

Ref. No. MERC/FAC/20112012/ 025

Date 5 April, 2011

The Managing Director,
Maharashtra State Electricity Distribution Company Ltd.,
5th Floor, Prakashgad, Plot No. G-9,
Bandra (East),
Mumbai – 400 051.

Subject: Post Facto approval of FAC submission of MSEDCL for December 2010,

Reference: MSEDCL's FAC submission of month December 2010 received vide MSEDCL/PP/FAC/L7/9087 of 21st March 2011

Upon vetting the FAC calculations for the month of December, 2010 submitted vide letter under above reference, the Commission has accorded post facto approval for the FAC amount for the above mentioned month as detailed below.

Post facto approval accorded for FAC amount (net of excess T&D loss) of Rs. (95.8549) 17 Crores for the month December, 2010. Carried forward FAC at the end of the month is NIL.

The summary of the FAC claim for December, 2010 as approved by Commission is shown in the Table below:-

Sr No	Particulars	Unit	Approved
1	FAC incl of excess T&D Loss	Rs. Crore	(95.8549)
2	FAC rate	Paise/kWh	(15.45)
3	FAC rate (unmetered)		
	-LT-Ag (>1318 hours per year)	Rs/hp/month	(16.70)
	-LT-Ag (<1318 hours per year)	Rs/hp/month	(9.40)

I am directed to forward herewith the detailed vetting and approval of the Commission on FAC amount for the month December, 2010

Yours faithfully,

(P.B.Patil)
Registrar, MERC

Encl : Detailed Vetting Report for December, 2010

Cc as enclosed :

Names and Addresses of Consumer Representatives authorized as per Section 94 (3) of the Electricity Act 2003

Prayas Energy Group, Amrita Clinic, Athawale Corner, Lakdipool-Karve Road Junction, Deccan Gymkhana, Karve Road, Pune 411 004.	The President, Mumbai Grahak Panchayat, Grahak Bhavan, Sant Dynyaneshwar Marg, Behind Cooper Hospital, Vile Parle (West), Mumbai 400 056.
The General Secretary, Thane Belapur Industries Association, Plot No.P-14, MIDC, Rabale Village, PO Ghansoli, Navi Mumbai 400 7001	The President, Vidarbha Industries Association, 1 st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.
Shri N.Ponarathnam 25, Majithia Industrial Estate Waman Tukaram Patil Marg Deonar, Mumbai 400 088	Shri Rakshpal Abrol Bhartiya Udhami Avam Upbhokta Sangh Madhu Compound, 2 nd Floor 2 nd Sonawal Cross Road Goregaon (E), Mumbai 400063
Prof Dr G H Barhate Organiser, Grahak Panchayat Shrirampur Chairman, Research Centre C D Jain College of Commerce Shrirampur, Dist Ahmednagar	Shri Sandeep Ohri A-74, Tirupati Tower Thakur Complex Kandivali (E) Mumbai 400101

Post Facto approval of FAC Charges for December 2010 submitted by MSEDCL

Reference : MSEDCL's FAC submission of month December 2010 received vide MSEDCL/PP/FAC/L7/9087 of 21st March 2011

1. FAC submission by MSEDCL:

- 1.1 Upon vetting the FAC calculations for the month of December 2010, submitted vide letter under above Reference and after taking cognizance of the clarifications furnished by MSEDCL to the queries raised by the Commission, the Commission has accorded post facto approval for the FAC amount for the said months as detailed below.

The Commission issued MYT Order dated September 12, 2010 (Case 111 of 2009), approving principles of Annual Revenue Requirement (ARR) and Tariff for FY 2010-11 for MSEDCL and has also mentioned about the parameters and mechanism for computation of FAC. The Commission had appointed CPRI (A Govt. of India enterprise) to conduct tests and recommend "Achievable performance parameters". Of MSPGCL's thermal stations, whose report had guided the Commission to specify achievable performance parameters for the said year, taking into consideration the plant degradations.

The Commission has approved FAC charges for the months of December 2010 in accordance with the principles stipulated in the APR Order dated September 12, 2010 and the MERC (Terms and Conditions of Tariff) Regulations, 2005 and as explained above, any variance on account of the above will be addressed during the true-up.

- 1.2 Regarding purchase of power from the external sources, the Commission has considered power purchase sources and rates based on the APR Order dated September 12, 2010, which were effective from September 2010 onwards.

