

Ref. No. MERC/FAC/20112012/ 02531

Date : 13th January 2012

To

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 August 2012 and September 2012,

Reference: MSEDCL's FAC submission of month August 2011 received vide MSEDCL/PP/FAC/L7/37940 of 26th December 2011 and for September 2011 received vide MSEDCL/PP/FAC/L7/37941 dated 26th December 2011

Sir

Upon vetting the FAC calculations for the month of August, 2011 and September 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. 252.4188 Crore for August 2011, and Rs. 259.4199 Crore for September 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 summary of the FAC claim for August, 2011 and September 2011 as approved by the Commission is shown in the Tables below:-

Table-1 (August 2011)

Sr No	Particulars	Unit	Approved
1	FAC incl of excess T&D Loss	Rs. Crore	477.89
2	FAC recovered	Rs Crore	252.4188
3	FAC allowed to be carried forward to the next month for recovery in future	Rs Crore	225.5603
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	

Table-2 (September 2011)

Sr No	Particulars	Unit	Approved
1	FAC incl of excess T&D Loss	Rs. Crore	633.90.51
2	FAC recovered	Rs Crore	259.4199
3	Under/over recovery from 6.6 statement 3.	Rs Crore	(39.6758)
4	FAC allowed to be carried forward to the next month for recovery in future	Rs Crore	365.46.95
5	FAC rate	Paise/kWh	Proportionate. See Table-6A & 6B of Annexure attached with this letter
6	FAC rate (unmetered)		
6.1	-LT-Ag (>1318 hours per year)	Rs/hp/month	
6.2	-LT-Ag (<1318 hours per year)	Rs/hp/month	

Yours faithfully,

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

Encl : Annexure :Detailed Vetting Report for August, & September 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 August 2011 submitted by MSEDCL

Reference: MSEDCL's FAC submission of month August 2011 received vide MSEDCL/PP/FAC/L7/37940 of 26th December 2011

1. FAC submission by MSEDCL:

- 1.1 Upon vetting the FAC calculations for the month of August 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.

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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.

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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 August 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. As power purchased from Korba III unit of NTPC is not in “approved sources” list, of the Tariff Order issued to MSPGCL, the total power purchase cost for the same is claimed through FAC. The payment of arrears already paid by MSEDCL to NTPC on account of revision of tariffs. have been vetted.

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. 260.6337** Crores for the month August 2011. The summary of the FAC claim for August 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	477.89
2	FAC recovered	Rs Crore	252.4188
3	FAC allowed to be carried forward to the next month for recovery in future	Rs Crore	225.5603
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After the apportionment, the under-recovered FAC amount to be carried forward to the next month, is Rs 225.5603 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, for the Month August 2011 was less than 80%. The highest PLF was of Khaparkheda TPS, which was 73.89%

As against approved generation of 4747.95 MU (all thermal, gas, Hydro plants, excl Parli 6 & Paras 3), the Actual gross generation was 2447.38 MU. (51.5 % of Approved generation apportioned for the month)

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 August 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	569.4312
2	Normative Actual Fuel cost	Rs Crore	453.6964
3	Net Generation	MU	2177.91
4	Approved variable cost of generation (Order)	Rs./kWh	1.744863
5	Actual average variable cost of generation	Rs./kWh	2.61
6	Average Normative variable cost of generation	Rs./kWh	2.083
7	Change in variable cost of generation = $\{(3) \times [(6)-(4)]\} / 10$	Rs. Crore	73.643195

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 August 2011 are given below

Table-3

S.No	Details	Unit	August 2011
1	Net Energy Purchase	MU	4645.56
2	Variable Cost of Energy purchased	Rs Crore	1148.553
3	Average Rate of energy purchased	Rs./kWh	2.47
4	Approved Rate for Energy purchase (Order)	Rs./kWh	2.31

c) Unscheduled Interchange (UI) Charges:

MSEDCL has procured 142 MU through UI at avg rate of Rs. 2.30 per kWh, in August 2011. The net cost of UI purchase was Rs. 32.5538 Crore.

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

MSEDCL has claimed losses in power purchase through grid at (222) MU in August 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 August 2011 are 5746.22 MU against Order value (monthly) of 5284 MU and Unmetered sales (estimated) is 889.60 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) Arrears of cost of Energy Procured

In its FAC submission for August 2011, MSEDCL has also included the amount it has paid to NTPC towards price variation of power procurement in year 2009-10, as follows :

Rs - 67.70 Crores towards variations in Variable cost

Rs. 92.71 Crores towards variation in Fixed Cost

Net Variation Rs. 25.00 Crores.

