Draft MERC (Multi Year Tariff) (First Amendment) Regulations, 2017

EXPLANATORY MEMORANDUM

26 October, 2017

1. BACKGROUND

1.1. The Maharashtra Electricity Regulatory Commission (MERC) (Multi Year Tariff) Regulations ('MYT Regulations'), 2015 were notified on 8 December, 2015 for the 3rd Control Period (FY 2016-17 to FY 2019-20), which superseded the MYT Regulations, 2011.

1.2. In pursuance of the MYT Regulations, 2015, the Commission has issued MYT Orders for Generation Companies, Transmission and Distribution Licensees, and the Maharashtra State Load Dispatch Centre (MSLDC).

2. NEED FOR AMENDMENT OF MYT REGULATIONS, 2015

2.1. Subsequent to notification of the MYT Regulations, 2015, there have been some developments which have a bearing on their provisions. Several Utilities and others have raised certain concerns, particularly on the provisions for Operation and Maintenance (O&M) expenses, during the tariff determination process and through Petitions, and sought relaxation or amendment in the specified norms. The Commission initiated a study on these issues and recent developments and engaged M/s Idam Infrastructure Advisory Pvt. Ltd. to assist it. Based on this study, Commission has now decided to amend its Regulations with regard to O&M expenses under Section 181 of the Electricity Act, 2003 read with Regulation 101 of the MYT Regulations, 2015. This Explanatory Memorandum accompanies the proposed draft amendments to the Regulations which has been published for public comment.

A. RBI Guidelines for Marginal Cost of Funds-based Lending Rate

2.2. As per the Reserve Bank of India (RBI) Guidelines dated 3 March, 2016 (updated on 29 March, 2016), new loans will be sanctioned only on the basis of Marginal Cost of Funds-based Lending Rates (MCLR):

> "*All rupee loans sanctioned and credit limits renewed w.e.f. April 1, 2016 shall be priced with reference to the Marginal Cost of Funds based Lending Rate (MCLR) which will be the internal benchmark for such purposes.*"

2.3. The MYT Regulations, 2015 link the normative interest rate of short term and long term loans to the Base Rate of State Bank of India (SBI). While SBI continues to notify its Base Rate, it will be relevant only for existing loans and all new loans will be based on the MCLR. The determination of the benchmark reference rate (Base Rate) as specified in the MYT Regulations affects the treatment of interest on working capital (IoWC), carrying cost/holding cost, interest on Security Deposit and the reference interest rate for normative long term loans since these are linked to the benchmark reference rate. Hence, the revision in the basis of the reference rate by the RBI Guidelines needs to be considered.

B. Petitions and submissions of Utilities on the O&M Expense provisions, and the Commission's Rulings

2.4. Through Petitions for review of their MYT Orders and other submissions, some Utilities have sought revisions in the O&M expense norms, in particular with regard to the following:

- Methodology of computation of O&M expenses for the Base Year (FY 2015-16) for the Distribution Wires and Retail Supply Business to be applied for approving the O&M expenses over the Control Period.

- Methodology for computation of the 'escalation rate' for subsequent years on the Base Year O&M expenses.

- Revision of the 'efficiency factor' to realistically reflect the potential for future efficiency improvements.

2.5. In some of its Orders on these Petitions, the Commission has stated that it would revisit the principles for computation of the allowable O&M expenses, which may require amending the MYT Regulations, 2015.

3. COMMISSION'S ANALYSIS AND PROPOSAL

A. INTEREST RATE

3.1. In pursuance of the RBI Guidelines, several major lender institutions, including public and private commercial banks like SBI, IDBI, etc., have shifted from the Base Rate to the MCLR for their benchmark interest rates for fresh lending.