2. Details of approval:

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), **Rs. (95.8549)** Crores for the month December 2010. The summary of the FAC claim for December 2010 as approved by the Commission is shown in the Table below:-

Sr No	Particulars	Unit	Approved
1	FAC incl of excess T&D Loss	Rs. Crore	(95.8549)
2	FAC rate	Paise/kWh	(15.45)
3	FAC rate (unmetered)		
	-LT-Ag (>1318 hours per year)	Rs/hp/month	(16.70)
	-LT-Ag (<1318 hours per year)	Rs/hp/month	(9.40)

As the FAC amount is to be refunded to the consumers, the carried forward FAC at the end of the month December 2010 works out to **NIL**.

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

a) **Generation by MSPGCL stations:**

The Generation at most of the Thermal power plants of MSPGCL for the Month September 2010 was reasonably good. As against approved generation of 4747.95 MU (all thermal, gas, Hydro plants), the Actual gross generation was 4160.42 MU.

MSPGCL sold 157.11 MU energy in December 2010, from the “Retired” vintage plants at Koradi, Bhusawal, Paras and Parali. It is noted that half of the energy sold from these plants was charged by MSEDCL to FAC and half to ZLS.

b) **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 APR Order of MSPGCL of 12th September 2010 (Case 102 of 2009) and in conformity with the directions given in the Commission's letter MERC/MON/FAC/MSEDCL/09/2637 dated November 20, 2009

The summary of fuel related costs for the month December 2010 for existing generating stations of MSPGCL as approved by the Commission after detail vetting, is shown in the Table below:

Table

Sr No	Detail	Unit	
1	Actual Fuel Cost	Rs Crore	745.3687
2	Normative Actual Fuel cost	Rs Crore	729.7967
3	Net Generation	MU	3671.72
4	Approved variable cost of generation (Order)	Rs./kWh	1.755
5	Actual average variable cost of generation	Rs./kWh	2.06
6	Average Normative variable cost of generation	Rs./kWh	2.015
7	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	95.43535

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 of MSEDCL of September 12, 2010 (Case 111 of 2009) which is applicable from September, 2010 (See Appendix).

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

The details of power purchase by MSEDCL for December 2010 is given below

S.No	Details	Unit	December 2010
1	Net Energy Purchase	MU	3749.30
2	Variable Cost of Energy purchased	Rs Crore	775.1451
3	Average Rate of energy purchased	Rs./kWh	2.07
4	Approved Rate for Energy purchase (Order)	Rs./kWh	2.31

NOTE :

- i)** It is to be noted that with increase of generation from MSPGCL's plants, the procurement of energy from outside has gone down . However, net average rate of energy has gone up due to expensive generation from MSPGCL's plants with respect to the approved rate.
- ii)** The Actual variable cost of power generation by MSPGCL in December 2010 was Rs 2.06/kWh. However, due to inefficiency in operation, the Commission has allowed the Rate of Rs 2.015/kWh for that month.

c) Unscheduled Interchange (UI) Charges:

MSEDCL has sold 166 MU through UI at avg rate of Rs. 2.58 per kWh, in December 2010. This has reduced the cost of power procured by Rs 42.7231 Crores

d) Scheduled Energy Received in grid through Imports from various regions and losses:

MSEDCL has claimed losses in power purchase through grid at (148) MU in December 2010 respectively, 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.

Metered sales in December 2010 are 5306.31 MU against Order value (monthly) of 5284 MU and Unmetered sales (estimated) is 922.65 MU. Against the Order value (average monthly estimation) of 589 MU (estimated consumption of unmetered categories). It is explained by MSEDCL that the submitted value is based on actual meter reading taken on quarterly basis and includes correction of previous 2 months' assessed value. On this basis, the Commission has approved the submitted value, however, the vast difference between the monthly unmetered

consumption values needs improvement by changing to monthly readings rather than quarterly readings.

e) **Interest on working capital** –

MSEDCL has mentioned that 10.25% is the rate of Interest for working capital. However, no IWC has been claimed in the format 6.5 submitted for claiming the IWC incurred. Hence Interest on working capital has not been considered for the said month..

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 along with supportive documentation. Else it will be addressed through the Annual True-up.

f) **Adjustment factor**

The computation of Adjustment factor is as shown in the following table.

