

**MSLDC MYT Petition For Truing up for FY  
2017-18 & FY 2018-19, Provisional truing-up  
for FY 2019-20 and ARR forecast and  
determination of Fees and Charges For FY  
2020-21 to FY 2024-25**

**Submitted to: Maharashtra Electricity Regulatory Commission, Mumbai**

**By**

**Maharashtra State Load Despatch Centre**

**(Maharashtra State Electricity Transmission Company Ltd.)**

**Kalwa**

**MSLDC MYT Petition For**  
**Truing up for FY 2017-18 & FY 2018-19, Provisional truing-up**  
**for FY 2019-20 and**  
**ARR forecast and determination of Fees and**  
**Charges for FY 2020-21 to FY 2024-25**

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**November, 2019**

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## 1. Background

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Maharashtra State Load Despatch Centre (**MSLDC**) is the apex body for integrated operation of electricity grid in the State of Maharashtra and constituted under Section 31 of the Electricity Act (EA), 2003. MSLDC operates from two centres i.e. at Kalwa and Ambazari (Nagpur) in Maharashtra and has an additional sub-LDC in Mumbai, which was shifted to MSLDC Control room at Kalwa and being operated through separate desk.

The provisions mentioned in Section 31 of the EA 2003 are given below:

*“(1) The State Government shall establish a Centre to be known as the State Load Despatch Centre for the purposes of exercising the powers and discharging the functions under this Part.*

*(2) The State Load Despatch Centre shall be operated by a Government company or any authority or corporation established or constituted by or under any State Act, as may be notified by the State Government.*

*Provided that until a Government company or any authority or corporation is notified by the State Government, the State Transmission Utility shall operate the State Load Despatch Centre:*

*Provided further that no State Load Despatch Centre shall engage in the business of trading in electricity.”*

In accordance with the first proviso to Section 31(2) of the EA 2003, the Maharashtra State Electricity Transmission Company Limited (MSETCL), which is the State Transmission Utility (STU) in the State of Maharashtra, operates the MSLDC.

For the third control period, Hon’ble Commission (Maharashtra Electricity Regulatory Commission(MERC) notified the MERC (Multi Year Tariff) Regulations 2015(the MYT Regulations 2015) on 8 December, 2015 in exercise of the powers conferred by Section 181 read with Sections 36, 39, 40, 41, 51, 61, 62, 64, 65 and Section 86 of the Electricity Act, 2003. These Regulations are applicable for Control Period from 1 April, 2016 to 31 March, 2020. In accordance with the provisions of the MYT Regulations, 2011, Hon’ble Commission approved the ‘Truing-Up of Budget of Cost of Operations for FY 2014-15 and provisional Truing-Up for FY 2015-16. Whereas the Aggregate Revenue Requirement (ARR) forecast and determination of Fees & Charges for FY 2016-17 to FY 2019-20’ has been approved as per provisions under MYT Regulations 2015 in Case No 20 of 2016 in its order dated 22 July 2016. The truing -up of budget cost of operation for FY 2015-16 was approved under MERC MYT Regulations 2011. Whereas, ‘Truing up of Aggregate Revenue Requirement (ARR) for FY 2016-17, Provisional Truing-Up of ARR for FY 2017-18 and ARR forecast and determination of Fees & Charges for FY 2018-19 & FY 2019-20’, was approved by Hon’ble Commission as per provisions under MERC MYT Regulations 2015 in its order dated 12 September 2018 in Case No 171 of 2017.

Now, for the next control period, Hon’ble Commission, in exercise of the powers conferred by relevant clauses under Section 181 read with clause under Section 36, 39, 40, 41, 51, 62, 64, 65 and 86 of the EA, 2003, has published the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations,



2019 (the MYT Regulations 2019) on 1 August 2019. As per scope of these Regulations, Hon'ble Commission shall determine the ARR, Tariff and Fees and Charges, including terms and conditions thereof, in accordance with these Regulation for all matters for which the Hon'ble Commission has jurisdiction under EA, 2003, including MSLDC Fees and Charges. The control period of the MYT Regulations 2019 is five years' period, from April 1, 2020 to March 31, 2025, according to Regulations 2.1 (22) of the MYT Regulations 2019.

In accordance with Regulations 5.1 of the MYT Regulations 2019, the MYT Petition should contain the following:

- i) Truing-up for FY 2017-18 and FY 2018-19 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015;
- ii) Provisional Truing-up for FY 2019-20 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015;
- iii) Aggregate Revenue Requirement for each year of the Control Period (FY 2020-2021 to FY 2024-2025);
- iv) Revenue from the sale of power at existing Tariffs and charges and projected revenue gap for each year of the Control Period;
- v) Proposed category-wise Tariff or Fees & Charges for each year of the Control Period under these Regulations.

Therefore, in accordance with Regulations 5.1 of the MYT Regulations, 2019, MSLDC is filing present Petition for:

- Approval of Truing-up for FY 2017-18 and FY 2018-19;
- Approval of Provisional Truing-up for FY 2019-20; and
- Approval of ARR forecast for FY 2020-2021 to FY 2024-2025 and Determination of Fees and Charges for the same period.

MSLDC is filing this detailed MYT Petition for fourth Control Period, before the Hon'ble Commission and has made all efforts to provide the necessary data.

This Petition has following Chapters:

- **Section 1** presents the background of filing the Petition.
- **Section 2** elaborates the Approach.
- **Section 3 & Section 4** deal with Truing-up for FY 2017-18 and FY 2018-19, as per the MYT Regulations 2015, respectively.
- **Section 5** presents the estimation of Provisional Truing-up for FY 2019-20.
- **Section 6** describes the key performance of MSLDC during the third control period.

- **Section 7** provides ARR forecast for FY 2020-2021 to FY 2024-2025.
- **Section 8** deals with sharing of MSLDC Charges for the same period
- **Section 9** detailed the MSLDC fees and charges proposed under this Petition.
- **Section 10** presents the response of MSLDC on the 'Directives' given by Hon'ble Commission in its earlier orders.
- **Section 11** present the prayers made by the petitioner

## 2. Approach for the filing the MYT Petition

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The present filing for the truing-up for FY 2017-18 and FY 2018-19 is based on applicable provisions of the MERC (Multi Year Tariff) Regulations, 2015 (the MYT Regulations, 2015). The same Regulations have been referred for presenting the provisional truing-up for FY 2019-20. However, the ARR forecast for the control period of five years (FY 2020-2021 to FY 2024-2025) is prepared on the basis of the provisions given in the MERC (Multi Year Tariff) Regulations, 2019 (the MYT Regulations, 2019).

The truing- up for FY 2017-18 and FY 2018-19 is based on, audited account of MSLDC. Actual gain/loss on account of controllable factor, as per provisions of the MYT Regulations, 2015, has been factored in appropriately. The provisional truing-up is based on actual data available for April to September of FY 2019-20 and projected data for remaining period of the financial year.

For the purpose of forecasting the ARR components over the control period, the relevant provisions under the MYT Regulations, 2019 as well as the directives and approach considered by Hon'ble Commission in its earlier two orders (MSLDC MYT orders dated 22 July 2016 and MSLDC MTR Order dated 12 September 2018) were referred. Considering all the factors, the yearly revenue gap/surplus has been projected in the petition. As per the direction of Hon'ble Commission the utilization of Load Despatch Centre (LDC) Development Fund (LDCD Fund) has been appropriately indicated in this Petition.

The detailed methodology adopted for the preparation of the present MYT Petition is elaborated in the subsequent sections.

### 3. Truing-up for FY 2017-18

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#### 3.1. Common Approach for Truing-up

The truing-up exercise for FY 2017-18 and FY 2018-19 is based on Audited trial balance (TB) certified by statutory auditor and Allocation Statement prepared for FY 2017-18 and FY 2018-19 on the basis of audited TB. The Statutory Auditor certified the Financial Statements of MSETCL as a whole which includes financials of MSLDC. The audited TB (Annexure - 9) along with the Allocation Statement prepared for FY 2017-18 and FY 2018-19 has been attached for ready reference with this Petition as **Annexure - 2**.

According to Regulations 5.1 (c) of the MYT Regulations, 2015, truing-up for FY 2017-18 and FY 2018-19 has to be carried out according to the MYT Regulations, 2015. Also, as per Regulations 5.2 of the MYT Regulations, 2015:

*“The Petitioner shall submit separate audited Accounting Statements along with the Petition for determination of Tariff or Fees and Charges and Truing-up under these Regulations”*

Therefore, following the above provision, MSLDC humbly seeks final truing-up of all components for FY 2017-18 and FY 2018-19 as per the Audited Accounts/principles laid down in the Multi Year Tariff Regulation, 2015 on MSLDC's various heads of expenditure and revenue. Further, as per the provisions given in Regulations 5.2 of the MYT Regulations, 2019, the truing-up for FY 2017-18 and FY 2018-19 has been prepared based on the relevant provisions of MYT Regulations, 2015. The detailed format, as per the MYT Regulations, 2019, has also been attached to the Petition as **Annexure - 1**.

Further, all computations are also presented in spreadsheet data formats stipulated by the Commission for submission of MYT Petition, which are separately submitted in a computer readable file along with this Petition.

MSLDC has provided detailed rationale, considering the applicable Regulations, for truing up and key issues in the subsequent paragraphs.

#### 3.2. Operation & Maintenance Expenses

As per the definition of Operations and Maintenance Expenses (O&M Expenses), it includes expenditure on manpower, repairs, spares, consumables, insurance and overheads. So, O&M Expenses consist of following expenditure heads;

- a) Employee Expenses
- b) Administration and General Expenses
- c) Repairs and Maintenance Expenses

The detailed submission on the above expenses and the rationale for the expenses has been discussed in detail as follows:

## Employee Expenses

The employee expenses have been considered as per the Audited Account for FY 2017-18. Various components of employee expenses are given in details in the form 2.2 of petition format submitted as **Annexure- 1**. As per the method followed in MTR order (Case No 171 of 2017), the training expenses including TA/DA GL no 422070 (Rs 5.27 lakh) and remuneration for training expert GL no 421020 (Rs 2.88 lakh) reflected in the Trial Balance has been considered as part of A&G expenses. The expenses which are not mentioned anywhere under employee expenses have been clubbed as other expense.