3.2. Subsequent to the RBI Guidelines, interest rates have been decreasing, as will be seen from the past one-year trend of MCLR announced by SBI:

Date of Revision	Overnight MCLR	1 month MCLR	3 month MCLR	6 month MCLR	1 year MCLR	2 year MCLR	3 year MCLR
01-Oct-16	8.65%	8.75%	8.80%	8.85%	8.90%	9.00%	9.05%
01-Nov-16	8.65%	8.75%	8.80%	8.85%	8.90%	9.00%	9.05%
01-Dec-16	8.65%	8.75%	8.80%	8.85%	8.90%	9.00%	9.05%

Date of Revision	Overnight MCLR	1 month MCLR	3 month MCLR	6 month MCLR	1 year MCLR	2 year MCLR	3 year MCLR
01-Jan-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Feb-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Mar-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Apr-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-May-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Jun-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Jul-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Aug-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
01-Sep-17	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
Average	**7.98%**	**8.08%**	**8.13%**	**8.18%**	**8.23%**	**8.33%**	**8.38%**

3.3. In the MYT Regulations, 2015, for arriving at the rate of interest to be allowed on IoWC, carrying cost/holding cost and interest on Security Deposit, a spread of 150 basis points is allowed on the SBI Base Rate. This spread is not considered while determining the normative rate of interest for long term loans.

3.4. The Table below compares the effective rates of interest considering the SBI Base Rate and the SBI MCLR:

	SBI Base Rate	**MCLR for period of**						
		Over night	**1 month**	**3 months**	**6 months**	**1 year**	**2 years**	**3 years**
Date of Notification	w.e.f 1 July, 2017	w.e.f Sep 1, 2017						
Benchmark Rate	9.00%	7.75%	7.85%	7.90%	7.95%	8.00%	8.10%	8.15%
Spread as per MYT Reg.	1.50%	1.50%						
Final Rate	**10.50%**	**9.25%**	**9.35%**	**9.40%**	**9.45%**	**9.50%**	**9.60%**	**9.65%**

3.5. As will be seen from the above Tables, the SBI MCLR has been lower than the Base Rate.

3.6. The Commission also notes that, after 1st April 2016, Financial Institutions have lent funds to the electricity Utilities in Maharashtra at the following rates:

Utility	**Interest Rate for new Loans from 1st April 2016**
MSEDCL	9.58%
TPC	8.87%
MSPGCL	9.02%

These lending rates are lower than the Base Rate + spread provided for in the MYT Regulations, 2015.

3.7. Therefore, changes in the MYT Regulations, 2015 are required to reflect the prevailing interest rates. Hence, the Commission proposes to consider the MCLR declared by SBI from time to time as the Benchmark Rate.

3.8. However, SBI notifies MCLR for different tenures, viz. overnight to 3 years. The Benchmark Rate under the MYT Regulations, 2015 is used for working out the IoWC, carrying cost/holding cost, interest on Security Deposit and as the reference interest rate for normative long term loans. The Security Deposit and carrying cost/holding cost is generally assessed per annum. Similarly, the tenure of working capital loans ranges from a few months to a year, with most of such loans and interest assessed on an annual basis. The Central Electricity Regulatory Commission (CERC), in its Renewable Energy Tariff Regulations, 2017, has also considered the 1-year MCLR as the Benchmark Rate for determination of normative interest.

3.9. Considering the above, the Commission proposes to adopt the 1-year SBI MCLR as the Benchmark Rate, and has proposed amendments to its existing regulatory provisions accordingly.

B. PRINCIPLES OF DETERMINATION OF O&M EXPENSES

3.10. The Commission is revisiting the principles for determining the allowable O&M expenses in the MYT Regulations in respect of Distribution Licensees, the regulated Generation Utilities and the MSLDC.

3.11. In this context, the Commission notes that, for some years of the earlier 2^{nd} Control Period, the Commission had decided to deviate from its earlier regulatory provisions in case of some of Utilities. Thus, there had been some issues in determining normative O&M expenses in the 2nd Control Period also. Considering those issues, a different and simplified methodology was specified for the present 3rd Control Period in the MYT Regulations, 2015. Some aspects of this methodology are now being revisited.

Base Year

3.12. The MYT Regulations, 2015 specify the determination of Base Year O&M expenses taking the 3-year average for the period FY 2012-13 to FY 2014-15, and normalising that average by escalating it by 5.72% to arrive at the Base Year O&M expenses for FY 2015-16.

3.13. The present provisions result in an anomalous situation inasmuch as two separate figures of regulated O&M expense for FY 2015-16 are to be considered:

A. For the purpose of true-up for FY 2015-16, as per the norms under the MYT Regulations, 2011.

B. Derived/normalised figure for FY 2015-16 (the Base Year) as per the MYT Regulations, 2015

3.14. While the formulation for (A) above recognizes the growth in physical parameters upto the Base Year (FY 2015-16), the formulation for (B) does not recognize the growth in physical parameters over FY 2013-14 to FY 2015-16. It only considers an annual inflation factor of 5.72% p.a.