Adjustment Factor - December 2010

Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Adjustment for over-recovery/under-recovery ('B')		
1.1	Incremental cost allowed to be recovered in Month (September 2010)	Rs Lakh	12437.66
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (December 2010)	Rs Lakh	(24836.00)
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(12398.34)
2.0	Carried forward adjustment for over-recovery/ under-recovery attributable to application of ceiling limit	Rs Lakh	0
3.0	Adjustment factor for over-recovery/under-recovery	Rs Lakh	(12398.34)

g) **Transmission and Distribution Loss:**

Transmission Loss:

In the FAC submission, MSEDCL has reported Transmission loss in its system as 4.18%, against approved order value of 4.85%.

Distribution loss:

For the month December2010, MSEDCL has reported 16.84 % Distribution Loss. Thereby, the Cumulative Distribution loss upto the months December2 010 is 17.23 %, against approved Distribution loss of 17.20%.

As the reported distribution loss (cumulative upto the month) is more than the stipulated limit value, deductions of Rs 299 Lakhs, has been made from FAC charges of December2010.

i) **Energy Sales for within License area:**

The energy sales within licence area as submitted by MSEDCL for the months December-10, 6203.65 MU, and the same is approved by the Commission.

4. **Summary :**

The summary of the FAC amount as approved by the Commission for the month December 2010 is shown in the Tables below:-

At the above rate, total FAC amount of Rs (95.8549) Crores is to be refunded to the consumers in December 2010 at the rate of (15.45) Paise/kWh, and **NIL** amount to be carried forward for recovery at future date at the end of December 2010.

Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Calculation of FAC (A)		
	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	2809.85
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	(12398.34)
1.7	FAC (A) = C + I + B	Rs Lakh	(9588.48)
2.0	Calculation of FAC_{kWh}		
2.1	Sale within License Area	MU	6203.65
2.2	Excess T&D Loss	MU	1.94
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	(15.45)
2.4	Cap on monthly FAC Charge	Paise/kWh	37.75
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Rs/kWh	(0.1545)
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	(9585.49)
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	(2.99)
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	0.00

APPENDIX

Assumptions/Norms as per APR order for MSPGCL dated September 12, 2009 (Case 102 of 2009),

1. CAP on monthly FAC charge.

CAP on monthly FAC charge for FY 2010-11 works out to 37.75 paise per unit.

2 Summary of New Norms:

2.1 Purchases from MSPGCL:

Station	Net Gen (MUs)	Energy Charge as per Order (Rs/kWh)	Approved Heat Rate applicable for FY 2010-11 kCal/kWH	Approved Auxiliary Consumption for FY 2010-11 %
Khaparkheda	5,458.81	1.77	2559.9	9.74
Paras	337.45	1.82	3186.5	12.45
Bhusawal	2,946.27	2.1	2733.9	10.55
Nasik	5,394.24	2.22	2721.9	10.95
Parli	4,172.35	1.91	2744.6	11.15
Koradi	6015.64	1.61	2964.8	10.70
Chandrapur	14,898.24	1.56	2617	9.15
Paras -3	1,594		2500	9.0
Parli -6	1,594		2500	9.0
Uran	5745.20	1.68	1980	2.40

2.2 Purchases

Particulars	Approved MU Annual	Approved Variable Cost (Rs./kWh)
MSPGCL	50490	
Korba STP	5096	0.69
Vindhayanchal STP I	3395	1.02
Vindhayanchal STP II	2652	1.24
Vindhayanchal STP III	2211	1.45
KAWAS APM	1345	1.30
GANDHAR APM	1314	2.52
Farakka STPP-EP	129	2.23
Kahalgaon TPS-EP	61	2.50
Kahalgaon TPS-II	511	2.13
TSTPS-EP	84	1.01
Sipat Stage - II	2242	1.65
NTPC	19040	1.25
Kakrapar APP	368	2.15
Tarapur APP 1&2	1206	0.94
Tarapur APP 3&4	1934	2.73
NPCIL	3507	2.05
Saradar Sarovar Project	635	2.05
PENCH	240	2.05
U.I. CHARGES	0	3.00
DODSON-I	21	2.99
DODSON-II	43	
RGPPL	11000	2.88
TOTAL PP	23423	
NCE Sources	4114	
CPPs	392	