

ANNEXURE

Detailed Vetting Report MSEDCL- Post Facto approval of FAC Charges for January 2010 submitted by MSEDCL

Reference :

- a) MSEDCL's letter No. MSEDCL/CAS/FAC/L7/12 of April 19, 2010 submission of month January-10
- b) Subsequent meeting with MSPGCL at MERC office on April 27, 2010

1. FAC submission by MSEDCL:

- 1.1 Upon vetting the FAC calculations for the months of Jan-10, submitted vide letter under above Reference, the Commission has accorded post facto approval for the FAC amount for the month January-10 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 January-10 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. It is to be noted that MSEDCL has forwarded FAC submissions as per formats with a charge for . Jan-10 at the rate of 0.37 Rs/kWH. for metered sales
- 1.4 The Commission has observed that the said submission included some additional costs which were claimed by MSEDCL towards "additional FAC for period Apr 09 to Dec 09". MSEDCL explained that the same was as per revised calculation by MSPGCL. Discussions were held at MERC office with MSPGCL team and it was explained to the MSPGCL team that in view of the fact that the variable charge based on the revised performance norms for FY 2009-10 are yet to be approved by the Commission, the issue will have to be addressed through the truing up exercise which will be undertaken as part of the forthcoming ARR order. Because of the error as pointed out above, these claims were not considered during vetting by the Commission. This has resulted in large variance between "as submitted" and "as approved" values. The approved Rate for metered sales is **(0.1033) Rs/kWH**

2. Details of approval:

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), Rs. -54.48 Crore (to be refunded) for the month Jan-10 The summary of the FAC

claim for Jan-10 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 incl of excess T&D Loss	Rs. Crore	195.01	-54.48
2	FAC rate	Paise/kWh	36.99	-10.33
3	FAC rate (unmetered)			
	-LT-Ag (>1300 hours per year)	Rs/hp/month	39.90	-11.10
	-LT-Ag (<1300 hours per year)	Rs/hp/month	22.50	-6.30

In compliance with Regulation 82.6 of MERC (Terms and Conditions of Tariff) regulations 2005 the FAC allowed to be refunded amounts to Rs (54.48) Crore Further, the carried forward under-recovered FAC for the month Jan-10 works out to Rs. NIL

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:

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

Accordingly, the Commission has computed the cost of secondary fuel oil consumption, Such that, the normative fuel consumption allowed for FAC vetting for the month Jan-10 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 Jan-10 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 January-10
1	Actual Fuel Cost	Rs Crore	667.2
2	Normative Actual Fuel cost	Rs Crore	595.4
3	Net Generation	MU	3831.9
4	Approved variable cost of generation	Rs./kWh	1.60
5	Actual average variable cost of generation	Rs./kWh	1.74
6	Average Normative variable cost of generation	Rs./kWh	1.55
7	Change in variable cost of generation = {(3)X[(6)-(4)]}/10	Rs. Crore	-18.1

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.

The details of power purchase by MSEDCL for :Jan-10 is given below

S.No	Details	Unit	Jan-10
-1	Net Energy Purchase	MU	3,077.14
-2	Variable Cost of Energy purchased	Rs Crore	555.97
-3	Average Rate of energy purchased	Rs./kWh	1.81
-4	Approved Rate for Energy purchase	Rs./kWh	2.13

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

In January-10 MSEDCL has purchased /sold -37 MU through UI at avg rate of Rs. 6.18 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 (164.75) MU in January-10 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-10 the Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C), of Rs -113.52 Crore

d) **Interest on working capital –**

MSEDCL has mentioned that 10.25% is the rate of Interest for working capital. In the Note MSEDCL has mentioned that Rs.156.74 Crores is the interest accrued on Working Capital for October 2009. However, no claim has been tabulated in FAC submission.

As per APTEL judgment, interest on the difference of normative actual cost and approved cost of fuel in a month is eligible for payment through FAC mechanism, in case such claim is made. Else it will be addressed through the Annual Trueup.

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.

MSEDCL/MSPGCL had changed performance parameters for the Actual values as per CPRI studies for months Apr 09 to Dec 09. With this they had arrived at Rs 252.47 Crore as additional FAC chargeable for the period Apr 09 to Dec 09.