3.15. Some Distribution Licensees have raised concerns that this derived Base Year value used for projection of O&M expenses for future years was even lower than the expenses approved in the same MYT Order. The comparison of the O&M expenses for FY 2015-16 approved as per the provisional true-up and for FY 2015-16 derived as the Baseline for the MYT 3rd Control Period is as follows:

Regulated O&M Expense for FY 2015-16	**MSEDCL**	**BEST**	**RInfra-D**	**TPC-D**
Approved O&M Expenses for FY 2015-16 (provisional) as per MYT Regulations, 2011 (Rs. crore) #	6533	451	1020	161
Base Year O&M Expenses for FY 2015-16 as per MYT Regulations, 2015 (Rs. crore)	5741	489	1022	166

(# Note: Based on provisional approved figures for FY 2015-16; however, this would change based on the final approved true-up figures.)

3.16. The approved figures for FY 2015-16 will change depending on the true-up during the forthcoming Mid-Term Review (MTR) proceedings. Accordingly, the figures of Base Year O&M expenses for the 3rd Control Period will differ from those in the above Table. Since, at the time of the MTR, the actual figures for FY 2015-16 will be available, it would be appropriate to consider them for determining the Base Year figures.

3.17. Therefore, instead of the methodology specified in the current Regulations, it would be more appropriate to consider the final trued-up O&M expenses for FY

2015-16 as the Base Year for determining the expenses for the 3rd Control Period.

Escalation Rate

3.18. Several Utilities have sought amendment in the methodology for computation of the escalation factor. One of the main concerns is the weightage given to the Wholesale Price Index (WPI) – 60% - and Consumer Price Index (CPI) – 40% - for arriving at the inflation rate which underlies the escalation factor. This weightage of 60:40 is similar to the weightage specified by the CERC in its Tariff Regulations for FY 2014 - 19.

3.19. The Distribution Licensees have sought a revision in this weightage considering the higher contribution of employee expenditure in O&M expenses. The Commission reviewed the break-up of actual O&M expenses of each Distribution Licensee in this context, which was as follows:

Particulars	Average % of past 5 yrs	Component-wise Weightage		Resultant Weightage	
		CPI	WPI	CPI	WPI
MSEDCL					
Employee Expenses	**74%**	100%	0%	74%	0%
R&M Expenses	**14%**	0%	100%	0%	14%
A&G Expenses	**12%**	40%	60%	5%	7%
Total O&M Expenses	**100%**			**79%**	**21%**
RInfra-D					
Employee Expenses	**60%**	100%	0%	60%	0
R&M Expenses	**23%**	0%	100%	0%	23%
A&G Expenses	**18%**	40%	60%	7%	11%
Total O&M Expenses	**100%**			**67%**	**33%**
BEST Undertaking					
Employee Expenses	**66%**	100%	0%	66%	0
R&M Expenses	**10%**	0%	100%	0%	10%
A&G Expenses	**24%**	40%	60%	9%	14%
Total O&M Expenses	**100%**			**76%**	**24%**
TPC-D					
Employee Expenses	**36%**	100%	0%	36%	0
R&M Expenses	**13%**	0%	100%	0%	13%
A&G Expenses	**51%**	40%	60%	20%	31%
Total O&M Expenses	**100%**			**57%**	**43%**

3.20. The results after aggregating the O&M expenses of all the Distribution Licensees are as shown in the following Table:

All Distribution Licensees								
Particulars		**Average % of past 5 yrs**		**Component-wise Weightage**			**Resultant Weightage**	
				CPI	**WPI**		**CPI**	**WPI**
Employee Expenses		**70%**		100%	0%		70%	0
R&M Expenses		**15%**		0%	100%		0%	15%
A&G Expenses		**15%**		40%	60%		6%	9%
Total O&M Expenses		**100%**					**76%**	**24%**

3.21. Based on the above analysis, the Commission proposes to revise the weightage of WPI to 30% and of CPI to 70% for the Distribution Licensees.