The employee expenses approved by the Hon'ble Commission in MTR order (Case No. 171 of 2017) and actual employee expenses incurred by MSLDC as per audited statement of account are shown in table below:

**Table 1: Employee Expenses for FY 2017-18**

(Rs. Lakh)		
Particulars	Approved in MTR order (Case No 171 of 2017)	Actual
Employee Expenses	1410.21	1360.43

The actual employee expenses for FY 2017-18 are Rs. 1360.43 Lakh as per the audited accounts, which are marginally lower than Rs. 1410.21 Lakh approved by the Hon'ble Commission in its MTR order. The actual employee expenses include expenses for both Kalwa and Ambazari centers. While projecting employee expenses at time of MTR, the petitioner considered 129 numbers of staff for Q4, 109 number of staff for other 3 quarters, However, as per audited statement of account, the number of staff at the end of FY 2017-18 was 117.

MSLDC humbly requests the Hon'ble Commission to approve the employee expenses as claimed in this Petition. The details of Employee Expenses provided in **Form 2.2 of Petition Formats**, annexed as **Annexure 1**.

## Administrative and General Expenses

The Administrative and General Expenses (A&G) includes the following major heads:

- Rent, Rates and Taxes;
- Insurance;
- Revenue Stamp Expenses, Telephone, Postage & Telegrams;
- Legal Charges;
- Technical Fees, Consultancy and Other Professional Charges;
- Conveyance and Travel;
- Electricity charges;

- Vehicle Running Expenses i.e., Petrol and Oil & Vehicle Hiring Expenses;
- Security/Service Charges Paid to Outside Agencies for safety & protection;
- IT and Communication related expenses
- Other Charges:
  - Fee and Subscriptions - Books and Periodicals
  - Printing and Stationery
  - Advertisement Expenses
  - Water Charges
  - Upkeep of Office Premises
  - Miscellaneous Expenses

The actual A&G Expenses for FY 2017-18 as per audited accounts are Rs. 651.79 Lakh as against Rs. 543.02 Lakh approved by the Hon'ble Commission. The major components are electricity charges, advertisements, and office expenses. The increase in A&G expenses with respect to that of approved in MTR order is due to increase in advertisement expenses, cost of service procured & computer stationary and increase in deployment of security guard; number of security guard increase from 20 to 34 in FY 2017-18. The expenses towards computer stationary has been increased compared to FY 2016-17 due to the increase of cost of AMC services. The outsourced person salary component was not existing during FY 2016-17, whereas the same component cost Rs 14.03 Lakh during FY 2017-18. The cost of advertisement was Rs 106.41 as per audited statement of accounts, the same expense incurred in FY 2016-17 was negligible (Rs 15.92 Lakh). The difference of Rs 108.68 Lakh between the MTR approved A&G cost and actual expenses as per audited accounts may be approved by Hon'ble Commission. MSLDC request the Hon'ble Commission to approve A&G expenses for FY 2017-18 based on actual expenses.

The A&G Expense approved by the Hon'ble Commission in Case No. 171 of 2017 and actual A&G expenses incurred by MSLDC shown in Table below.

**Table 2: A&G Expense for FY 2017-18**

<b>(Rs. Lakh)</b>		
<b>Particulars</b>	<b>Approved in MTR order (Case No 171 of 2017)</b>	<b>Actual</b>
<b>A&amp;G Expenses</b>	543.02	651.79

As explained above in employee expenses head, remuneration for training has been considered as part of A&G expenses. Thus, to this extent, A&G Expenses claimed under Petition are higher than that appearing in Audited Allocation Statement.

The details of Administrative and General Expenses provided in Form F 2.3 of Petition Formats, annexed as **Annexure 1**.

### Repairs and Maintenance Expenditure

The actual R&M Expenses for FY 2017-18 as per the Audited Accounts are Rs.169.20 Lakh as against Rs. 193.00 Lakh approved in Case No. 171 of 2017 by the Hon'ble Commission.

The R&M Expense approved by the Hon'ble Commission in Case No. 171 of 2017 and actual R&M expenses incurred by MSLDC shown in the following Table:

**Table 3: R&M Expense for FY 2017-18**

(Rs. Lakh)		
Particulars	Approved in MTR order (Case No 171 of 2017)	Actual
R&M Expenses	193.00	169.20

The details of Repair and Maintenance Expenditure are provided in Form F 2.4 of Petition Formats.

The R&M expenses can be claimed under the following items:

- Plant & Machinery
- Buildings
- Civil Works
- Hydraulic Works
- Lines & Cable Networks
- Vehicles
- Furniture & Fixtures
- Office Equipment

The R&M expenses as reflected in the audited statement have been claimed in truing up purpose. The broad breakup of R&M expenditure incurred and as reported under the head of 'Plant & Machinery', attached separately in the **Annexure- 3**. The same has been prepared considering the expenditure at SLDC and ALDC (Nagpur).

### *Total O&M expenses*

Considering the above three expenses, the total Operation and Maintenance (O&M) expenses approved by the Hon'ble Commission for FY 2017-18 in Case No. 171 of 2017 and the actual expenses incurred by MSLDC as per Audited Accounts are summarized in Table as below:

**Table 4: O&M Expenses for FY 2017-18**

(Rs. Lakh)		
Particulars	Approved in MTR order (Case No 171 of 2017)	Actual
Employee Expenses	1410.21	1360.43
A&G Expenses	543.02	651.79
R&M Expenses	193.00	169.20
<b>Operation and Maintenance Expenses</b>	<b>2146.23</b>	<b>2181.42</b>

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 8.4 (a) specifies as under:

“8.4 .....

*(a) the approved aggregate gain or loss to the Generating Company or Licensee or MSLDC on account of controllable factors for the Years 2015-16 and 2016-17 and provisional Truing-up for the Year 2017-18, and the amount of such gains or such losses that may be shared in accordance with Regulation 11;”*

Further, as per Regulation 9 and Regulation 11 of the MYT Regulations, 2015, variation in O&M expense corresponding to approved value is categorized as controllable expenses and hence sharing is required. Thus, impact of sharing of gains/loss has been considered on this account for FY 2017-18 and the same is presented in the following table.

**Table 5: Sharing of Gains and Loss on account of O&M Expenses for FY 2017-18**

(Rs. Lakh)		
Particulars		Amount
O&M Expenses Approved under Case No. 171 of 2017	(a)	2146.23
Actual O&M expense	(b)	2181.42
Total Gain/(Loss) on account of controllable factors	(c)	(35.19)
Sharing proposed (two-third to be absorbed by MSLDC)	(d)	(23.46)
Entitlement to MSLDC	(b) + (d)	2157.96

### **3.3. Interest on Working Capital**

The expense towards interest on working capital (IoWC) has been calculated as per the provisions under MERC MYT Regulations 2015 and the subsequent amendment made to these regulations dated 29



November 2017. Regulations 31.5 of the MYT Regulations, 2015 specifies following methodology for computation of interest on working capital .

*“31.5 MSLDC: –*

*(a) The working capital requirement of the MSLDC shall cover –*

*(i) Operation and maintenance expenses for one month;*

*(ii) One and a half month equivalent of the expected revenue from levy of Annual Fixed Charges:*

*Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing-up before sharing of gains and losses ;*

*(b) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Fees and Charges is filed, plus 150 basis points:*

*Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points.*

*31.6 For the purpose of Truing-up for each year, the variation between the normative interest on working capital computed at the time of Truing-up and the actual interest on working capital incurred by the Generating Company or Licensee or MSLDC, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 11 :”*

MERC MYT Regulations 2015 amended on 29 November 2017 specifies the **Base Rate as one-year marginal cost of funds – based lending rate (MCLR)** as declared by the State Bank of India.

The methodology as specified above has been considered for calculation of Interest on Working Capital (IoWC) for FY 2017-18. The O&M expense as derived under true-up for FY 2017-18 has been considered. For computing receivables, the Annual Fixed Charges (AFC) excluding impact of sharing of gains and losses are considered.

Since the Hon’ble Commission in Case no 171 of 2017 has determined the weighted average interest rate on working capital for the concerned year (FY 2017-18) as 10.20%, the petitioner has considered the same interest rate for truing up of FY 2017-18.

The Interest on Working Capital approved by the Hon’ble Commission for FY 2017-18 in Case No. 171 of 2017 and normative interest on Working Capital as claimed by the petitioner is shown in Table below:

**Table 6: Interest on Working Capital for FY 2017-18**

<b>(Rs. Lakh)</b>		
<b>Particulars</b>	<b>Approved in MTR order (Case No 171 of 2017)</b>	<b>Claimed</b>
<b>Interest on Working Capital</b>	42.19	40.49

It is respectfully submitted that the IoWC shall be payable on normative basis notwithstanding that MSLDC has not taken any working capital loan from any outside agency. Hon'ble Commission in Case No. 171 of 2017 opined that as no actual IoWC has been paid, the entire amount would be considered as efficiency gain and would be shared as per Regulation 11 of MYT Regulations, 2015. So, the entire Rs. 40.49 Lakh gain is proposed to be shared as per Regulation 11 of the MYT Regulations, 2015. Therefore, Rs. 27.00 Lakh (two-third of IoWC) as shown in table below is proposed to be shared as efficiency gain.

<b>Particular</b>	<b>Claimed (Rs lakh)</b>	<b>Efficiency gain (Rs lakh)</b>	<b>Shared with beneficiary (Rs lakh)</b>	<b>Net entitlement (Rs lakh)</b>
<b>Interest on Working Capital</b>	40.49	40.49	26.99	13.50

### ***3.4.RLDC Fees and Western Region Power Committee (WRPC) Charges***

The charges towards RLDC Fees are being paid by MSEDCL against the invoices raised by RLDC to MSEDCL. After payment, MSEDCL claims that charges from MSLDC and the same are being paid by MSLDC to MSEDCL. The Central Electricity Regulatory Commission (CERC) has issued an Order in Case No. 241/TT/2015, dated 26<sup>th</sup>December, 2016 approving Fees and Charges of WRLDC for the FY 2014-15 to FY 2018-19.