The Commission has not permitted the same as the values will be tried up in APR order with all relevant considerations, inclusive of those which were missed out by the utilities.

Only the adjustments permitted by the Commission's Order of Case 16 of 2008 have been allowed in the adjustment table..

The summary of the adjustment factor for over recovery/under recovery for the month of January-10 as submitted by MSEDCL and as approved by the Commission is shown in the Tables below:

Sr. No.	Parameter	Unit	MSEDCL	Commission
(A)	(B)	(C)	(D)	(D)
1	Adjustment for over-recovery/under-recovery ('B')			
1.1	Incremental cost allowed to be recovered in Month J-5(October 2009)	Rs Lakh	-6612.01	--6743
1.2	Incremental cost in Month j-5 actually recovered in j-2	Rs Lakh	-6151.07	-6151.07
	January-10			
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	-460.93	-592
2	Carried forward adjustment for over-recovery/under-recovery	Rs Lakh	31603.15	6356.00
	attributable to application of ceiling limit			
3	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	31142.22	5764

f) **Distribution Loss:**

Excess Distribution loss:

MSEDCL has incurred 20.12% cumulative Distribution loss upto the month. As this is more than the approved value of 18.20% deduction of Rs. -1.4 Crore has been made from the computed FAC amounts of the month.

It is to be noted here that , as the FAC itself is a negative value, to be paid back to the consumers at the rate calculated for "units sold" the cost towards excess distribution loss is included in the same.

g. Energy Sales for within License area:

The energy sales within licence area as submitted by MSEDCL for the month January-10 is 5272 MU and the same is approved by the Commission.

4. Summary :

The summary of the FAC amount as approved by the Commission for January-10 is shown in the Tables below:-

The Rate at which the amount is to be refunded is arrived at by dividing the above amount by the total consumption in licensed area.

At the above rate, total FAC amount of Rs (54.48) Crores is to be refunded to the consumers .

The amount to be carried forward for recovery at future date is zero

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	-8688	-11352
1.4	Working Capital Interest (I)	Rs Lakh	0	0
1.5	T & D Loss Adjustment for the year		0	0
1.6	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	31142	5764
1.7	FAC (A) = C + I + B	Rs Lakh	22454	-5587
2	Calculation of FACKWh			
2.1	Sale within License Area	MU	5272	5272
2.2	Excess T&D Loss	MU	135	135
2.3	FAC Charge (FACKWh) without considering cap on monthly FAC Charge	Paise/KWh	42	-10.33
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	0.3699	-0.1033
3	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	19501	-5448
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	500	-140
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	2453	0.00

APPENDIX

**Assumptions/Norms as per MYT order for MSPGCL dated May 31, 2008
and for MYT Order dated August 17, 2009 (Case 116 of 2008),**

1. CAP on monthly FAC charge.

CAP on monthly FAC charge for FY 2009-10 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
Vindhayanchal STP I	3361	403	1.20
Vindhayanchal STP II	2625	304	1.16
Vindhayanchal STP III	2187	251	1.15
KAWAS APM	1393	828	5.94
GANDHAR APM	1366	539	3.95
Farakka STPP-EP	499	83	1.67
Kahalgaon TPS-EP	242	36	1.49

Particulars	ESO	Total Variable Charges (Rs Cr)	Avg. Cost (Rs./kWh)
KahalgaonTPS-II	300	48	1.60
TSTPS-EP	300	29	0.96
Sipat Stage - II	2235	189	0.84
Barh	110	22	1.96
NTPC	19634	3052	1.55
Kakrapar APP	310	65	2.10
Tarapur APP 1&2	1080	104	0.97
Tarapur APP 3&4	1559	457	2.93
NPCIL	2949	626	2.12
Saradar Sarovar Project	924	189	2.05
PENCH	103	21	2.05
U.I. CHARGES	0	0	
DODSON-I	40	9	2.31
DODSON-II	38	10	2.63
RGPPL	7500	1824	2.43
TOTAL PP	80281	13466	1.68
NCE Sources	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