This is approved in line with the view taken in the FAC approval for July 2011

g). Adjustment factor

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

Table-4
Adjustment Factor – August 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 (April 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 (August 2011)	Rs Cr	As per table 6A & 6B And Table 5
1.3	C/f Diff of Last Month Due to Category wise and Slab wise FAC	Rs Cr	As per table 6A & 6B And Table 5
	Over-recovery/under-recovery	Rs Cr	
2.0	Adjustment for Tariff Revision	Rs Cr	25.0063
3.0	Adjustment factor for over-recovery/under-recovery	Rs Cr	25.0063

4. Transmission and Distribution Loss:

Transmission Loss:

In the FAC submission, MSEDCL has reported Transmission loss in its system as 2.48%, against approved order value of 4.85%.

Distribution loss:

For the month August 2011, MSEDCL has reported 8.86 % Distribution Loss. Thereby, the Cumulative Distribution loss upto the month August 2011 is 14.31 %, against approved Distribution loss of 17.20%.

As the reported distribution loss (cumulative upto the month) is less than the stipulated limit value of Distribution loss for the FY, no deductions has been made from FAC charges of August 2011.

5. Energy Sales for within License area:

The energy sales within licence area as submitted by MSEDCL for the months August 2011, 6592.51 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 August 2011 is shown in the Tables below:-

The Commission has approved FAC chargeable in August 2011 as Rs 252.4188 Crore and has allowed to be carried forward to the next month for recovery, .Rs. 225.56 Crore, arrived at as the sum of the following quantities:

- a) difference between FAC allowed to be recovered in May2011 (month j-5) and the FAC actually recovered in August 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)		
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	23799.80
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	2500.63
1.7	FAC (A) = C + I + B	Rs Lakh	26300.43
2.0	Calculation of FACKWh		
2.1	Sale within License Area	MU	6592.51
2.2	Excess T&D Loss	MU	-
2.3	FAC Charge (FACKWh) without considering cap on monthly FAC Charge	Paise/kWh	39.89
2.4	Cap on monthly FAC Charge	Paise/kWh	39.89
2.5	FAC Charge (FACKWh) considering cap on monthly FAC Charge	Rs/kWh	0.3989
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	26300.43
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-
3.3	FAC (A) charged as per 8.3 categorywise and slabwise	Rs Lakh	23373.12
3.4	C/f from Previous month	Rs Lakh	19185.58
3.5	Under/over recovery from 6.6 statement	Rs Lakh	5230.67
3.6	Total FAC to be charged in current month	Rs Lakh	47789.38
3.7	Actual FAC charged in current month categorywise and slabwise	Rs Lakh	25241.88
3.8	Carried forward FAC (A) for recovery during future period	Rs Lakh	22556.03

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 August 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 August 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 39.89 /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 account of Rs 191.85 Crore carried forward from the previous month, and Rs 25.0063 Crores towards arrears payment to NTPC, the total amount to be recovered has gone much beyond the 10% cap value. , MSEDCL has recovered Rs 260.6337 Crore through FAC and Rs 191.8558 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	65.90
iv	500-1000 Units	7.65	76.50
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	11.54Rs/HP
	B) Above 5 HP	2.16	11.54Rs/HP
2	Zones with Consumption norm > 1318 Hrs/HP/Annum 1734 Hrs basis		

Sr. No.	Categories	Approved energy charges	FAC TO BE CHARGED IN BILLING MONTH
	A) 0-5 HP	2.53	23.92 Rs/HP
	B) Above 5 HP	2.53	23.92 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	30.40
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	58.36
9	Temporary Supply	10.12	88.22
	TOTAL HT Category	Rs Lakhs	14791.09
	TOTAL LT Category	Rs Lakhs	10450.78
	GRAND TOTAL	Rs Lakhs	25241.87
	Actual FAC to Be levied	Rs Lakhs	47789.38
	Under-recovery to be carried fwd to next month	Rs Lakhs	22556.03

APPENDIX 1.1

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

1 Summary of New Norms:

1.1 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

1.2 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	

ANNEXURE 2
Detailed Vetting Report
Date: 13th January 2012

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6.1	-LT-Ag (>1318 hours per year)	Rs/hp/month	
6.2	-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 365.4695 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 coal fired Thermal power stations, for the Month September 2011 was less than 80%. The highest PLF was of Khaparkheda TPS, which was 62.06%

As against approved generation of 4747.95 MU (all thermal, gas, Hydro plants, excl Parli 6 & Paras 3), the Actual gross generation was 3027.83 MU. The Hydro generation was 756.21 MU instead of scheduled generation of 330.41 MU, to compensate for low generation of Thermal stations.