3.22. The Commission notes that employee expenses have a higher share in the O&M expenses of MSLDC, as will be seen from the Table below. Hence, the weighted average inflation factor appropriate to MSLDC will be different from that of Distribution Licensees. The Commission proposes a 20% weightage for the WPI and 80% for CPI in respect of MSLDC.

Particulars	**Average %**	**Component-wise Weightage**		**Resultant Weightage**	
		CPI	**WPI**	**CPI**	**WPI**
MSLDC Employee Expenses	**70%**	100%	0%	70%	0%
R&M Expenses	**6%**	0%	100%	0%	6%
A&G Expenses	**24%**	40%	60%	10%	14%
Total O&M Expenses	**100%**			**80%**	**20%**

3.23. Under the Regulations, the escalation factor for O&M expenses from FY 2016-17 is worked out on the inflation factor considering 60% and 40 % weightage for actual point to point WPI and CPI, respectively, <u>'in the previous year',</u> reduced by an efficiency factor of 1%. Accordingly, in the last MYT Orders issued in 2016, the inflation factor worked out to 0.74% considering the actual point to point WPI and CPI variation in the immediately preceding year. After applying the efficiency factor of 1%, the escalation factor for projecting O&M expenses from FY 2016-17 worked out to (-) 0.26%. However, the Commission considered it inappropriate to apply this negative escalation factor for projecting the O&M Expenses from FY 2016-17 onwards as some expenses are likely to increase on a year-to-year basis in the ordinary course. Hence, in its MYT Orders, in exercise of its powers under Regulation 102 to remove difficulties, the Commission applied the 3-year average variation in WPI and CPI to arrive at the inflation factor for projecting O&M Expenses from FY 2016-17 onwards.

3.24. Continuous year-on-year fluctuations have been observed in recent years in the inflation indices. The variations over the past 10 years are shown in the Table below.

Financial Year	Annual WPI*	% Annual Change in WPI	Annual CPI	% Annual change in CPI
2007-2008	116.63	4.74%	133	6.20%
2008-2009	126.02	8.05%	145	9.10%
2009-2010	130.81	3.80%	163	12.37%
2010-2011	143.32	9.56%	180	10.45%
2011-2012	156.13	8.94%	195	8.39%
2012-2013	167.62	7.36%	215	10.44%
2013-2014	177.64	5.98%	236	9.68%
2014-2015	181.19	2.00%	251	6.29%
2015-2016	176.67	-2.49%	265	5.65%
2016-2017	183.20	3.70%	276	4.12%
Average from FY 2007-08 to FY 2016-17		**5.16%**		**8.27%**

3.25. In view of the above, the Commission believes it would be more appropriate to consider the WPI and CPI variation over a period longer than 1 year (as in the MYT Regulations, 2015) or even 3 years (as applied in the MYT Orders) so that wide fluctuations in any year or other short period are smoothened while arriving at the inflation factor. Accordingly, the Commission proposes to apply the previous 5-year average of these indices. (The CERC has also specified a period of 5 years, but applied the 5-year moving average of point to point inflation rate.)

Efficiency Factor

3.26. For projecting O&M expenses over the 3rd Control Period, the MYT Regulations, 2015 specify an efficiency factor of 1%. Some Utilities have contended that expecting such a large annual efficiency improvement is unrealistic and cannot be achieved. A 1% efficiency factor, when applied to derive the escalation factor of O&M expenses, would translate to 4% as the actual efficiency factor to be achieved over the Control Period.

3.27. However, the MYT Regulations, 2015 already have enabling provisions which allow the Commission to stipulate a different efficiency factor from time to time (for instance, under the first proviso of Regulation 45.1 (d)). Hence, the Commission is of the view that no amendment is required. Any modification required in the efficiency factor of 1% can be addressed in the respective Tariff Orders within the existing Regulations.

C. O&M EXPENSE NORMS FOR GENERATION UTILITIES

3.28. The above issues in the O&M expense norms are also relevant to Generation Utilities. Hence, the Commission also proposes to revisit the norms applicable to Generating Stations commissioned before August 26, 2005 and all the Hydro Generating Stations.

