

Subject – Revision in Electricity Tariff w.e.f. 1st September 2018

Reference – Commercial Circular No. 311, Mid-Term review order dated, 12.09.2018 in the case of 195 of 2017

The Maharashtra Electricity Regulatory Commission, in exercise of its power under Sections 61 and 62 of the Electricity Act (EA), 2003, and in pursuance of the MYT Regulations and all other powers enabling it in the behalf, and after taking into consideration MSEDCL's submission, the written and oral suggestions and objections received and the responses of MSEDCL, and all other relevant material, has issued Mid-Term Review Order dated 12 September, 2018 in Case No. 195 of 2017.

Accordingly, the guidelines as under are issued for replacement of the said order of the commission without prejudice to the rights of MSEDCL to take any actions as provides in the law.

Power Factor Incentive/Penalty:

In view of MERC Tariff order 195 of 2017 dt. 12.09.2018, Penalty for leading Power Factor is introduced, whereas incentive is applicable in case of lag PF only.

Penalty for leading power factor also introduced. This penalty will be applicable from prospective effect. As a first step towards the kVAh billing system, which is devoid of any separate incentive / penalty for power factor, the Commission has decided to reduce the existing PF Incentive/ Penalty by 50%. Accordingly, maximum PF Incentive, which is 7% at the Unity Power Factor, has been reduced to 3.5%. Similarly, Penalty for the lower power factor has been penalized.

Whenever the avg P.F. is more than 0.95 Lag and upto 1, an incentive shall be given at the rate of percentage in Tariff order at the amount of monthly electricity bill, excluding taxes and duties. And whenever average P.F. is less than 0.9 (Lead or Lag), Penal Charges shall be levied at the rate of percentage of amount of monthly electricity bill, excluding taxes and duties.

There is change in % of PF Penalty and Incentive as below.

Power Factor Incentive

Sl.	Range of Power Factor	Power Factor Level	Incentive
1	0.951 to 0.954	0.95	0%
2	0.955 to 0.964	0.96	0.5%
3	0.965 to 0.974	0.97	1.0%
4	0.975 to 0.984	0.98	1.5%
5	0.985 to 0.994	0.99	2.5%
6	0.995 to 1.000	1.00	3.5%

Power Factor Penalty

Sl.	Range of Power Factor	Power Factor Level	Penalty
1	0.895 to 0.900	0.90	0%
2	0.885 to 0.894	0.89	1.0%
3	0.875 to 0.884	0.88	1.5%
4	0.865 to 0.874	0.87	2.0%
5	0.855 to 0.864	0.86	2.5%
6	0.845 to 0.854	0.85	3.0%
7	0.835 to 0.844	0.84	3.5%
8	0.825 to 0.834	0.83	4.0%
9	0.815 to 0.824	0.82	4.5%
10	0.805 to 0.814	0.81	5.0%

PF Incentive/Penalty w.e.f. Sep-2018:

Now Power Factor will be computed taking into account both Lagging RKVAH and Leading RKVAH

- If PF Level is less than 0.90 then penalty shall be as per percentage given in MERC order.
- If PF Level is greater than 0.95 and RKHAV Lag consumption \geq RKVAH Lead consumption then incentive shall be as per percentage given in MERC order.
- If PF Level is greater than 0.95 and RKHAV Lag consumption $<$ RKVAH Lead consumption then incentive shall not be applicable.
- If the RKVAH Lead reading is not available then old procedure of PF computation will be followed.

