

**Detailed Vetting Report MSEDCL- Post Facto approval of
FAC Charges for August 2009 submitted by MSEDCL**

Reference :

- a) MSEDCL's letter No. MSEDCL/CAS/FAC/L7/68 of November 10, 2009 for submission of August-09
 b) Subsequent corrected soft copy dated 26th November 2009
 c) Clarification regarding Cost of Procured power received on 30th November 2009

1. FAC submission by MSEDCL:

- 1.1 Upon vetting the FAC calculations for the months of August-09, submitted vide letter under above Reference the Commission has accorded post facto approval for the FAC amount for the month August-09 as detailed below.

The Commission issued MYT Order dated August 17, 2009 (Case 116 of 2008), approving principles of Annual Revenue Requirement (ARR) and Tariff for FY 2009-10 for MSEDCL and has also mentioned about the parameters and mechanism for computation of FAC, which have been summarized in the Appendix to this letter. The Commission has approved FAC charges for the month of August-09 in accordance with the principles stipulated in the MYT Order dated August 17, 2009 and the MERC (Terms and Conditions of Tariff) Regulations, 2005

- 1.2 The Commission has considered power purchase sources based on the MYT Order dated August 17, 2009
- 1.3 MSEDCL has forwarded FAC submissions as per formats with the FAC charge for August-09 at the rate of 3.43 paise/kWh for metered sales
- 1.4 The Commission has considered the increase in power purchase cost in case of approved power purchase sources as per the MYT Order dated August 17, 2009 (Case 116 of 2008)

2. Details of approval:

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), Rs. 17.83 Crore for month August-09. The summary of the FAC claim for August-09 as submitted by MSEDCL and as approved by the Commission is shown in the Table below:-

Aug-09

Sr No	Particulars	Unit	MSEDCL	Approved by Commission
1	FAC net of excess T&D Loss	Rs. Crore	17.83	17.83
2	FAC rate	Paise/kWh	3.43	3.43
3	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	3.70	3.70
	-LT-Ag (<1300 hours per year)	Rs/hp/month	2.10	2.10

In compliance with Regulation 82.6 of MERC (Terms and Conditions of Tariff) regulations 2005 the FAC allowed to be recovered amounts to Rs 17.83 Crore. Further, the carried forward under-recovered FAC for the month August-09 works out to Rs.Crore 0

3. Analysis of FAC proposal submitted by MSEDCL and computation of FAC charges is as below:

a) Variable Cost of Generation:

MSEDCL has submitted the break-up of purchase price of different fuels for all stations certified by Chartered Accountant.

i) Variable Fuel Cost :

MSEDCL has considered the base variable fuel cost for each station as approved by the Commission in the MYT Order of MSPGCL of August 17, 2009 (Case 115 of 2008) and in conformity with the directions given in the Commission's letter MERC/MON/FAC/MSEDCL/09/2637 dated November 20, 2009

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 given at the end of the report

ii) Secondary fuel consumption :

The Commission's clarifications on the issues of secondary fuel oil consumptions for FAC computations are as under:

- In case secondary fuel oil consumption is more than 2 ml/kWh, the same should be limited to the approved level 2 ml/kWh
- In case usage of actual secondary fuel oil consumption is less than normative value of 2 ml/kWh (or no consumption), the same should be recomputed considering the normative levels.

Accordingly, the Commission has approved the cost of secondary fuel oil consumption, Such that, the normative fuel consumption allowed for FAC vetting for August-09 is upto a limit value of 2 ml/kWh in combination of Fuel Oil, LDO and LSHS

The summary of fuel related costs for the month of August-09 for existing generating stations of MSPGCL as approved by the Commission after detail vetting, is shown in the Table below:

Sr No	Detail	Unit	For August-09
1	Actual Fuel Cost	Rs Crore	750.0
2	Normative Actual Fuel cost	Rs Crore	608.7
3	Net Generation	MU	3300.5
4	Approved variable cost of generation	Rs./kWh	1.60
5	Actual average variable cost of generation	Rs./kWh	2.27
6	Average Normative variable cost of generation	Rs./kWh	1.84
7	Change in variable cost of generation = {(3)X[(6)-(4)]}/10	Rs. Crore	81.8

iii) Auxiliary consumption:

Auxiliary consumption for all generating stations has been considered by MSEDCL at normative levels for calculation of variable cost of generation and the same is allowed.

iv) Heat Rate:

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

v) Transit Loss:

MSEDCL has worked out the variable cost of generation considering normative transit loss as approved in the APR Order dated June 20, 2008 for FY 2008-09, and the same is allowed.

b) 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 MYT order of MSEDCL of August 17, 2009 (Case 116 of 2008) as per the tabulation given at the end of the Report.

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

In the initial submission, MSEDCL had considered costs other than fuel related costs for computation of the Energy procurement charges. This was pointed out to MSEDCL vide the Commission's letter No MERC/MON/FAC/MSEDCL/09/2637 Dated November 20,2009 MSEDCL rectified the errors and submitted the corrected soft copy on 26th Novemebr 2009.

Regarding Kawas and Gandhar TPS, it was noted that in the Energy charges paid, MSEDCL has also included the charges for MOPA (Monthly Operating Pattern Charges), which is a variable cost and the same is directly related to FPA & Basic Energy charges.

As per CERC guidelines, the same is allowed.

