

Ref. No. MERC/FAC/20112012/ 001955

Date :November 8, 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 June 2011,

Reference: MSEDCL's FAC submission of month June 2011 received vide MSEDCL/PP/FAC/L7/28499 of 20th September 2011

Sir

Upon vetting the FAC calculations for the month of June, 2011 submitted vide letter under above reference, the Commission has accorded post facto approval for charging to its consumers the FAC amount (net of excess T&D loss) of Rs. 268.8151 Crore for June 2011 as detailed below.

The Commission has notified on 28th January 2011 the Amendment Regulations for recovery of Fuel Adjustment Cost charges from the Consumers in a proportionate manner. Accordingly, the Commission has also approved the categorywise and slabwise tabulation for recovery of the said FAC charges by MSEDCL from its Consumers. The adjustments (positive or negative) arising out of the apportionment as above is to be carried forward by MSEDCL to the next month.

The Commission has observed the following discrepancies in the submission which need to be addressed:

- i) The Transmission loss for the month is shown as 1.69 %. This appears to be erroneous, and obviously attributable to some measurement or metering error.
- ii) As per IBSM output for June 2011, the Gross Hydro generation is 233.442 MU, however the same as shown in the FAC forms submitted by MSEDCL is, 205.67 MU, whereby an error of 27.772 MU is noticed.

Kindly address the above issues and submit your feedback to the Commission regarding your findings and measures taken to avoid such errors.

The summary of the FAC claim for June, 2011 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	389.8719
2	FAC recovered	Rs Crore	268.8151
3	FAC allowed to be carried forward to the next month for recovery in future	Rs Crore	121.0567
4	FAC rate	Paise/kWh	Proportionate. See Table-6A & 6B of Annexure attached with this letter
5	FAC rate (unmetered)		
	-LT-Ag (>1318 hours per year)	Rs/hp/month	
	-LT-Ag (<1318 hours per year)	Rs/hp/month	

Yours faithfully,

Sd/-
(Kuldip N. Khawarey)
Secretary, MERC

Encl : Annexure :Detailed Vetting Report for June, 2011

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.

Post Facto approval of FAC Charges for June 2011 submitted by MSEDCL

Reference: MSEDCL's FAC submission of month June 2011 received vide MSEDCL/PP/FAC/L7/28499 of 20th September 2011

1. FAC submission by MSEDCL:

- 1.1 Upon vetting the FAC calculations for the month of June 2011, 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 month as detailed below.

The Commission issued Tariff Order for MSPGCL, dated September 12, 2010 (Case 102 of 2009), for Truing up for FY 2008-09, Annual Performance Review for FY 2009-10 and Determination of Tariff for FY 2010-11.

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 issued Tariff Order for MSEDCL, dated September 12, 2010 (Case 111 of 2009), approving principles of Annual Revenue Requirement (ARR) and Tariff for FY 2010-11 and has also mentioned about the parameters and mechanism for computation of FAC.

The Commission issued a Review Order on 2nd December 2010 in the matter of Case 69 of 2010, "Application under Regulation 85 of the MERC (Conduct of Business) Regulations, 2004, by Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) seeking review of the Order dated 12th September, 2010 in Case No. 111 of 2009 in respect of MSEDCL's Annual Performance Review (APR) for FY 2009-10, true up for FY 2008-09 and ARR and Tariff Determination for FY 2010-11" whereby the Tariffs of various categories of Consumers were revised.

The Commission issued a Review Order on June 31, 2011 (Case 1 of 2011) pertaining to its Order dated September 12, 2010 in Case No. 102 of 2009 regarding approval of APR for the year 2009-10 and for determination of tariff and approval of ARR for the year 2010-11 of MSPGCL, whereby the Commission approved recovery of Rs 432.5 Crores from MSEDCL in a phased manner (monthly installment of Rs 72.08 Crores).

The Commission has notified on 28th January 2011 the Amendment Regulations for recovery of Fuel Adjustment Cost charges from the Consumers in a proportionate basis.

The Commission has taken cognisance of the directives issued in all the above orders and has accordingly approved FAC charges for the month of June 2011 in accordance with the principles stipulated therein and the MERC (Terms and Conditions of Tariff) Regulations, 2005. Any variance on account any further Reviews / Amendments will be addressed during the true-up.

Subsequent to the approval of the aggregate FAC amount, the Commission has also approved the apportionment of the said recovery from the consumers, based on the tariff categories and consumption slabs.