Example:-

Case 1 (Rice Mill) Tariff – HT 1A

CURRENT CONSUMPTION DETAILS						
Reading Date	KWH	KVAH	RKVAH (LAG)	RKVAH (LEAD)	KW (MD)	KVA (MD)
Current 30-09-2018	85559.800	85981.600	2091.100	49727.800	27.500	27.500
Previous 31-08-2018	80508.300	80916.500	2012.800	46449.600		
Difference	5051.500	5065.100	78.300	3278.200		
Multiplying Factor	4.0000	4.0000	4.0000	4.0000	4.000	4.0000
Consumption	20206.000	20260.400	313.200	13112.800	110.000	110.000
LT Metering	0.000	0.000	0.000	0.000	0.000	0.000
Adjustment	0.000	0.000	0.000	0.000		
Assessed Consump	0.000	0.000	0.000	0.000		0.000
Total Consumption	20206.000	20260.000	313.000	13113.000	110.000	110.000

Power Factor will be computed as

$$PF = \frac{20206}{\sqrt{(20206)^2 + (313 + 13113)^2}}$$

PF = 0.833 (Power Factor Penalty 4%)

BILLING DETAILS					Amount in Rs.
Billed Demand (KVA)	155	@ Rs.	350	Demand Charges	54,250.00
Assessed P.F.		Avg. P.F.	.833	Wheeling Charge @ 0.78 Rs/U	15,760.68
Billed P.F.	.833	L.F.	11	Energy Charges	1,43,462.60
Consumption Type	Units	Rate	Charges Rs.	TOD Tariff EC	8,218.50
Industrial	20,206	7.1	143462.60	FAC @ 42 Ps/U	8,486.52
Residential	0	5.73	0.00	Electricity Duty	0.00
Commercial	0	11.5	0.00	Other Charges	0.00
E.D. on (Rs.)	Rate %	Amount Rs.		Tax on Sale @ 9.04 Ps/U	1,826.62
	9.3			P.F. Penal Charges/P.F. Inc.	9,207.13
	16			Charges For Excess Demand	0.00
	21			Bill as per MERC	2 41 212.05

Case 2 (Steel and Iron) Tariff – HT 1A

CURRENT CONSUMPTION DETAILS						
Reading Date	KWH	KVAH	RKVAH (LAG)	RKVAH (LEAD)	KW (MD)	KVA (MD)
Current 30-09-2018	3285825.000	3293771.000	61253.000	329997.000	68.500	68.400
Previous 31-08-2018	3239309.000	3247230.000	61037.000	325969.000		
Difference	46516.000	46541.000	216.000	4028.000		
Multiplying Factor	180.0000	180.0000	180.0000	180.0000	180.000	180.0000
Consumption	8372880.000	8377380.000	38880.000	725040.000	12330.000	12312.000
Add if L. T. Metering	0.000	0.000	0.000	0.000	0.000	0.000
Adjustment	0.000	0.000	0.000	0.000		
Assessed Consumption	0.000	0.000	0.000	0.000		0.000
Total Consumption	8372880.000	8377380.000	38880.000	725040.000	12330.000	12312.000

Power Factor will be computed as

$$PF = \frac{8372880}{\sqrt{(8372880)^2 + (38880 + 725040)^2}}$$

PF = 0.996 (Power Factor Incentive 0%)

BILLING DETAILS					Amount in Rs.
Billed Demand (KVA)	12312	@ Rs.	350	Demand Charges	43,09,200.00
Assessed P.F.		Avg. P.F.	.996	Wheeling Charges @ 0.15 Rs/U	12,55,932.00
Billed P.F.	.996	L.F.	93	Energy Charges	5,94,47,448.00
Consumption Type	Units	Rate	Charges Rs.	TOD Tariff EC	-18,73,368.00
Industrial	83,72,880	7.1	59447448.00	FAC @ 39 Ps/U	32,65,423.20
Residential	0	5.73	0.00	Electricity Duty	0.00
Commercial	0	11.5	0.00	Other Charges	0.00
E.D. on (Rs.)	Rate %	Amount Rs.		Tax on Sale @ 9.04 Ps/U	7,56,900.35
	9.3			P.F. Penal Charges / P.F. Incentive	0.00
	16			Charges For Excess Demand	0.00
	21			Bill as per MERC	6,71,61,543.55