Actual RLDC Fees paid during FY2017-18, as per audited account, is Rs. 128.66 Lakh as against Rs. 701.32 Lakh approved in Case No. 171 of 2017. The payments were made by MSLDC to MSEDCL as per invoices submitted during FY 2017-18.

MSLDC is exempted from payment of WRPC charges w.e.f. FY 2016-17 as per the minutes of 32<sup>nd</sup> TCC meeting of WRPC (**Annexure- 4**).

Therefore, corresponding amount towards WRPC charges was not reflected in its audited annual account for FY 2017-18 .

The actual payment made on account of RLDC Fees and WRPC Charges during FY 2017-18 was as follows:

**Table 7: RLDC Fee & WRPC Charges for FY 2017-18****(Rs. Lakh)**

<b>Particulars</b>	<b>Approved in MTR order (Case No 171 of 2017)</b>	<b>Actual</b>
RLDC Fees	701.32	128.66
WRPC Secretariat Charges	11.05	0.00
<b>Total</b>	<b>712.36</b>	<b>128.66</b>

Accordingly, MSLDC requests the Hon'ble Commission to approve RLDC Fees and WRPC Charges for FY 2017-18 on actual basis. The details of RLDC Fees and WPRC Charges are also provided in Form F 7 of Petition Formats.

### ***3.5.Capital Expenditure and Capitalisation***

MSLDC in its MTR Petition in Case No. 171 of 2017 projected a capitalisation of Rs. 362.89 Lakh for FY 2017-18 on provisional basis. The Hon'ble Commission had approved capitalisation of Rs. 362.89 Lakh for FY 2017-18 in the provisional true-up. However, the actual capitalization for FY 2017-18, as per audited account is Rs. 113.44 Lakh. The capital expenditure for the same period is Rs. 289.02 Lakh. The actual capitalisation and the breakup of actual capitalisation in terms of DPR and Non-DPR schemes is as shown in the Table below:

**Table 8: Capitalization for FY 2017-18****(Rs. Lakh)**

<b>Sr. No.</b>	<b>Project Title</b>	<b>Actual Capitalization</b>
<b>Non-DPR Schemes</b>		
<b>1</b>	RTU SCADA & DC	45.21
<b>2</b>	Implementation of Smart Grid Pilot Project	13.73
<b>3</b>	S/I/T/C and Configuration of UTM Firewall ( 2 Nos.) and Managed L3 Switch ( 2Nos.) at SLDC	37.50
<b>4</b>	Integration 765/400 KV Koradi S/s at SLDC Kalwa	9.78
<b>5</b>	Infrastructure development (Interior & Furnishing, Air-conditioning, Security Systems, Testing equipment & tools, Furniture, Auxiliary supplies, etc.)	7.21
<b>Total Capitalization</b>		<b>113.44</b>

MSLDC humbly submits that actual Capitalization in FY 2017-18 is lower than the Capitalization

approved by the Hon'ble Commission in Order in Case No. 171 of 2017. The reduction in capitalization as compared to approved figure in FY 2017-18 is attributable to delayed capitalization towards two DPR schemes, which got capitalized in the subsequent years. Five non-DPR schemes which have been completed and capitalized during the year are a) RTU SCADA & DC, b) Smart grid pilot project, c) Configuration of UTM Firewall (2 Nos.) and Managed L3 Switch (2 Nos.) at SLDC, d) Integration 765/400 KV Koradi S/s at SLDC Kalwa and e) infrastructure development. As regards capitalisation towards non-DPR schemes MSLDC would like to humbly submit that the schemes capitalised within MSLDC are mostly of low value schemes (less than Rs. 100 Lakhs), and includes capitalisation of items procured on an intermittent basis. MSLDC humbly requests the Hon'ble Commission to allow the actual capitalisation of Rs. 113.44 Lakh for FY 2017-18.

The details of the Capital Works in Progress (CWIP), actual Capital Expenditure and Capitalisation for FY 2017-18 are provided in Form F 3.3 of the Petition Formats, submitted along with this filing.

### **3.6.Depreciation**

The depreciation for FY 2017-18 has been computed considering the depreciation rates in accordance with the MERC MYT Regulations, 2015 on the basis of capitalization as per annual accounts of MSLDC submitted with this Petition. The assets capitalized have been identified along with the depreciation on the same.

MSLDC in its MTR Petition under Case No. 171 of 2017 has claimed a depreciation of Rs. 346.69 Lakh against which the Hon'ble Commission approved depreciation of Rs. 388.41 Lakh in the said Order. MSLDC submits that the actual depreciation for FY 2017-18 as per audited account is Rs. 240.17 Lakh, excluding IT equipment / software. The depreciation for IT equipment / software has been calculated separately @ 15% as per MYT Regulations, 2015 and the amount of the same is Rs. 105.35 Lakh. It is humbly submitted that the actual depreciation for FY 2017-18 considers the impact of the asset Computer Software/IT equipment which was recognized by the Hon'ble Commission as 'IT Equipment' and had approved the depreciation at 15% in accordance with the MYT Regulation, 2015. MSLDC further submits that the same has been considered under the IT Equipment and MSLDC has accounted depreciation at the same depreciation rate of 15% as approved by the Hon'ble Commission in Case No. 171 of 2017. The capitalization related to IT equipment and its depreciation has been given in details in Format F4 attached with this Petition. The details of depreciation claim are given below.

**Table 9: Depreciation for FY 2017-18**

(Rs. Lakhs)

Particulars	Approved in Case No. 171 of 2017	Actual
Depreciation	388.41	345.51

The details of the Gross Fixed Assets and depreciation for FY 2017-18 have been provided in Form F 4 of Petition Formats. It may please be noted that opening GFA as per audited TB and allocation statement has been considered for truing up of FY 2017-18, FY 2018-19, provisional true up of FY 2019-20 as well as

while projecting ARR for MYT period FY 2020-21 to FY 2024-25

### 3.7. Interest and Finance charges

The interest on the existing actual loan for MSLDC has been apportioned as Rs. 2.19 Lakh for FY 2017-18 from MSETCL's Books of Accounts as approved by Hon'ble Commission in Case No. 171 of 2017. The remaining loan in case of MSLDC is normative loan only.

For the purpose of estimation of Interest Cost corresponding to new loans for new Capital Expenditure Schemes, the Hon'ble Commission in its Order dated 16 May, 2006 under the Clause 29 had suggested to consider Interest Costs based on normative debt-equity of 70:30. The same provision is also given in MERC (Multi Year Tariff) Regulations, 2015. The same debt: equity ratio has been considered to calculate the addition to the normative loan amount for FY 2017-18. Further, MSLDC has considered the weighted average interest rate of the actual loan portfolio of MSETCL as communicated by MSETCL for computing the interest expenses for FY 2017-18. The details of existing loans allocated to MSLDC by MSETCL are as under:

**Table 10: Details of interest on existing loans allocated to MSLDC by MSETCL**

(Rs. Lakh)

Sr. No.	Particulars	FY 2017-18
	PFC Loan No. 21603009	
1	Opening Balance	28.36
2	Repayment during the Year	22.69
3	Closing Balance	5.67
4	Rate of Interest	11.00%
5	Interest Chargeable during the Year	2.19

The interest on loan, normative and actual, for FY 2017-18 is shown in below:

**Table 11: Interest on Loan for FY 2017-18**

(Rs. Lakh)

Particulars	FY 2017-18	
	Approved in Case No. 171 of 2017	Actual
Opening Balance of Net Normative Loan	1529.96	2228.14
Less: Reduction of Normative Loan due to retirement or replacement of assets		

Particulars	FY 2017-18	
	Approved in Case No. 171 of 2017	Actual
Addition of Normative Loan due to capitalisation during the year	254.02	79.41
Repayment of Normative loan during the year	388.41	345.51
Closing Balance of Net Normative Loan	1395.57	1962.03
Average Balance of Net Normative Loan		2095.09
Weighted average Rate of Interest on actual Loans (%)	10.28%	10.28%
Interest Expenses	150.37	215.37
Actual loan payment	2.19	2.19
<b>Total Interest &amp; Financing Charges</b>	<b>152.56</b>	<b>217.56</b>

MSLDC submits that the rate of Interest considered in the Petition is as per the interest rate of the actual loan borrowed from PFC by MSETCL and which was further allocated to MSLDC. MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Interest on Loan. The details of the interest of loan for FY 2017-18 have been provided in Form F 5 of Petition Formats. It may please be noted that opening normative loan as per GFA as given in audited TB and allocation statement has been considered for truing up of FY 2017-18, FY 2018-19, provisional true up of FY 2019-20 as well as while projecting ARR for MYT period FY 2020-21 to FY 2024-25

### ***3.8.Return on Equity***

MSLDC has worked out the Return on Equity (RoE) for FY 2017-18 in accordance with the Regulation 28 of the MYT Regulations, 2015. Further, as per debt: equity ratio considered above, 30% of the capitalization during a year has been considered for addition in equity during the same year. The provision as given in Regulation 32 is given below.

*"28. Return on Equity –*

*.....*

*28.2 Return on equity for the Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of 15.5 per cent per annum in Indian Rupee terms, .....*

*28.3 The return on equity shall be computed in the following manner: –*

*(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the*

*commencement of the Year; plus*

*(b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in generation Business or Transmission Business or Distribution Business or MSLDC, for such Year."*

MSLDC would like to submit to Hon'ble Commission that the Return on Equity for the FY 2017-18 have been calculated as per the capitalisation during the year as submitted above. Further, in accordance with the MYT Regulations, 2015, rate of 15.5% have been considered for computing RoE. Hence, the Return on Equity amount is Rs. 243.70 Lakh for FY 2017-18 against Rs. 199.62 Lakh approved in Case No. 171 of 2017.

