Ref. No: MERC/MSEDCL/FAC/08-09/

May 15, 2009

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

Sub: Levy of FAC by MSEDCL for June 08

Ref: MSEDCL Letter No. MSEDCL/CAS/FAC/50 dated 5th September, 08 and Letter No.80 dated February 6, 2009.

Sir,

Upon vetting the FAC calculations for the month of June 2008 submitted, vide letter under above reference; the Commission hereby approves the FAC for the month of June 2008.

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. The Commission has accorded post facto approval of FAC amount of Rs.29.91 Crore (net of T&D loss) for June 2008. The Commission has also considered refund of Rs.60.15 Crore (due to RGPPL) in June, 2008, which was not considered by MSEDCL. The summary of the claim of FAC for June 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 of June 2008 net of excess	Crore	91.55	29.91
	T&D Loss			
2.	FAC rate	Paise/kWh	19.10	6.24
3.	FAC rate (unmetered)	Rs/hp/month		
	-LT-Ag (>1300 hours per year)	Rs/hp/month	20.60	6.70
	-LT-Ag (<1300 hours per year)	Rs/hp/month	11.60	3.80

I am directed to forward herewith the detailed vetting and approval of the Commission on FAC charges for the month June 2008.

With regards,

Yours faithfully,

(P.B.Patil) Secretary, MERC

Encl: Detailed Vetting Report

Cc To: 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, 1st floor, Udyog Bhawan, Civil Lines, Nagpur 440 001.

A.D.Mahajan, Head- Advisory SICOM Limited Nirmal, 1st floor, Nariman Point, Mumbai-21

Detailed Vetting Report MSEDCL- FAC Charges for the month June 2008.

- 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 **June 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 vide its letter dated 5th September, 08 has forwarded FAC submissions as per formats with a charge @ 19.10paise/unit for metered sales. MSEDCL has also forwarded clarificatory letter dated 6th February, 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 APR 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 for the month of May 2007.

Station-wise based 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

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)
Nasik	5612	2.06	48.22	0.09	1.97
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 actual fuel cost in June, 2008 for 10 existing generating stations is considered at Rs.570.11 Crore and net generation is 3562 MU. Thus, actual average variable cost of generation is Rs.1.60 per kWh as against approved average variable cost of generation of Rs.1.37 per kWh. Normative fuel cost for June 2008 works out to Rs.526.50 Crore and the average normative variable cost of generation works out to @Rs.1.48 per kWh. However, 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 June 08 as considered by the Commission works out to be Rs.44.16 Crore ($3562 \times (1.60-1.48)/10$).

c. <u>Auxiliary consumption:</u>

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.

MSEDCL has purchased net 2349 MU with a variable cost of Rs 493.94 crore at average rate of Rs.2.10/kWh as against approved average variable cost of Rs.1.88/kWh from existing power purchase sources .MSEDCL has submitted the data for the power purchase certified by Chartered Accountant.

UI Charges:

MSEDCL has purchased (1) MU through UI at average rate of Rs. (12.96) / unit. 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 144 MU 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.

The Commission has approved change in Variable (Fuel) Cost of Generation and Power Purchase Cost (C) of Rs. 78.10 crore as against Rs. 79.60 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) -

The adjustment factor for over recover/under recovery as submitted by MSEDCL works out to be Rs. 11.96 Crore for the month June, 2008.

MSEDCL, in its earlier submissions, has not considered approved cost of RGPPL from August 2007 to January 2008, resulting in higher FAC Claim. The details are attached at

Annexure-I. Adjustment of this amount has been considered in the computation of June, 2008 by considering over recovery of Rs.60.15 Crore (in respect of December 2007). MSEDCL, in its submissions for June, 2008 had not considered refund of past over recovery of December, 2007 and this has been rectified by the Commission. Accordingly, The adjustment factor for over recover/under recovery as approved by the Commission works out to be (Rs. 48.20 Crore) for the month of June, 2008

- v) T & D Loss: The actual intra-state transmission loss is 5.28% against approved norm of 4.85%. The actual distribution loss is 15.87% against approved norm of 22.20% which is lower than the approved norm of 22.20%. Thus, there is no excess distribution loss in June 2008. MSEDCL further 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 at 4792 MU and the same is approved by the Commission.

Sr. No.	Parameter	Unit	MSEDCL	Approved by the Commission
(A)	(B)	(C)	(D)	
1.0	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	7,960	7,810
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	1,196	(4,820)
1.7	FAC (A) = C + I + B	Rs Lakh	9,155	2,991
2.0	Calculation of FAC _{kWh}			
2.1	Sale within License Area	MU	4,792.37	4,792.37
2.2	Excess T&D Loss	MU	-	-
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kW h	19.10	6.24
2.4	Cap on monthly FAC Charge	Rs/kWh	30.90	30.90
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Rs/kWh	0.19	0.06

The Commission hereby allows FAC amount of Rs. 29.91Crore for June 2008 as per details below:-

Sr. No.	Parameter	Unit	MSEDCL	Approved by the Commission
3.0	FAC (A)			
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	9,155	2,991
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	-
3.3	Carried forward FAC (A) for recovery during future	Rs Lakh	-	-
	period			

Approved FAC rate for unmetered consumers for June 2008 is as under:

FAC rate (unmetered)	Rs/hp/month	
-LT-Ag (>1300 hours per year)	Rs/hp/month	6.70
-LT-Ag (<1300 hours per year)	Rs/hp/month	3.80

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).

Station	Net	Energy	Energy	Heat rate	Auxiliary
	Gen	Charge as	Charge as	(kcal/kwh)	Consumption
	(MUs)	per Order	considered		
		(Rs/kWh	for FAC \$		
			(Rs/kWh)		
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%#

2 Summary of New Norms:

\$ 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

Month	FAC as submitted		FAC - Revised		Difference	Month of
	FAC	FAC	FAC	FAC (paise/	(Rs.	adjustment
	(Rs.Lakhs)	(paise/	(Rs.Lakhs)	unit)	Lakhs)	
		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	

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