- 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:

2.1 Approval :

The Commission has accorded post facto approval for the FAC amount of (net of T & D loss), **Rs. 268.8151** Crores for the month June 2011. The summary of the FAC claim for June 2011 as approved by the Commission is shown in the Table below:-

Table -1

Sr No	Particulars	Unit	Approved
1	FAC incl of excess T&D Loss	Rs. Crore	389.8719
2	FAC recovered	Rs Crore	268.8151
3	FAC allowed to be carried forward to the next month for recovery in future	Rs Crore	121.0567
4	FAC rate	Paise/kWh	Proportionate. See Table-6A & 6B of Annexure attached with this letter
5	FAC rate (unmetered)		
5.1	-LT-Ag (>1318 hours per year)	Rs/hp/month	
5.2	-LT-Ag (<1318 hours per year)	Rs/hp/month	

After the apportionment, the under-recovered FAC amount to be carried forward to the next month, is Rs 121.0568 Crore

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

a) Generation by MSPGCL stations:

The Plant Load factor at MSPGCL Thermal power stations, except Khaparkheda TPS for the Month June 2011 was less than 80%.

As against approved generation of 4747.95 MU (all thermal, gas, Hydro plants, excl Parli 6 & Paras 3), the Actual gross generation was 3533.58 MU.

MSPGCL sold NIL MU energy in June 2011, from the “Retired” vintage plants at Koradi, Paras, Parli and Bhusaval..

b) Variable Cost of Generation:

MSEDCL has submitted the break-up of purchase price of different fuels for all stations of MSPGCL, 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 June 2011 for existing generating stations of MSPGCL as approved by the Commission after detail vetting, is shown in the Table below:

Table-2

Sr No	Detail	Unit	
1	Actual Fuel Cost	Rs Crore	720.4381
2	Normative Actual Fuel cost	Rs Crore	649.3145
3	Net Generation	MU	2994.71
4	Approved variable cost of generation (Order)	Rs./kWh	1.753767
5	Actual average variable cost of generation	Rs./kWh	2.41
6	Average Normative variable cost of generation	Rs./kWh	2.1682
7	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	124.0409

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 June 2011 are given below

Table-3

S.No	Details	Unit	June 2011
1	Net Energy Purchase	MU	4110.67
2	Variable Cost of Energy purchased	Rs Crore	965.91
3	Average Rate of energy purchased	Rs./kWh	2.35
4	Approved Rate for Energy purchase (Order)	Rs./kWh	2.31

NOTE :

i) It is to be noted that while cost of generation from MSPGCL's plants, has gone up **appreciably**, the cost of procurement of energy from outside slightly higher than the approved cost. The net average rate of energy has gone up due to expensive generation from MSPGCL's plants with respect to the approved rate and also due to procurement of **approx. 58% energy from outside**, at high rates

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

MSEDCL has sold 168 MU through UI at avg rate of Rs. 3.55 per kWh, in June 2011. The net cost of UI sale was Rs. 59.6063 Crore.

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

MSEDCL has claimed losses in power purchase through grid at (147) MU in June 2011 as the difference between the Scheduled Energy (including UI) and Actual sale.

The Commission has considered the losses in the grid as submitted by MSEDCL.

Metered sales in June 2011 are 5664.19 MU against Order value (monthly) of 5284 MU and Unmetered sales (estimated) is 800.781 MU. Against the Order value (average monthly estimation) of 589 MU.

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.

Table-4
Adjustment Factor – June 2011

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 (March 2011)	Rs Cr	As per table 6A & 6B And Table 5
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (June 2011)	Rs Cr	As per table 6A & 6B And Table 5
	C/f Diff of Last Month Due to Category wise and Slab wise FAC	Rs Cr	5.7938
	Impact of computation error regarding unmetered HP category >1318 Hrs in Feb-May 2011 FAC submissions as per Note below		101.64
1.3	Over-recovery/under-recovery (1.2-1.1)	Rs Cr	107.44
2.0	Carried forward adjustment	Rs Cr	
2.1	over-recovery/ under-recovery attributable to application of ceiling limit in prev month	Rs Cr	0
2.2	6 th Instalment of Recovery of Rs. 432 Cr. Permitted by the Commission vide Order of case 1 of 2011	Rs Cr	72.0833
3.0	Adjustment factor for over-recovery/under-recovery	Rs Cr	179.5234

NOTE : Regarding the amount 101.64 Cr shown at item above, MSEDCL has clarified that, while calculating FAC for the Months of February 2011 to May 2011, the Unmetered HP was considered as 3293862 for < 1318 Hrs category and 14173423 HP for >1318 Hrs. category in the statement No. 8.3 showing slab-wise categorywise distribution of FAC. As per detailed statement attached, the same is rectified as is 3725423 HP for > 1318 Hrs category in place of 14173423 HP stated above. Accordingly the Impact of FAC calculation is changed from February 11 to May 11 in statement No. 8.3 only and the total of the same, comes to Rs. 101.64 Crs which is shown in Statement 6.6 of June 2011.