The Return on Equity for FY 2017-18 is shown in Table as below:

**Table 12: Return on Equity for FY 2017-18**

Particulars	FY 2017-18	
	Approved in Case No. 171 of 2017	Actual
Regulatory Equity at the beginning of the year	1233.42	1555.24
Capitalisation during the year	362.89	113.44
Consumer Contribution and Grants used during the year for Capitalisation		
Equity portion of capitalisation during the year	108.87	34.03
Reduction in Equity Capital on account of retirement / replacement of assets		
Regulatory Equity at the end of the year	1342.29	1589.27
<b>Return on Equity Computation</b>		
Return on Regulatory Equity at the beginning of the year	191.18	241.06
Return on Regulatory Equity addition during the year	8.44	2.64
<b>Total Return on Equity</b>	<b>199.62</b>	<b>243.70</b>

MSLDC submits that RoE for FY 2017-18 is higher than approved RoE in Case No. 171 of 2017 because of difference of GFA. MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Return on Equity. The details of the Return on Equity for FY 2017-18 have been provided in

Form F 9 of Petition Formats.

It may please be noted that opening normative equity as per GFA as given in audited TB and allocation statement has been considered for truing up of FY 2017-18, FY 2018-19, provisional true up of FY 2019-20 as well as while projecting ARR for MYT period FY 2020-21 to FY 2024-25.

### ***3.9.Revenue True-up for FY2017-18***

For FY 2017-18, the Hon'ble Commission in Case No. 171 of 2017 had provisionally approved revenue of MSLDC on account of income from monthly operative charges of Rs. 1879.60 Lakh and on account of open access (OA) income of Rs. 1187.85 Lakh. Also non-tariff income for the same year was approved as Rs. 13.88 Lakh. During FY 2017-18, MSLDC has recovered the Fees and Charges as per the Order issued by Hon'ble Commission in Case No. 20 of 2016. MSLDC in actual earned 'Income from monthly operating charges' of Rs. 1881.19 Lakh and 'Income from OA Charges' of Rs. 1168.04 Lakh, for FY2017-18. Further, MSLDC has earned revenue of Rs.252.03 Lakh from Rescheduling charges in FY 2017-18. Also, Rs 10.92 Lakh has been accounted for rebate on prompt payment to transmission system users. Taking all together, total income by MSLDC for FY 2017-18 was Rs 3290.34 Lakh.

#### **Income from Reactive Energy Charges**

The petitioner has provided justification for non-inclusion of reactive energy charges in section 10.4 of Chapter 10: Directives.

### ***3.10. Non -Tariff Income***

As regards to non-tariff income, MSLDC has received major earning from interest on investment made in deposit in Bank and earn interest on such deposits. However, as directed by Hon'ble Commission in Case No. 171 of 2017, the interest on fixed deposit has not been considered while truing up. The non-tariff income considered for FY 2017-18 is Rs. 26.43 Lakh.

The observation of Hon'ble Commission for not considering the interest income is reproduced below.

*"5.11.2....this income is primarily on account of the fixed deposits created from the surplus available with MSLDC. As the Commission is considering the holding cost on this surplus available with MSLDC separately as discussed in para 6.13.4, the income on investments (fixed deposits) is not considered as part of the Non-Tariff Income as it would amount to deducting this amount twice from the ARR."*

The revenue of MSLDC in different head for FY 2017-18 is given below.

**Table 13: Revenue Components for FY 2017-18**

(Rs. Lakh)

Particulars	Approved in Case No. 171 of 2017	Actual
SLDC Revenue Components		



Non-tariff income	13.88	26.43
Income from OA Charges including scheduling charges	1187.85	1420.07
Income from monthly operating charges	1879.60	1881.19
Prompt payment rebate		(10.92)

The details of the income earned from various sources (including other receipts) for FY 2017- 18 is provided in Form F10 and F11 of Petition Formats.

### 3.11. Summary of True-Up for FY2017-18

In the Order in Case No.171 of 2017, the provisional true-up approved for FY 2017-18 was surplus of Rs. 101.80- Lakh. Based on the above submission, the actual expenditure against actual receipts and actual surplus is Rs. 489.24 Lakh is summarized in the table below.

**Table 14: Final True-Up for FY 2017-18**

(Rs. Lakh)

Sr. No.	Particulars	FY 2017-18		
		Approved in Case No. 171 of 2017	April-March (Audited )	True-Up requirement
		(a)	(b)	(c ) = (b) - (a)
1	Operation & Maintenance Expenses	2146.23	2181.42	35.19
2	Depreciation Expenses	388.41	345.51	(42.90)
3	Interest on Loan Capital	152.56	217.56	65.00
4	Interest on Working Capital	42.19	40.49	(1.70)
5	RLDC Fees and WRPC Charges	712.36	128.66	(583.70)
6	Reactive Energy Charges paid to Generators/TSUs			0.00
7	Income Tax			0.00
8	<b>Total Revenue Expenditure</b>	3441.76	2913.66	(528.10)
9	Return on Equity Capital	199.62	243.70	44.08
10	<b>Total Expenditure for MSLDC</b>	3641.37	3157.36	(484.01)
11	Less: Non-Tariff Income	13.88	26.43	12.55

Sr. No.	Particulars	FY 2017-18		
		Approved in Case No. 171 of 2017	April-March (Audited )	True-Up requirement
		(a)	(b)	(c ) = (b) - (a)
12	Less: Income from Open Access charges	1187.85	1409.15	221.30
13	Less: Income from Reactive Energy Charges			0.00
14	<b>Gross Annual Fixed Charges for MSLDC</b>	2439.64	1721.78	(717.86)
15	<b>Less: Impact of sharing of Gain / Loss</b>		50.46*	50.46
16	<b>Less: Adjustment</b>	661.84	661.84	0.00
17	<b>Annual Fixed Charges for MSLDC</b>	1777.80	1009.49	(768.31)
18	<b>Revenue approved/actual</b>	1879.60	1881.19	1.59
19	<b>Revenue gap/(surplus)</b>	(101.80)	(871.70)	(769.90)

\*2/3<sup>rd</sup> of loss of O&M (Rs 23.46 lakh) plus 2/3<sup>rd</sup> of gain on Interest on working capital (Rs 26.99 lakh)

Thus, on final truing up for FY 2017-18, there is surplus of Rs. 871.70 Lakh, treatment of which has been discussed subsequently in this Petition.

The petitioner has calculated holding cost of surplus available at the end of FY 2017-18 as given in the table below. It may be noted that the petitioner has not consider the impact of holding cost on ARR . Hon'ble Commission may take appropriate decision in this regard.

Particulars	Amount (Rs lakh)
Additional surplus after truing up of FY 2017-18	769.90
Average surplus during the year FY 2017-18	384.95
Interest rate	10.20%
Holding cost	39.27

## 4. Truing-up for FY2018-19

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MSLDC has prepared the true-up for FY 2018-19 as per provisions given in the MYT Regulation, 2015. The approach followed for truing-up for FY 2018-19 is same as followed in case of truing-up for FY 2017-18 as discussed in the previous section. The true-up petition is based on the Audited Accounts and Allocation Statement for FY 2018-19 that have been finalized & attached to the Petition as **Annexure- 2**. MSLDC, therefore, seeks true up of all components for FY 2018-19 as per the Audited Accounts and principles laid down in the Multi Year Tariff Regulation, 2015 of the Hon'ble Commission on MSLDC's ARR, as applicable for various heads of expenditure/revenue. Further, all computations are also presented in spreadsheet data formats stipulated by the Commission for submission of MYT Petition, which are separately submitted in a computer readable file along with this Petition. The formats have also been attached to the Petition as **Annexure- 1**.

MSLDC has provided detailed rationale for truing up and key issues in the subsequent paragraphs.

### *4.1.Operation &Maintenance*

In accordance with the MYT Regulations, 2015 the Operations and Maintenance (O&M) Expenses includes expenditure on manpower, repairs, spares, consumables, insurance and overheads. Broadly, O&M Expenses consist of following expenditure heads:

- a) Employee Expenses
- b) Administration and General Expenses
- c) Repairs and Maintenance Expenses

The detailed component of each above expenses considered by MSLDC is already explained in the previous chapter and so, not reproduced here. Based on the Audited Accounts prepared by MSLDC for FY 2018-19, the O&M expenses is Rs. 2296.81 Lakh as against Rs. 2471.36 Lakh approved by Hon'ble Commission in Case No. 171 of 2017. The actual Operations and Maintenance is marginally on the lower side compared to the approved O&M expenses given in Case No. 171 of 2017.

MSLDC also submits that as explained in section 3.2, the Training Expenses as given in audited accounts in Employee Expenses, is now included in the A&G Expenses for FY 2018-19. To this extent, variation exists in claimed and Audited figures of Employee expenses as well as A&G expenses.

Although the number employees decreased to 111 in FY 2018-19 compare to 117 during FY 2017-18, the employee cost is increased from Rs1360.43 lakhs to Rs 1507.05 lakh because of the following reasons (i) increase in DA in the tune of Rs 54.4 lakhs: DA was revised periodically as given below:

From 1st July 2017: 3% increase (136% to 139%)

From 1st January 2018: 3% increase (139% to 142%)

From 1st July 2018: 6% increase (142% to 148%)

From 1st January 2019: 6% increase (148% to 154%)

DA arrears from 1 January 2017 to 31 January 2018 was received in the salary of August 2018. Further arrears up to September 2018 was received in November 2018. So, DA arrears of 21 months was received in 2018-19 only and hence the higher DA expenses were reflected in FY 2018-19.