The details of power purchase by MSEDCL for : August-09 is given below

S.No	Details	Unit	Aug-09
-1	Net Energy Purchase	MU	2,597.94
-2	Variable Cost of Energy purchased	Rs Crore	496.87
-3	Average Rate of energy purchased	Rs./kWh	1.91
-4	Approved Rate for Energy purchase	Rs./kWh	2.13

c) **Unscheduled Interchange (UI) Charges:**

In month August-09 MSEDCL has purchased -32 MU through UI at average rate of Rs. 12.28 per 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 (215.08) MU in August-09
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 August-09 the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C), of Rs 27.34 Crore as submitted by MSEDCL.

d) **Interest on working capital –**

In the FAC submissions for the month, MSEDCL, has not made any claim for interest on working capital under Section 82.5 of MERC (Terms and Conditions of Tariff) Regulations, 2005. It is to be noted that any claim towards Interest on working capital, made as per Regulation 82.5 and substantiated with due documentation will be eligible for consideration under FAC submission.

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

The truing up as above is based on the performance parameters as specified in the relevant APR orders of the Commission.

In case any change in the specified parameter is approved by the Commission at a later date, based on the CPRI studies pertaining to “Determination of Achievable performance parameters of the MSPGCL Thermal power stations”, these values will be trued up accordingly at that time.

The summary of the adjustment factor for over recovery/under recovery for the month of August-09 as submitted by MSEDCL and as approved by the Commission is shown in the Tables below:

The Commission had allowed MSEDCL to recover additional FAC @ 38 paise per kWh in the bills of November 09 to January 2010
Based on the estimation of average consumption, the entire amount is expected to be recovered through the above mechanism
Hence, the "Carried forward adjustment for over-recovery/ under-recovery attributed to application of ceiling limit"
for the current month August 2009 is zero. MSEDCL shall maintain a separate record of the above recovery.

For the month of August-09

Sr. No.	Parameter	Unit	MSEDCL	Commission
(A)	(B)	(C)	(D)	
1	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month J-4(May 2009)	Rs Lakh	16357.41	16357.41
1.2	Incremental cost in Month j-4 actually recovered in j-2 August-09	Rs Lakh	17256.16	17256.16
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	-898.76	(898.76)
2	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit	Rs Lakh	0.00	0.00
3	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	-898.76	-898.76

f) **Distribution Loss: .**

Excess Distribution loss:

MSEDCL has incurred 20.52% cumulative Distribution loss upto the month. As this is more than the approved value of 18.20% deduction of Rs. 0.52 Crore has been made from the computed FAC amounts of the month

g. Energy Sales for within License area:

The energy sales within licence area as submitted by MSEDCL for the month August-09 is 5198 MU and the same is approved by the Commission

4. Summary :

The summary of the FAC amount as approved by the Commission for August-09 is shown in the Tables below:-

Month : August-09

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	2734	2734
1.4	Working Capital Interest (I)	Rs Lakh		0
1.5	T & D Loss Adjustment for the year			0
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	-899	-899
1.7	FAC (A) = C + I + B	Rs Lakh	1835	1835
2	Calculation of FACKWh			
2.1	Sale within License Area	MU	5198	5198
2.2	Excess T&D Loss	MU	151	151
2.3	FAC Charge (FACKWh) without considering cap on monthly FAC Charge	Paise/KWh	3.43	3.43
2.4	Cap on monthly FAC Charge	Paise/KWh	37	37
2.5	FAC Charge (FAC/kWh) considering cap on monthly FAC Charge	Rs/KWh	0.034	0.034
3	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	1783	1783
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	52	52
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	0	0

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.

1. CAP on monthly FAC charge.

CAP on monthly FAC charge for FY 2008-09 works out to 37 paise per unit (10% of energy charge).

2 Summary of New Norms:

2.1 Purchase from MSPGCL:

Station	Net Gen (MUs)	Energy Charge as per Order (Rs/kWh)	Heat rate (kcal/kwh)	Auxiliary Consumption
Khaparkheda	5,627	1.75	2566	8.50%
Paras	373	1.86	3105	9.70%
Bhusawal	2,938	2.28	2652	9.75%
Nasik	5,630	2.4	2642	9.00%
Parli	4,226	2.13	2660	9.00%
Koradi	5,888	1.51	2797	9.80%
Chandrapur	13,227	1.23	2556	7.80%
Paras -3	1,594	1.28	2500	9%
Parli -6	1,594	1.47	2500	9%
Uran	3,761	1.23	1980	2.40%

Note : The Net approved MUs are based on last 3 years' average Net generation of MSPGCL Stations

2.2 Purchase from Other sources

Particulars	ESO	Total Variable Charges (Rs Cr)	Avg. Cost (Rs./kWh)
MSPGCL	49093	7734	1.58
Korba STP	5014	319	0.64
Vindhayanc	3361	403	1.20
Vindhayanc	2625	304	1.16
Vindhayanc	2187	251	1.15
KAWAS A	1393	828	5.94
GANDHAR	1366	539	3.95
Farakka ST	499	83	1.67
Kahalgaon	242	36	1.49
Kahalgaon	300	48	1.60
TSTPS-EP	300	29	0.96
Sipat Stage	2235	189	0.84
Barh	110	22	1.96
NTPC	19634	3052	1.55
Kakrapar A	310	65	2.10
Tarapur AP	1080	104	0.97
Tarapur AP	1559	457	2.93
NPCIL	2949	626	2.12
Saradar Sar	924	189	2.05
PENCH	103	21	2.05
U.I. CHARC	0	0	
DODSON-I	40	9	2.31
DODSON-I	38	10	2.63
RGPPL	7500	1824	2.43
TOTAL P	80281	13466	1.68
NCE Sourced	4110	1509	3.67
CPPs	250	95	3.80
TOTAL	84641	15070	1.78

- 3 **T and D loss**- Approved Intra State Transmission Loss is 4.85% and Distribution Loss as per APR Order is 18.20%
- 4 Transit Loss: 0.80% for all stations