4. **Transmission and Distribution Loss:**

Transmission Loss:

In the FAC submission, MSEDCL has reported Transmission loss in its system as 1.69%, against approved order value of 4.85%. This clearly indicates erroneous metering arrangements and needs to be addressed.

Distribution loss:

For the month June 2011, MSEDCL has reported 13.11 % Distribution Loss. Thereby, the Cumulative Distribution loss upto the month June 2011 is 17.32 %, against approved Distribution loss of 17.20%.

As the reported distribution loss (cumulative upto the month) is more than the stipulated limit value of Distribution loss for the FY, deductions of Rs 0.5210 Crore , has been made from FAC charges of June 2011

5. Energy Sales for within License area:

The energy sales within licence area as submitted by MSEDCL for the months June 2011, 6442.39 MU, and the same is approved by the Commission.

6. Summary :

The summary of the FAC amount as approved by the Commission for the month June 2011 is shown in the Tables below:-

The Commission has approved FAC chargeable in June 2011 as Rs 268.8151 Crore and has allowed to be carried forward to the next month for recovery, .Rs. 121.0568 Crore, arrived at as the sum of the following quantities:

- a) difference between FAC allowed to be recovered in March 2011 (month j-5) and the FAC actually recovered in June 2011
- b) difference between the FAC chargeable as per formula and that chargeable as per Order value on account of difference in MUs consumed by various categories with respect to Order values and
- c) excess amount above cap applied to any categories

Table-5

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	19111.23
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	17952.34
1.7	FAC (A) = C + I + B	Rs Lakh	37063.57
2.0	Calculation of FAC_{kWh}		
2.1	Sale within License Area	MU	6442.39
2.2	Excess T&D Loss	MU	9.07
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge (avg)	Paise/kWh	57.45
2.4	Cap on monthly FAC Charge (avg)	Paise/kWh	57.45
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Rs/kWh	As per Tables 6A, 6B
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge (avg)	Rs Lakh	37011.47
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	52.10
3.3	FAC actually charged in June 2011	Rs Lakh	26881.51
4.0	FAC Carried forward for Recovery at Future Date (Based on table 8.3 of FAC submission)		
4.1	FAC difference from HT category consumers carried forward for recovery to next month incl of prev months' under-recovery	Rs Lakh	7206.57
4.2	FAC difference from LT category consumers carried forward for recovery to next month incl of prev months' under-recovery	Rs Lakh	4899.11
4.3	Total FAC chargeable		38987.19
4.4	Total Carried forward FAC (A) for recovery in future period	Rs Lakh	12105.68

7. Recovery from Consumers :

As notified on 28th January 2011, vide Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) (Amendment) Regulations, 2011, the Commission has amended the Regulations applicable to recovery of FAC as follows :

“82.6 The monthly FAC charges of a particular tariff category/sub-category/consumption slab shall not exceed 10% of the variable component of tariff of that tariff category/sub-category/consumption slab, or such other ceiling as June be stipulated by the Commission from time to time.

Provided that any excess in the FAC charge over the above ceiling shall be carried forward by the Distribution Licensee and shall be recovered over such future period as June be directed by the Commission.

Provided further that in case of un-metered consumers, ceiling of FAC charges shall be calculated by multiplying the ceiling of FAC charges of metered sub-category by the ratio of Average Billing Rate (ABR) of respective un-metered sub-category to ABR of metered sub-category within the same tariff category.

“82.10. Calculation of FAC per kWh for a particular tariff category/sub-category/consumption slab shall be as per the following formula:

*$FAC_{Cat\ Rs/kWh} = (FAC / (Metered\ sales + Unmetered\ consumption\ estimates + Excess\ distribution\ losses)) * K * 10$*

Where:

$FAC_{Cat} = FAC$ for a particular tariff category/sub-category/consumption slab in ‘Rupees per kWh’ terms.

$K = (Energy\ Charge) / (ACOS)$

Where,

Energy Charge = Energy Charge for a particular tariff category / sub-category/ consumption slab under consideration in ‘Rupees per kWh’ as approved by the Commission in Tariff Order.

ACOS = Average Cost of Supply in ‘Rupees per kWh’ as approved for recovery by the Commission in Tariff Order.