(ii) Earn leave encashment of Rs 53.50 in FY 2018-19 compare to Rs 15.02 lakh in FY 2017-18 as given below:

FY 2017-18	SLDC	ALDC	TOTAL
No of employee apply for leave encashment	17	4	22
Leave encashment (Rs lakh)	12.20	2.82	15.02
FY 2018-19	SLDC	ALDC	TOTAL
No of employee apply for leave encashment	47	17	64
Leave encashment (Rs lakh)	37.04	16.46	53.50

A&G expenses increased, due to (i) Increase in deployment of Security guard: In SLDC, Kalwa, number of security guard was 18 in FY 2018-19; whereas in FY 2017-18, 11 numbers of security guard were appointed for first five months, thereafter increased to 18 numbers. In case of ALDC, in 2017-18, initially 9 numbers of guard were appointed, which was increased subsequently. Higher number of security guards and the increase in their monthly expenses were responsible for higher expenses during FY 2018-19 compared to FY 2017-18. Also, outsourced ITI skilled employee expenses on contract basis also included in security expenses. (ii) Printing & Stationery expenses increased due to AMC of printers of Rs. 2.8 Lakh and stationary purchased of Rs. 1.51 Lakh.

The R&M expenses as per the audited statement have been claimed in truing up purpose. The broad breakup of R&M expenditure incurred and as reported under the head of 'Plant & Machinery', attached separately in the **Annexure- 3**. The R&M expenses on account of various civil works , server , AC systems, indoor substation , lift , CC TV are the major expenditure items during FY 2018-19.

The details of the actual Operation and Maintenance expenses incurred by MSLDC for FY 2018-19 are shown in the Table below:

**Table 15: Operation and Maintenance Expenses for FY 2018-19**

(Rs. Lakh)			
Sr. No.	Particulars	Approved in Case No. 171 of 2017	Actual
1	Employee Expenses	1655.86	1507.05
2	Administration and General Expenses	611.32	599.59
3	Repairs and Maintenance Expenses	204.18	190.17
<b>Total Operation and Maintenance Expenses</b>		<b>2471.36</b>	<b>2296.81</b>

The Operation and Maintenance (O&M) expenses approved by the Hon'ble Commission for FY 2018-19 in Case No. 171 of 2017 and the actual expenses incurred by MSLDC as per Audited Accounts are

summarized in Table as below:

**Table 16: Operation and Maintenance Expenses for FY 2018-19**

(Rs. Lakh)

Particulars	Approved in Case No. 171 of 2017	Actual	True-Up Requirement
Operation and Maintenance Expenses	2471.36	2296.81	(174.55)

#### Sharing of gain and loss on account of O&M expenses

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 8.4 (a) specifies as under:

“8.4 .....

*(a) the approved aggregate gain or loss to the Generating Company or Licensee or MSLDC on account of controllable factors for the Years 2015-16 and 2016-17 and provisional Truing-up for the Year 2017-18, and the amount of such gains or such losses that may be shared in accordance with Regulation 11;”*

Further, as per Regulation 9.2 of the MYT Regulations, 2015, variation in O&M expense corresponding to approved value are categorized as controllable expenses. The sharing mechanism on the same is given in the Regulation 11, as reproduced below.

“11. Mechanism for sharing of gains or losses on account of controllable factors –

*11.1 The approved aggregate gain to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner : –*

*(a) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;*

*(b) The balance amount of such gain shall be retained by the Generating Company or Licensee or MSLDC.*

*11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner: –*

*(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;*

*(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC.”*

Following the same principle, the impact of sharing of gains/loss has been considered for O&M expenses for FY 2018-19 and the same is presented in the following table. In FY 2018-19, the actual O&M expenses is lower than approved figure, that implies gain and thus sharing of gain has been explained below.

**Table 17: Sharing of Gains and Loss on account of O&M Expenses for FY 2018-19**

(Rs. Lakh)

Particulars		Amount
O&M Expenses Approved under Case No. 171 of 2017	(a)	2471.36
Actual O&M expense	(b)	2296.81
Total Gain/ (Loss) on account of controllable factors	(c)	174.55
Sharing proposed (two-third to be passed on as rebate by MSLDC)	(d)	116.37
Entitlement to MSLDC	(a) - (d)	2354.99

MSLDC humbly request the Hon'ble Commission to approve Operation and Maintenance expenses as claimed in this Petition for FY 2018-19.

Another important fact MSLDC wants to highlight before the Commission is about the pay revision, applicable from April 2018. The payment of arrears is being paid in FY 2019-20, and as per Hon'ble Commission earlier directive in this regard, MSLDC considers the arrear payment applicable to FY 2018-19 in FY 2019-20 only, when it has been scheduled to be paid. So, the pay revision impact related to FY 2018-19 has been reflected in the provisional true-up for FY 2019-20.

#### **4.2. Interest on Working Capital**

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 31 specifies as under:

*"31.5 MSLDC*

*(b) The working capital requirement of the MSLDC shall cover:*

*(i) Operation and maintenance expenses for one month;*

*(ii) One-and-a-half-month equivalent of the expected revenue from levy of Annual Fixed Charges:*

*Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;*

*(c) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Fees and*

*Charges is filed, plus 150 basis points:*

*Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points."*

MERC MYT Regulations 2015 amended on 29 November 2017 specifies the **Base Rate as one-year marginal cost of funds – based lending rate (MCLR)** as declared by the State Bank of India.

MSLDC has considered the aforementioned methodology specified in the MYT Regulations, 2015 for calculation of IoWC for FY 2018-19. MSLDC has computed IoWC, for FY 2018-19 by taking one month's Operation and Maintenance expenses and 1.5 months' receivables. For computing receivables, MSLDC has considered the AFC excluding impact of sharing of gains and losses, for FY 2018-19. Further, MSLDC submits that there is no actual loan borrowed for meeting its working capital requirements.

Regarding interest rate, MSLDC has considered the actual rate equivalent to 150 basis point margin over the State Bank of India (SBI) MLR prevailed during FY 2018-19 as specified under the MYT Regulations, 2015 amended on 29 November 2017 and the same is explained below.

**Table 18: SBI base rate (MCLR) prevailing during FY 2018-19**

SBI base rate applicable from	Base rate (%)
Weighted average MCLR	8.39
Applicable interest rate (MCLR +150 basis point)	9.89

The IoWC considered by MSLDC and approved for FY 2018-19 in Case No. 171 of 2017 are shown in the table below:

**Table 19: Interest on Working Capital for FY 2018-19**

(Rs. Lakh)

Particulars	Approved in Case No. 171 of 2017	Actual Claimed
Interest on Working Capital	39.43	48.04

#### **Sharing of gain and loss on account of IoWC**

It is respectfully submitted that the IoWC shall be payable on normative basis notwithstanding that MSLDC has not taken any working capital loan from any outside agency. Hon'ble Commission in Case No. 171 of 2017 opined that as no actual IoWC has been paid, the entire amount would be considered as efficiency gain and would be shared as per Regulation 11 of MYT Regulations, 2015. So, the entire Rs. 48.04Lakh gain is proposed to be shared as per Regulation 11 of the MYT Regulations, 2015. Therefore, **Rs. 32.03 Lakh (two-third of IoWC)** is proposed to be shared as efficiency gain, as shown in table below. The detailed computation of normative interest on working capital has been given in the Form 6



of Petition Formats.

Particular	Claimed (Rs lakh)	Efficiency gain (Rs lakh)	Shared with beneficiary (Rs lakh)	Net entitlement (Rs lakh)
Interest on Working Capital	48.04	48.04	32.03	16.01

#### 4.3.RLDC Fees & WRPC Charges

The RLDC Fees and WRPC Charges for the FY 2018-19 as per the Audited Accounts are Rs. 541.75 Lakh. The same is payment related to RLDC Fees only. As discussed for FY 2017-18 above, the WRPC charges are not being paid by MSLDC from FY 2016-17, as SLDCs are exempted from sharing the charges, and hence not reflected in the Audited Accounts for FY 2018-19. The actual payment and approved charges by Hon'ble Commission in Case No. 171 of 2017 is given below.

**Table 20: RLDC Fee & WRPC Charges for FY 2018-19**

Particulars	Approved in Case No. 171 of 2017	Actual	(Rs. Lakh)
			True- Up Requirement
RLDC Fees	747.51	541.75	
WRPC Secretariat Charges	11.78	0	
<b>Total</b>	759.29	541.75	(217.54)

MSLDC requests the Hon'ble Commission to approve RLDC Fees and WRPC Charges claimed for FY 2018-19 on actual basis. The details of RLDC Fees and WPRC Charges are also provided in Form F7 of Petition Formats.

#### 4.4.Capitalisation

Hon'ble Commission approved capitalisation of Rs. 1279.50 Lakh for FY 2018-19 in Case No. 171 of 2017. However, upon completion of the FY 2018-19, the actual capitalisation was Rs. 526.94 Lakh. The breakup of actual capitalisation as DPR and Non-DPR schemes is as shown in the Table below:

**Table 21: Actual Capitalization for FY 2018-19**

		(Rs Lakh)
Sr. No.	Project Title	Actual Capitalization
DPR Schemes		
1	Energy accounting System	49.73
2	S/I/T/C of Auto Fire suppression	263.79
Total DPR		313.52



Sr. No.	Project Title	Actual Capitalization
<b>Non-DPR Schemes</b>		
	Migration of FBSM Oracle	84.74
	Migration Load Star	63.94
5	Infrastructure Development (Interior & Furnishing, Air Conditioning, Security Systems, Testing equipment's & tools, Furniture, Auxiliary supplies, etc.)	64.74
<b>Total Non-DPR</b>		<b>213.42</b>
<b>Total Schemes Capitalization</b>		<b>526.94</b>

MSLDC submits that actual Capitalisation in FY 2018-19 is lower than the Capitalisation approved by the Hon'ble Commission in Order in Case No. 171 of 2017. The reduction in Capitalisation in FY 2018-19 is attributable to reduced Capitalisation towards few schemes that were proposed during FY 2018-19, which however are getting capitalised in the subsequent years. For example, capital expenditure for Hardware IT, Firewall server scheme, which is approved DPR scheme, was made during FY 2018-19; however, same will be capitalised in subsequent year. Several schemes planned earlier actually transferred in subsequent years and corresponding capital expenditure and capitalization has been claimed in the respective years. MSLDC humbly requests the Hon'ble Commission to allow the actual capitalisation of Rs. 526.94 Lakh for FY2018-19.