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 September 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	524.9199
2	Normative Actual Fuel cost	Rs Crore	418.3475
3	Net Generation	MU	4011.93
4	Approved variable cost of generation (Order)	Rs./kWh	1.744863
5	Actual average variable cost of generation	Rs./kWh	2.59
6	Average Normative variable cost of generation	Rs./kWh	2.0671
7	Change in variable cost of generation = $\{(3)X[(6)-(4)]\}/10$	Rs. Crore	129.279229

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 September 2011 are given below

Table-3

S.No	Details	Unit	September 2011
1	Net Energy Purchase	MU	4308.37
2	Variable Cost of Energy purchased	Rs Crore	1226.0373
3	Average Rate of energy purchased	Rs./kWh	2.85
4	Approved Rate for Energy purchase (Order)	Rs./kWh	2.31

c) Unscheduled Interchange (UI) Charges:

MSEDCL has procured 286 MU through UI at avg rate of Rs. 3.30 per kWh, in September 2011. The net cost of UI purchase was Rs. 94.4840 Crore.

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

MSEDCL has claimed losses in power purchase through grid at (294) MU in September 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.

The Commission has observed that Procurement from Power Exchanges and Unscheduled interchange of substantially high order, at high rate has been done during September 2011. However, it has been explained by MSEDCL that such procurements were necessitated due to much lower availability of power from MSPGCL during the month. This has also caused substantial rise in FAC for the month.

Metered sales in September 2011 are 5500.32 MU against Order value (monthly) of 5284 MU and Unmetered sales (estimated) is 545.25 MU (actual reading taken and averaged out with “estimated consumption” of past two months) against the Order value of 589 MU.

f) **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.

g). **Adjustment factor**

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

Table-4
Adjustment Factor – September 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 (April 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 (September 2011)	Rs Cr	As per table 6A & 6B And Table 5
1.3	C/f Diff of Last Month Due to Category wise and Slab wise FAC	Rs Cr	As per table 6A & 6B And Table 5
2.0	Carried forward due to formula error <u>See Note-1 below</u>		10220.49
	Over-recovery/under-recovery	Rs Cr	
3.0	Refund to non-beneficiary consumers of ZLS scheme <u>See Note-2 below</u>	Rs Cr	(1026.00)
3.0	Adjustment factor for over-recovery/under-recovery	Rs Cr	9194.49

Explanation provided by MSEDCL

Note-1: Consumer category wise and slab wise FAC calculations are being carried out w e f February 2011. For this purpose, Form 8.3 has been newly created in FAC submission. However, errors have occurred in the finalised FAC figures of June and July to the tune of Rs. 34.03 Crore and 38.89 Crore respectively, as the said figures in FAC Form 8.3 of those months were not linked to the FAC form 8.1 (final Form) of the respective months. These amounts, along with Rs 29.27 Crores C/F from August 2011 FAC calculation, add up to Rs 102.2049 Crore appearing at item 2.0 of Table 4 above.

Note-2 : Vide MERC Order in Case 23 of 2010 dated 30th November 2011, MSEDCL has been directed to recover Rs 92.38 Crores from the consumers benefitting from ZLS and pass the same to non-ZLS consumers through FAC. Accordingly Refund of Rs 10.26 Crore has appeared at Item 3.0 of Table 4 above.

4. Transmission and Distribution Loss:

4.1 Transmission Loss:

In the FAC submission, MSEDCL has reported Transmission loss in its system as 2.44%, against approved order value of 4.85%.

4.2 Distribution loss:

For the month September 2011, MSEDCL has reported 15.94 % Distribution Loss. Thereby, the Cumulative Distribution loss upto the month September 2011 is 14.31 %, against approved Distribution loss of 14.57%.

As the reported distribution loss (cumulative upto the month) is less than the stipulated limit value of Distribution loss for the FY, no deductions has been made from FAC charges of September 2011.