Based on the above amendment, MSEDCL has calculated the “FAC apportioned to each Tariff Category and as per applicable slab”, which is tabulated below :

The applicable “K” factor for each category and tariff slab is calculated on the basis of the following figures arrived at from the above tables :

- Average FAC for consumers in Licensed area: paise 57.45 /kWH,
- Average cost of supply: Rs 4.55/kWH
- The energy charges shall be as approved by the Commission vide the Order of 2nd December 2010 in the matter of Case 69 of 2010.

It is seen from the tabulation that on an average MSEDCL has recovered Rs 268.8151 Crores and Rs 121.0568 Crores is carried forward to next month for recovery in future.

Table-6 A

Sr. No.	Categories	Approved energy charges	FAC TO BE CHARGED IN BILLING MONTH
A	LT Category	Rs/kWH	PAISA/KWH
1	Domestic (LT-I)		
A	BPL (0-30 Units)	0.82	8.20
B	Consumption > 30 Units per month		
i	1-100 Units	2.61	26.10
ii	101-300 Units	4.61	46.10
iii	301-500 Units	6.59	59.90
iv	500-1000 Units	7.65	74.95
v	Above 1000 Units	7.91	79.10
	Sub Total Domestic		
2	Non Domestic (LT-2)		
A	0-20 KW		
i	Educational institute and Hospitals		
a	0-200 Units	4.54	45.40
b	Above 200 units	6.33	63.30
ii	Others		
a	0-200 Units	4.75	47.50
b	Above 200 units	6.81	68.10
B	>20-50 KW	6.86	68.60
	>50 KW	8.86	88.60
3	Public Water Works (LT-III)		
A	0-20 KW	1.81	18.10
B	20-40 KW	2.34	23.40
C	40-50 KW	3.19	31.90
4	Agriculture (LT-IV)		
A	Unmetered Tariff		
1	Zones with Consumption norm < 1318 Hrs/HP/Annum 980 Hrs basis		
	A) 0-5 HP	2.16	13.16Rs/HP
	B) Above 5 HP	2.16	13.16Rs/HP
2	Zones with Consumption norm > 1318 Hrs/HP/Annum 1734 Hrs basis		
	A) 0-5 HP	2.53	27.28 Rs/HP

Sr. No.	Categories	Approved energy charges	FAC TO BE CHARGED IN BILLING MONTH
	B) Above 5 HP	2.53	27.28 Rs/HP
B	Metered Tariff (Including Poultry Farms)	1.62	16.20
5	LT Industries (LT-V)		
A	0-20 KW	4.12	41.20
B	Above 20 KW	5.70	57.00
	TOD Consumption		
	2200 Hrs-0600 Hrs		
	0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs		
	0900 Hrs-1200 Hrs		
	1800 Hrs-2200 Hrs		
6	Street Light (LT-VI)		
A	Grampanchayat A, B & C Class Municipal Council	3.27	32.70
B	Municipal corporation Area	3.90	39.00
7	Temporary Connection (LT-VII)		
A	Temporary Connection (Religious)	2.66	26.60
B	Temporary Connection (Other Purposes)	12.13	121.30
8	Advertising and Hording (LT-VIII)	16.88	168.80
9	Crematorium & Burial (LT-IX)	2.66	26.60

Table 6- B

Sr. No.	Categories	Approved energy charges	FAC TO BE CHARGED IN BILLING MONTH
		Rs/kWH	
	HT-I - Industries		
A	HT-I - Cont (Express Feeders)	5.56	55.60
B	HT-I - NonCont (Non Express Feeders)	5.06	50.60
C	HT-I - Seasonal Category	6.23	62.30
2	HT-II Commercial		
a	Express Feeder		
i)	Educaton Institute and Hospitals	8.07	80.70
ii)	Other	8.39	83.90
b	B) Non-Express Feeder		
i)	Educaton Institute and Hospitals	7.54	75.40
ii)	Other	7.86	78.60
3	HT-III Railways	6.12	61.20
4	HT-IV Public Water Works (PWW)		
A	Express Feeders	3.96	39.60
B	Non-Express Feeders	3.80	38.00
5	HT-V Agricultural	2.27	22.70
6	HT-VI Bulk Supply		
A	Residential Complex	3.93	39.30
B	Commercial Complex	6.65	66.50
9	Temporary Supply	10.12	101.20
	TOTAL HT Category	Rs Lakhs	146.2453
	TOTAL LT Category	Rs Lakhs	122.5698
	GRAND TOTAL	Rs Lakhs	268.8151
	Actual FAC to Be levied	Rs Lakhs	389.8719
	Under-recovery to be carried fwd to next month	Rs Lakhs	121.0568

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
KahalgaonTPS-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	