Regarding infrastructure development schemes, it is submitted that the schemes are low value schemes. Some significant schemes which are considered under capitalization of infrastructure development are given below.

**Table 22: Capitalization under infrastructure development for FY 2018-19**

Scheme details	Expenditure (Rs Lakh)
S/I/T/C of road blocker at SLDC	18.23
S/I/T/C of Hardware IT	17.87
Tower AC	14.51
Laptop	1.95
Wireless mike for conference Room	2.83
Wifi Communication Network for SLDC Building	1.96
Scanner	0.04
S/I/T/C of Server ALDC	14.58
Desktop PC ALDC	4.39
Electronic Boom barrier ALDC	1.42

The details of the actual Capitalisation, including details of capital works in progress (CWIP), for FY 2018-19 are provided in Form F 3.3 of the Petition Formats, submitted along with this filing.

#### 4.5.Depreciation

Hon'ble Commission in its order in Case No. 171 of 2017 opined the following regarding claim of depreciation, interest expenses and RoE for FY 2018-19 and FY 2019-20:

*“6.6.6 Further, as discussed subsequently, in para. 6.13 of this Order, the Revenue Surplus on Truing up of Budget for FY 2015-16, ARR for FY 2016-17 and provisional Truing up of ARR for FY 2017-18 as well as the past surplus approved vide MYT Order in Case No.20 of 2016 is considered for the creation of the LDC Development Fund which should be primarily used to undertake capital expenditure for technological up-gradation and system strengthening to meet the upcoming challenges. Accordingly, the addition to capitalisation approved for each of the FY 2018-19 and FY 2019-20 is considered to be funded from this LDC Development Fund which is effectively the Revenue Surplus generated from the money recovered from the Beneficiaries, hence, no depreciation, Interest expenses, RoE etc. is allowed on the same.”*

MSLDC humbly submits that the MSLDC prepares the present Petition following the directives of Hon'ble Commission with respect of utilization of LDCD fund and hence funding for capitalization during FY 2018-19 has considered from the proceeds accumulated in LDCD (Load Despatch Center Development) fund created by Hon'ble Commission in its order in Case No. 171 of 2017.

So, instead of considering actual depreciation for FY 2018-19 as reflected in its Annual account for FY 2018-19, MSLDC has computed depreciation for FY 2018-19 as per the rates given in the MERC MYT Regulations, 2015. The gross fixed asset (GFA) as on 1.04.2018 has been considered for calculation of depreciation for FY 2018-19, capitalization during FY 2018-19 has not been considered for depreciation calculation. The consumer software / IT equipment as capitalized in the previous years were also considered for depreciation @15%, as directed by Hon'ble Commission in its past orders. To this extent separate depreciation considered for Computer Software/IT equipment, same is presented in Form-4 attached with the petition. Thus, the variation in the value considered in Form-4 is derived depreciation and are not according to the allocation statement given for FY 2018-19.

MSLDC in its Petition under Case No. 171 of 2017 has claimed a depreciation of Rs. 383.48 Lakh against which the Hon'ble Commission approved depreciation of Rs. 397.12 Lakh in the said Order. Against the same, MSLDC submits that the depreciation for FY 2018- 19 claimed for truing up is Rs. 316.14 Lakh. The details are given below.

**Table 23: Depreciation for FY 2018-19**

**(Rs. Lakh)**

Particulars	FY 2018-19		
	Approved in ( Case No. 171 of 2017)	Actual	True-Up Requirement
Depreciation	397.12	316.14	(80.98)

MSLDC humbly requests the Hon'ble Commission to allow the depreciation of Rs. 316.14Lakh. The details of the Depreciation for FY 2018-19 are provided in Form F-4 of the Petition Formats, submitted along with this filing.

#### **4.6. Interest & Financial Charges**

The interest on the existing actual loan for MSLDC has been apportioned as Rs. 0.16Lakh for FY 2018-19 as per communication received from MSETCL . This was the last payment made for the existing loan. From FY 2019-20 onwards, all loans would be normative loan only.

For the purpose of estimation of Interest Cost corresponding to new loans for new Capital Expenditure Schemes, as per Regulation 26 of MYT Regulations 2015, the Interest Cost can be based on normative debt-equity ratio of 70:30. As explained above, the capitalization from FY 2018-19 is funded through LDC fund and hence, no new additional normative loan has been considered. Further, MSLDC has considered the interest rate as per weighted average rate of interest on MSETCL loan portfolio as communicated by MSETCL which is 10.04% during FY 2018-19.

The details of existing loans allocated to MSLDC by MSETCL are as under:

**Table 24: Details of Existing Loans allocated to MSLDC by MSETCL**

**(Rs. Lakh)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2018-19</b>
	PFC Loan No. 21603009	
1	Opening Balance	5.67
2	Repayment during the Year	5.67
3	Closing Balance	0.00
4	Rate of Interest	11.0%
	<b>Interest Chargeable</b>	<b>0.16</b>

The detailed calculation for the Interest on Normative Loan for FY 2018-19 shown below:

**Table 25: Interest on Loan applicable for FY 2018-19**

**(Rs. Lakh)**

<b>Particulars</b>	<b>MERC Order ( Case No. 171 of 2017)</b>	<b>Actual</b>
Opening Balance of Net Normative Loan	1395.57	1962.03
Less: Reduction of Normative Loan due to retirement or replacement of assets		

Particulars	MERC Order ( Case No. 171 of 2017)	Actual
Addition of Normative Loan due to capitalisation during the year		
Repayment of Normative loan during the year	397.12	316.14
Closing Balance of Net Normative Loan	998.45	1645.89
Average Balance of Net Normative Loan		1803.96
Weighted average Rate of Interest on actual Loans (%)	10.28%	10.04%
Interest Expenses	123.05	181.12
Actual loan payment	0.31	0.16
<b>Total Interest &amp; Financing Charges</b>	<b>123.36</b>	<b>181.28</b>

MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Interest on Loan. The details of the interest of loan for FY 2018-19 have been provided in Form F-5 of Petition Formats.

#### ***4.7.Return on Equity***

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 28 specifies as under:

#### *"28 Return on Equity*

*28.1...*

*28.2 Return on equity for the Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity capital shall be allowed on the amount of equity capital determined in accordance with Regulation 26 at the rate of 17.5 per cent per annum in Indian Rupee terms.*

*28.3 The return on equity shall be computed in the following manner:*

*(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus*

*(b) Return at the allowable rate as per this Regulation, applied on 50 per cent*

*of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year."*

MSLDC would like to submit to Hon'ble Commission that the Return on Equity for the FY 2018-19 has been calculated as per above norms. However, as explained earlier about normative equity has not been considered for FY 2018-19 as funding for capitalization is considered from LDC development fund. Further, in accordance with the MYT Regulations, 2015, RoE @ 15.5 % has been considered Hence, the Return on Equity would amounts to Rs.246.34 Lakh for FY 2018-19. The Return on Equity for FY 2018-19 is shown in Table below:

**Table 26: Return on Equity for FY 2018-19**

<b>(Rs. Lakh)</b>		
<b>Particulars</b>	<b>Approved in ( Case No. 171 of 2017)</b>	<b>Actual</b>
Regulatory Equity at the beginning of the year	1342.29	1589.27
Capitalisation during the year		526.94
Consumer Contribution and Grants used during the year for Capitalisation (LDC Fund)		526.94
Equity portion of capitalisation during the year		0.00
Reduction in Equity Capital on account of retirement / replacement of assets		
Regulatory Equity at the end of the year	1342.29	1589.27
<b>Return on Equity Computation</b>		
Return on Regulatory Equity at the beginning of the year	208.05	246.34
Return on Regulatory Equity addition during the year		0.00
<b>Total Return on Equity</b>	<b>208.05</b>	<b>246.34</b>

MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Return on Equity. The details of the Return on Equity for FY 2018-19 have been provided in Form F- 9 of Petition Formats.

#### ***4.8.Reactive Energy Charges Paid/ Income from Reactive Energy Charges***

The Annual Fixed Charges to be levied by the MSLDC as per the MYT Regulations, 2015 also has following components:

- a) Reactive Energy Charges paid to Generators/TSUs
- b) Income from Reactive Energy Charges

The Hon'ble Commission in its earlier order in Case 20 of 2016 and in Case No. 171 of 2017 had directed MSLDC to carry out its responsibilities with regard to levy/compensation of reactive energy charges, maintain accounts for the purpose and include or propose income/expenses from such charges for the determination of AFC.

In view of the above, MSLDC has taken up the issue of reactive energy balance and reactive energy pool settlement in the Grid Co-ordination Committee meeting. The development in this regard and recent status has been elaborated in the "Directives" Section of this Petition. Draft Reactive Energy Charges Mechanism has been submitted to Hon'ble Commission vide letter No. MSLDC/TECH/MERC/351, dated 27.02.2019 for approval. In the meantime, no income has been estimated for FY 2018-19 in this regard.

#### **4.9. Income Tax**

It is respectfully submitted that MSLDC has no separate corporate existence i.e., it is not a separate Company and is being operated by the Government Company, i.e., MSETCL. It is also submitted that the Government Company i.e., MSETCL, is also being regulated by this Hon'ble Commission. Further, MSLDC respectfully submits that the expenditure/income pertaining to SLDC activities is accounted separately in line with the Hon'ble Commission directives in the original Budget Order, for the purpose of regulatory reporting.

It is respectfully submitted that there is neither separate filing of Income Tax Returns in respect of MSLDC nor allocation/claim of Income Tax towards MSLDC by MSETCL. However, in future if such allocation/claims are formulated the MSLDC shall be able to claim in future period in accordance with provisions outlined under MERC MYT Regulations over control period. MSLDC humbly request the Commission to kindly grant liberty to undertake the same then. In view of above, MSLDC has not claimed Income Tax for the for FY 2018-19.