Base Year

3.29. The present methodology and issues in the computation of the Base Year O&M expenses with regard to Distribution Licensees (set out at paras. 3.12 to 3.14 above) are equally applicable to Generation Utilities. As in the case of Distribution Licensees, the Commission proposes to modify the Regulations in respect of projecting the Base Year O&M expenses for Generation Utilities also. Thus, for the Generating Stations (commissioned on or before 26 August, 2005 and all Hydro Generating Stations), the final Trued-Up O&M expenses of FY 2015-16 shall be taken as the Base Year O&M expenses for projecting them over the 3rd Control Period, since the Trued-up figures for each Utility would be based on the actual O&M expenses incurred during the respective years as per the annual audited accounts.

Escalation Factor

3.30. As in the case of Distribution Licensees, for Generation Utilities also the MYT Regulations, 2015 provide for escalation of normative O&M expenses with 60% weightage for WPI and 40% for CPI, reduced by a 1% efficiency factor (or other percentage that may be stipulated by the Commission). Regarding the weightage to be given to WPI and CPI, respectively, while computing the escalation factor, the Commission reviewed the shares of the components of O&M expenses of the regulated Generation Utilities for the past five years, as summarised in the following Table.

MSPGCL								
Particulars		**Average %**		**Component-wise Weightage**			**Resultant Weightage**	
				CPI	**WPI**		**CPI**	**WPI**
Employee Expenses		**40%**		100%	0%		40%	0%
R&M Expenses		**26%**		0%	100%		0%	26%
A&G Expenses		**34%**		40%	60%		14%	20%
Total O&M Expenses		**100%**					**54%**	**46%**

TPC-G					
Particulars	**Average %**	**Component-wise Weightage**		**Resultant Weightage**	
		CPI	**WPI**	**CPI**	**WPI**
Employee Expenses	**32%**	100%	0%	32%	0%
R&M Expenses	**50%**	0%	100%	0%	50%
A&G Expenses	**18%**	40%	60%	7%	11%
Total O&M Expenses				**39%**	**61%**

RINFRA-G (Dahanu)					
Particulars	**Average %**	**Component wise Weightage**		**Resultant Weightage**	
		CPI	**WPI**	**CPI**	**WPI**
Employee Expenses	**54%**	100%	0%	54%	0%
R&M Expenses	**22%**	0%	100%	0%	22%
A&G Expenses	**24%**	40%	60%	10%	14%
Total O&M Expenses				**64%**	**36%**

All Gencos					
Particulars	**Average %**	**Component wise Weightage**		**Resultant Weightage**	
		CPI	**WPI**	**CPI**	**WPI**
Employee Expenses	41%	100%	0%	41%	0%
R&M Expenses	28%	0%	100%	0%	28%
A&G Expenses	32%	40%	60%	13%	19%
Total O&M Expenses				**53%**	**47%**

3.31. Considering the above, the current weightage of 60:40 for WPI and CPI, respectively, for Generation Utilities needs revision. The Commission proposes to revise the WPI and CPI weightage ratio to 50:50.

3.32. As regards the past period on which the computation of the inflation factor applicable to Generation Utilities is based, the Commission also proposes to revise it as set out at paras. 3.24 and 3.25 above in respect of Distribution Licensees.

4. PROPOSED CLAUSE-WISE AMENDMENTS TO MYT REGULATIONS, 2015

4.1. In order to effect the changes discussed above, the Commission proposes to amend the following provisions of the MYT Regulations, 2015:

A. INTEREST RATE

4.2. The Commission proposes to amend **Regulation 2.1(10)**.

B. O&M NORMS FOR GENERATION UTILITIES

4.3. The Commission proposes to amend **Regulations 45.1 (b), 45.1 (c), 45.1 (d) and the proviso** for the Generating Stations/Units that achieved Commercial Operation Date before 26 August, 2005.

4.4. The Commission proposes to amend **Regulations 47.1 (a), 47.1 (b), 47.1 (c) and 47.2 (b) and the proviso** for all Hydro Generating Stations.

C. O&M NORMS FOR DISTRIBUTION LICENSEES

4.5. The Commission proposes to amend **Regulations 72.2, 72.3, 72.4 and the proviso** for the Wires Business and **Regulations 81.2, 81.3 and 81.4 and the proviso** for the Retail Supply Business of the Distribution Licensees.

D. O&M NORMS FOR MSLDC

4.6. The Commission proposes to amend **Regulations 93.2, 93.3, 93.4 and the proviso** in respect of the MSLDC.