Table below:-

**Month: September 2008**

Sr. No.	Parameter	Unit	MSED CL	Approved
(A)	(B)	(C)	(D)	(D)
<b>1</b>	<b>Calculation of FAC (A)</b>			
1.1	Disallowance of change in variable cost of generation corresponding to excess auxiliary consumption	<b>Rs Lakh</b>	-	-
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	<b>Rs Lakh</b>	-	-
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	<b>Rs Lakh</b>	8,136	8,042
1.4	Working Capital Interest (I)	<b>Rs Lakh</b>	-	-
1.5	T & D Loss Adjustment for the year		-	-
1.6	Adjustment for Over Recovery/Under Recovery (B)	<b>Rs Lakh</b>	34,418	(967)
<b>1.7</b>	<b>FAC (A) = C + I + B</b>	<b>Rs Lakh</b>	<b>42,554</b>	<b>7075</b>
<b>2</b>	<b>Calculation of FACKWh</b>			
2.1	Sale within License Area	<b>MU</b>	4,405	4,405
2.2	Excess T&D Loss	<b>MU</b>	-	-
2.3	FAC Charge (FACKWh) without considering cap on monthly FAC Charge	<b>Paise/kWh</b>	96.6	16.06
2.4	Cap on monthly FAC Charge	<b>Paise/kWh</b>	30.9	30.9

Sr. No.	Parameter	Unit	MSED CL	Approved
(A)	(B)	(C)	(D)	(D)
2.5	FAC Charge (FAC/kWh) considering cap on monthly FAC Charge	Rs/kWh	0.31	0.16
<b>3</b>	<b>FAC (A)</b>			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	13,613	7075
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	28,942	-

**Month : October 2008**

Sr. No.	Parameter	Unit	MSEDCL	Approved
(A)	(B)	(C)	(D)	(D)
<b>1</b>	<b>Calculation of FAC (A)</b>			
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	12,084	11,932
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	-7,189	-1,143
<b>1.7</b>	<b>FAC (A) = C + I + B</b>	<b>Rs Lakh</b>	<b>4,895</b>	<b>10,789</b>
<b>2</b>	<b>Calculation of FAC/kWh</b>			
2.1	Sale within License Area	MU	4,594	4,594
2.2	Excess T&D Loss	MU	-	205
2.3	FAC Charge (FAC/kWh) without considering cap on monthly FAC Charge	Paise/kWh	10.66	22.48
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	0.11	0.22



<b>Sr. No.</b>	<b>Parameter</b>	<b>Unit</b>	<b>MSEDCL</b>	<b>Approved</b>
<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(D)</b>	<b>(D)</b>
<b>3</b>	<b>FAC (A)</b>			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	4,895	10,329
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	460.6
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	-	-

## 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 September and October 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	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 31<sup>st</sup> May, 2008 include other charges like lubricants, chemicals, water, etc. which are excluded.

\*In case of Paras II, for September 2008, 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
<b>Total</b>	<b>53,710.70</b>		<b>20,579.42</b>		<b>33,131.28</b>	