#### **4.10. Non-Tariff Income**

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 95 specifies as under:

*"95.1 The amount of Non-Tariff Income relating to the MSLDC as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Fees and Charges of the MSLDC:*

*Provided that the MSLDC shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

*The Non-Tariff Income shall include:*

- a) Income from sale of scrap;*
- b) Income from investments;*
- c) Interest income on advances to suppliers/contractors;*
- d) Income from rental from staff quarters;*
- e) Income from sale of tender documents;*
- f) Any other Non-Tariff Income:*

*Provided that the interest earned from investments made out of Return on Equity of the MSLDC shall not be included in Non-Tariff Income."*

MSLDC submits that the increase in the actual Non-Tariff Income for FY 2018-19 is due to the interest income earned on the Investment made by MSLDC in the past years. Vide BR No. 97/12 dated 2nd February, 2015 and subsequent note approved by MSETCL management dated 14 July, 2015, it was proposed that MSLDC should invest fund in flexi deposit in Bank and earn interest on such deposits. On account of such investments made by MSLDC in the past years, MSDLC earned an interest income. However, the interest income is not considered as non-tariff income as discussed in Case No. 171 of 2017. The same approach has been followed and MSLDC has considered income from miscellaneous receipts towards non-tariff income for FY2018-19. MSLDC humbly requests Hon'ble Commission to allow Non-Tariff Income as proposed by MSLDC. The details of the Non- Tariff Income for FY 2018-19 provided in Form F10 of Petition Formats.

**Table 27: Non-Tariff Income for FY 2018-19**

Particulars	(Rs. Lakh)		
	FY 2018-19		
	Approved in ( Case No. 171 of 2017)	Actual	True-Up Requirement
<b>Non-Tariff Income</b>	13.88	14.90	1.02

#### **4.11. Income from Open Access Charges**

As per the provisions given under the Multi Year Tariff Regulation 2015, MSLDC submits that the actual income from Open Access Charges of Rs. 1260.78 Lakh for FY2018-19 including Rescheduling Charges, as against Rs 1149.28 lakh approved by the Hon'ble Commission for FY 2018-19 in its MTR order in Case No. 171 of 2017. The rebate given to the consumers is also included in this income.

**Table 28: Income from Open Access charges for FY 2018-19****(Rs. Lakh)**

Particulars	FY 2018-19		
	MERC Order ( Case No. 171 of 2017)	Actual	True-Up Requirement
<b>Income from open access charges</b>	1149.28	1260.78	111.50

MSLDC humbly requests the Hon'ble Commission to approve Income from Open Access charges based on actual Audited Accounts. The details of the Income from Open Access for FY 2018-19 provided in Form F 12 of Petition Formats.

#### **4.12. Income from Monthly Operating Charges**

MSLDC has received actual income from Monthly Operating Charges of Rs. 1788.50 Lakhs for FY 2018-19 as against approved Monthly Operating charge of Rs. 1690.82 Lakh for FY 2018-19. MSLDC submits that Monthly Operating Charges for FY 2018-19 has been collected, as approved by Hon'ble Commission in its order in Case No. 171 of 2017, from September 2018 onwards. For earlier period during FY 2018-19, charges were collected in old rates, as approved in Case No. 20 of 2016. The details are given below.

**Table 29: Income from Monthly Operating Charges for FY 2018-19****(Rs. Lakh)**

	Approved in ( Case No. 171 of 2017)	Actual	True-Up Requirement
<b>Income from Monthly Operating charges</b>	1690.82	1788.50	97.68

The details of the Monthly Operating Charges for FY 2018-19 are provided in Form F-12 of Petition Formats.

#### **4.13. Summary of True-Up for FY 2018-19**

In the Commission's Order, in Case No.171 of 2017, the ARR forecast for FY 2018-19 was 1690.82 Lakh after incorporating the holding cost. Based on the above discussion, the head wise actual expenditure against actual receipts and surplus/ shortfall shown is summarized in the table below:

**Table 30: Truing -Up for FY 2018-19****(Rs. Lakh)**



Sr. No.	Particulars	FY 2018-19		
		Approved in Case no 171 of 2017	April to March (Audited)	Truing Up Requirement
1	Operation & Maintenance Expenses	2471.36	2296.81	(174.55)
2	Depreciation Expenses	397.12	316.14	(80.98)
3	Interest on Loan Capital	123.36	181.28	57.92
4	Interest on Working Capital	39.43	48.04	8.61
5	RLDC Fees and WRPC Charges	759.29	541.75	(217.54)
6	Reactive Energy Charges paid to Generators/TSUs			0.00
7	Income Tax			0.00
8	<b>Total Revenue Expenditure</b>	<b>3790.57</b>	<b>3384.02</b>	<b>(406.55)</b>
9	Return on Equity Capital	208.05	246.34	38.29
10	<b>Total Expenditure for MSLDC</b>	<b>3998.62</b>	<b>3630.36</b>	<b>(368.26)</b>
11	Less: Non-Tariff Income	13.88	14.90	1.02
12	Less: Income from Open Access charges	1149.28	1260.78	111.50
13	Less: Income from Reactive Energy Charges			0.00
14	<b>Gross AFC</b>	<b>2835.46</b>	<b>2354.68</b>	<b>(480.78)</b>
15	Add: Impact of sharing of gain / loss		26.16**	26.16
16	Less: Adjustment of Surplus*			0.00
17	Less: Carrying / (Holding) Cost	1144.65	1144.65	0.00
18	<b>Annual Fixed Charges for MSLDC</b>	<b>1690.82</b>	<b>1236.19</b>	<b>(454.63)</b>
19	<b>Revenue approved/actual</b>	<b>1690.82</b>	<b>1788.50</b>	<b>97.68</b>
20	<b>Standalone Revenue gap/(surplus)</b>	<b>0.00</b>	<b>(552.31)</b>	<b>(552.31)</b>

\* Adjustment of surplus for FY 2018-19 was Rs. 685.83 Lakh; the same surplus amount for FY 2018-19 as given in the MYT Order in Case No. 20 of 2016 is considered separately and is considered as part of the LDCD Fund created in its order of Case No. 171 of 2017.

\*\*1/3<sup>rd</sup> of gain of O&M (Rs 58.18 lakh) minus 2/3<sup>rd</sup> of gain on Interest on working capital (Rs 32.03 lakh)

Thus, on final truing up for FY 2018-19, there is surplus of Rs. 552.31 Lakh, treatment of which has been discussed separately in this Petition.

## 5. Provisional True-Up for FY 2019-20

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For projecting the provisional true-up figure for FY 2019-20, MSLDC follows the relevant provisions of the MYT Regulations, 2015. As per the Petition Formats stipulated by Hon'ble Commission, MSLDC considered actual un-audited expenses from April 2019 to September 2019 (6 months) for FY 2019-20 and estimates for various expenses and revenue for balance months for FY 2019-20.

### 5.1. Operation & Maintenance

The revised Regulatory provisions were made by Hon'ble Commission vide the MERC (Multi Year Tariff) (First Amendment) Regulations, 2017. The said amendment is reproduced as under:

*"93.1 The Operation and Maintenance expenses for the MSLDC shall be computed in accordance with this Regulation.*

*The Operation and Maintenance expenses shall be derived on the basis of the Final Trued-up Operation and Maintenance expenses after adding/deducting the sharing of efficiency gains/losses, for the year ending March 31, 2016, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year Operation and Maintenance expenses.*

*The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses for FY 2015-16 by an inflation factor with 20% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the past five years as per the Office of the Economic Advisor, Government of India and 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) for the past five years as per the Labor Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:*

*Provided that, in the Truing-up of the Operation and Maintenance expenses for any particular year of the Control Period, an inflation factor with 20% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the past five years (including the year of Truing-up) and 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five years*

*(including the year of Truing-up), as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, shall be applied to arrive at the permissible Operation and Maintenance Expenses for that year."*

As per the aforementioned amendment, for projection of O&M expense over the Control Period, base year O&M expense to be considered as FY 2015-16 true-up O&M expense upon which appropriate escalation factor as prescribed in the aforesaid provision with CPI: WPI weightage for 80: 20 has to be considered. Hon'ble Commission had already approved the true-up for FY 2016-17; and in this Petition, MSLDC proposes the true-up for FY 2017-18 and FY 2018-19. The actual O&M expenses for three years during the 3<sup>rd</sup> control period are available; hence for provisional true-up of FY 2019-20, MSLDC humbly requests Hon'ble Commission to consider the actual projected expenses, which actually considers the impact of wage revision.

### **Premise for projection of O&M expense for FY 2019-20 in the Present Petition**

MSLDC would like to humbly submit that O&M expense for the years FY 2019-20, would be influenced by the following key factors.

- a) **Impact of Wage Revision due on April 2018:** The wage revision agreement is made once in five years which has major impact in projection of employee expense as it is uncontrollable factor and is not captured in inflation. The agreement for wage revision is finalised where the revised wage is applicable w.e.f. from April 2018 (Relevant document is attached as Annexure - 5). Accordingly, the same has to be factored in while projecting O&M expense for FY2019-20. So, in FY 2019-20, for projecting the October 2019 - March 2020 employee expenses, new pay scale has been considered. Further, the arrears of 18 months (April 2018 to September 2019) are calculated, and the impact of the same is around 713.88 lakh. The arrears are proposed to be disbursed in the following manner - 2/3<sup>rd</sup> in FY 2019-20 and remaining 1/3<sup>rd</sup> in FY 2020-21. So, for projecting FY 2019-20 employee expenses, MSLDC consider the following - actual payment for first six months in old pay scale, payment for next six months as per revised pay scale and 2/3<sup>rd</sup> arrear payment.
- b) **A&G and R&M expenses:** considering the past six months' actual data (April - September 2019) and projection for next six months, A&G and R&M expenses have been calculated for FY 2019-20.