5. Energy Sales for within License area:

The energy sales within licence area as submitted by MSEDCL for the months September 2011, 5990.58 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 September 2011 is shown in the Tables below:-

The Commission has approved FAC chargeable in September 2011 as Rs 259.4199 Crore and has allowed to be carried forward to the next month for recovery, .Rs. 365.4696 Crore, arrived at as the sum of the following quantities:

- a) difference between FAC allowed to be recovered in June2011 (month j-5) and the FAC actually recovered in September 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)		
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	37836.75
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	9194.49
1.7	FAC (A) = C + I + B	Rs Lakh	47031.23
2.0	Calculation of FACKWh		
2.1	Sale within License Area	MU	5990.58
2.2	Excess T&D Loss	MU	-
2.3	FAC Charge (FACKWh) without considering cap on monthly FAC Charge	Paise/kWh	78.51
2.4	Cap on monthly FAC Charge	Paise/kWh	78.51
2.5	FAC Charge (FACKWh) considering cap on monthly FAC Charge	Rs/kWh	0.7851
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	47031.23
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-
3.3	FAC (A) charged as per 8.3 categorywise and slabwise	Rs Lakh	44802.02
3.4	C/f from Previous month	Rs Lakh	22556.03
3.5	Under/over recovery from 6.6 statement	Rs Lakh	(3967.58)
3.6	Total FAC to be charged in current month	Rs Lakh	63390.47
3.7	Actual FAC charged in current month categorywise and slabwise	Rs Lakh	25941.97
3.8	Carried forward FAC (A) for recovery during future period	Rs Lakh	36546.96

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 September 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 September 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 78.51 /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 account of Rs 225.5603 Crore carried forward from the previous month, over-recovery of Rs 39.67 Crore in the said month Month, and Rs 102.2049 Crore towards errors in the previous months’ formula, the total FAC amount has gone beyond 10% cap value. MSEDCL has recovered Rs 259.4197 towards FAC from its consumers and an amount of Rs 365.46 Crore has been 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)	0.81	8.10
B	Consumption > 30 Units per month		
i	1-100 Units	2.57	25.70
ii	101-300 Units	4.55	45.50
iii	301-500 Units	6.51	65.10
iv	500-1000 Units	7.55	75.50
v	Above 1000 Units	7.81	78.10
	Sub Total Domestic		
2	Non Domestic (LT-2)		
A	0-20 KW		
i	Educational institute and Hospitals		
a	0-200 Units	4.48	44.80
b	Above 200 units	6.25	62.50
ii	Others		
a	0-200 Units	4.69	46.90
b	Above 200 units	6.72	67.20
B	>20-50 KW	6.77	67.70
	>50 KW	8.75	87.50
3	Public Water Works (LT-III)		
A	0-20 KW	1.79	17.90
B	20-40 KW	2.31	23.10
C	40-50 KW	3.14	31.40
4	Agriculture (LT-IV)		
A	Unmetered Tariff		
1	Zones with Consumption norm < 1318 Hrs/HP/Annum 980 Hrs basis		
	A) 0-5 HP	2.13	13/HP
	B) Above 5 HP	2.13	13/HP
2	Zones with Consumption norm > 1318 Hrs/HP/Annum 1734 Hrs basis		

Sr. No.	Categories	Approved energy charges	FAC TO BE CHARGED IN BILLING MONTH
	A) 0-5 HP	2.50	26.,95 Rs/HP
	B) Above 5 HP	2.50	26.,95 Rs/HP
B	Metered Tariff (Including Poultry Farms)	1.6	16.0
5	LT Industries (LT-V)		
A	0-20 KW	4.06	40.60
B	Above 20 KW	5.62	56.20
	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	3.23	32.30
B	Municipal corporation Area	3.85	38.50
7	Temporary Connection (LT-VII)		
A	Temporary Connection (Religious)	2.62	26.20
B	Temporary Connection (Other Purposes)	11.98	119.80
8	Advertising and Hording (LT-VIII)	16.66	166.60
9	Crematorium & Burial (LT-IX)	2.62	26.20

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)	5.49	54.90
B	HT-I - NonCont (Non Express Feeders)	5.00	50.00
C	HT-I - Seasonal Category	6.14	61.40
2	HT-II Commercial		
a	Express Feeder		
i)	Educaton Institute and Hospitals	7.97	79.70
ii)	Other	8.28	82.80
b	B) Non-Express Feeder		
i)	Educaton Institute and Hospitals	7.45	74.50
ii)	Other	7.76	77.60
3	HT-III Railways	6.04	60.40
4	HT-IV Public Water Works (PWW)		
A	Express Feeders	3.91	39.10
B	Non-Express Feeders	3.75	37.50
5	HT-V Agricultural	2.24	22.40
6	HT-VI Bulk Supply		
A	Residential Complex	3.87	38.70
B	Commercial Complex	6.56	65.60
9	Temporary Supply	10.12	101.20
	TOTAL HT Category	Rs Lakhs	14524.37
	TOTAL LT Category	Rs Lakhs	11417.62
	GRAND TOTAL	Rs Lakhs	25941.99

APPENDIX 2.1

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

1 Summary of New Norms:

1.1 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

1.2 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	