In this context, the expense of FY 2019-20 is projected as below. The Operation and Maintenance (O&M) expenses approved by the Hon'ble Commission for FY 2019-20 in Case No. 171 of 2017 and the expenses projected by MSLDC are summarized in Table as below:

**Table 31: O&M Expenses for FY 2019-20**

(Rs. Lakh)

Sr. No.	Particulars	FY 2019-20		Provisional True-Up Requirement
		Approved in Case No. 171 of 2017	April - March (Estimated)	
	O&M Expenses			
1	Employee Expenses	1878.23	2043.27	
2	A&G Expenses	680.06	542.67	
3	R&M Expenses	216.00	207.50	
	<b>Total O&amp;M Expenses</b>	<b>2774.29</b>	<b>2793.44</b>	<b>19.15</b>

The details of working for estimating H1 and H2 expenses for employee, A&G and R&M is given in MYT format ( form F2.1, 2.2 and 2.3)

MSLDC requests Hon'ble Commission to approve the above O&M expenses for FY 2019-20.

### ***5.2. Interest on Working Capital***

The methodology specified in the MERC MYT Regulations, 2015 and subsequent amendment dated 29 November 2017 has been considered for calculation of interest on working capital for FY 2019-20. It is respectfully submitted that the interest on working capital shall be payable on normative basis notwithstanding that MSLDC has not taken any working capital loan from any outside agency. The same approach was approved by Hon'ble Commission in its earlier orders. MSLDC submits that there is no actual loan borrowed for meeting its working capital requirements. For FY 2019-20, the SBI base rate (MCLR) prevailing as on the date of filing the petition with 150 basis point has been considered.

**Table 32: Interest on Working Capital for FY 2019-20**

(Rs. Lakh)

Sr. No.	Particulars	FY 2019-20		
		Approved in Case 171 of 2017	Estimated	True Up Requirements
<b>1</b>	<b>Working Capital Requirement</b>	593.94	628.32	
1.1	Rate of Interest (% p.a.) - SBI Base Rate (MCLR) plus 150 basis points	9.45%	9.55%	
1.2	<b>Interest on Working Capital</b>	56.13	60.00	3.87

### 5.3.RLDC Fees & WRPC Charges

RLDC Fees and Charges for FY 2019-20 will be decided as per Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019. WRLDC has filed a petition before Hon'ble CERC for determination of WRLDC charges for FY 2019-20 to FY 2023.24. MSLDC has observed that, as per the past data, share of MSLDC in total WRLDC charges is around 15%.

	WRLDC cost approved by CERC (Rs lakh)	MSLDC Cost (Rs lakh)	MSLDC share
<b>FY 2017-18</b>	3401.19	509.43	14.97%
<b>FY 2018-19</b>	3609.58	541.75	15.01%
<b>FY 2019-20</b>	5214.24	782.14 (calculated)	15.00%

Considering the same proportion, RLDC charges for FY 2019-20 have been estimated based on proposed WRLDC charges. The same is given below.

**Table 33: RLDC Fee & WRPC Charges for FY 2019-20**

Particulars	Approved in Case 171 of 2017	Estimated	(Rs. Lakh)
			True Up Requirements
RLDC Fees	796.75	782.14	
WRPC Secretariat Charges	12.55	0.00	
Total	809.30	782.14	(27.16)

Accordingly, MSLDC requests the Hon'ble Commission to approve RLDC Fees and WRPC Charges for FY 2019-20. The details of RLDC Fees and WRPC Charges are also provided in Form F-7 of Petition Formats.

### 5.4.Capital Expenditure Plan and Capitalization

Hon'ble Commission in Case No.171 of 2017 has approved capitalization amount of Rs. 2014.50 Lakh for FY 2019-20. MSLDC has now revised its capitalization estimates for FY 2019-20 considering capitalization anticipated of various existing as well as new schemes during the year. Accordingly, for the purpose of provisional truing up of FY 2019-20, MSLDC propose a revised estimate for capitalization to the tune of Rs. 1048.36 Lakh.

Capital Expenditure and Capitalization towards DPR and Non DPR schemes are presented in the table below.

**Table 34: Revised Capex and Capitalization for FY 2019-20**

**(Rs. Lakh)**

<b>Schemes</b>	<b>Status of In-principle Approval</b>	<b>Capital Expenditure</b>	<b>Capitalization</b>
<b>A) DPR schemes</b>			
S/I/T/C of Hardware IT, Firewall server	Approved		138.35
SLDC - SITC of 80 RTU	Approved	283.20	291.37
Construction of new UCR wall (Compound wall)	Approved	36.00	36.00
<b>NEW DPR Schemes</b>			
Development of Deviation settlement mechanism (DSM)	Approved	300	250
<b>B) Non-DPR Schemes</b>			
RE-DSM		27.49	27.49
STOA software		17.13	17.13
70 SAS/RTUs Integration			
Infrastructure development (Interior & Furnishing, Air-conditioning, Security Systems, Testing equipment's & tools, Furniture, Auxiliary supplies, etc.)		5.00	28.89
IT infrastructure		20.00	20.00
SCADA incidental		10.00	10.00
SITC of BARCO LED based display wall		95.13	95.13
Misc. items		224.00	134.00
<b>Total</b>		<b>1017.95</b>	<b>1048.36</b>

#### **Capitalization of non-DPR schemes over the Control Period**

As regards capitalization towards non-DPR schemes, the Hon'ble Commission has specified methodology in Regulation 23.6 of MERC MYT Regulations, 2015, which is reproduced as below:

*“The amount of capitalisation against non-DPR schemes for any Year shall not exceed 20% or such other limit as may be stipulated by the Commission through an Order, of the amount*

*of capitalisation approved against DPR schemes for that Year:*

*Provided that the Commission may allow capitalisation against non-DPR schemes for any Year in excess of 20% or such other limit as may have been stipulated by the Commission through Order, on a request made by the Generating Company or Licensee or MSLDC."*

MSLDC would like to again humbly submit here that a significant portion of schemes capitalised within MSLDC are of low value schemes (less than Rs. 100 Lakhs), and includes capitalisation of items procured on a continuous basis. Thus, considering the varied and intermittent nature of asset addition of lower value, it is difficult to prepare a DPR for the same.

In view of the above, and in accordance with the provision of the MYT Regulations, 2015, it is humbly requested that, the Hon'ble Commission may please allow the capitalization proposed towards non-DPR scheme as claimed in the present Petition and not apply the criteria of 20% in case of MSLDC.

MSLDC humbly requests the Hon'ble Commission to approve the revised Capital Expenditure and Capitalisation submitted above for FY 2019-20. As submitted for FY 2018-19, funds for capitalization for FY 2019-20 is proposed to be used from LDCD fund.

### **5.5.Depreciation**

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 27 specifies as under:

*"27.1 The Generating Company, Licensee, and MSLDC shall be permitted to recover depreciation on the value of fixed assets used in their respective Businesses, computed in the following manner:*

*(a) The approved original cost of the fixed assets shall be the value base for calculation of depreciation:*

*Provided that the depreciation shall be allowed on the entire capitalized amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalized assets.*

*(b) Depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure I to these Regulations:*

*Provided that the Generating Company or Licensee or MSLDC shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread*



*over the balance Useful Life of the asset including the Extended Life, as provided in this Regulation:*

*..."*

MSLDC submits that the capitalization during FY 2019-20 is assumed to be funded from LDCD fund; hence, the depreciation of asset capitalized during FY 2019-20 has not been considered. Depreciation for FY 2019-20 has been computed considering the depreciation rates in accordance with the MERC MYT Regulations, 2015 and asset addition up to FY 2017-18. While computing the Depreciation for FY 2019-20, SLDC has considered the depreciation towards the asset Scheme-Computer software/IT Equipment at a rate of 15% as approved by the Hon'ble Commission in Case No. 171 of 2017.

The projected Depreciation for FY 2019-20 is Rs. 277.71 Lakh as against the Commission's approved depreciation of Rs. 202.49 Lakh in Order in Case No. 171 of 2017. The revised depreciation for FY 2019-20 is estimated as below.

**Table 35: Depreciation for FY 2019-20**

Particulars	FY 2019-20		(Rs. Lakh)
	Approved in (Case No. 171 of 2017)	Revised Estimate	True up requirement
Depreciation	202.49	277.71	75.22

Accordingly, MSLDC humbly requests to approve the projected depreciation for FY 2019-20. The details of the Fixed Assets and depreciation for FY 2019-20 have been provided in Form F4 of Petition Formats.

### **5.6. Interest & Financial Charges**

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 29 specifies the method of calculation of interest and finance charges. The debt requirement for the proposed capital expenditure in the FY 2019-20 is envisaged to be funded by normative loans only, and no additional loan allocation from MSETCL has been considered for FY 2019-2020. However, as mentioned earlier, the capitalization is funded through LDCD fund; hence, no new additional normative loan has been considered. For the purpose of computation of interest expense for FY 2019-20, interest expense pertaining to normative loan for capitalization up to FY 2017-18 has been considered. Further, there is no outstanding actual loan allocated by MSETCL. MSLDC has considered the weighted average rate interest as approved by Hon'ble Commission in its order in Case No 171 of 2017 for FY 2019-20. In accordance provisions of the MERC MYT Regulations, 2015, the repayment of loan has been considered equivalent to depreciation claimed during the year, as derived above. The interest on Loan for FY 2019-20 is shown in Table as below:

**Table 36: Interest on Loan for FY 2019-20****(Rs. Lakh)**

Particulars	FY 2019-20		
	Approved (Case No. 171 of 2017)	Revised Estimate	True up requirement
Interest on Loan	92.23	152.51	60.28

**5.7. Return on Equity**

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 31 specifies as under:

**“28 Return on Equity**

28.1 ...

*Return on equity for the Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, return on equity capital shall be allowed on the amount of equity capital determined in accordance with Regulation 26 at the rate of 17.5 per cent per annum in Indian Rupee terms.*

*The return on equity shall be computed in the following manner:*

- (a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus*
- (b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year.”*

MSLDC has worked out the Return on Equity (RoE) for Control Period from FY 2019-20 in accordance with the aforementioned Regulations. However, as mentioned above, the capitalization is assumed to be funded from LDCD fund and hence, no new equity would be added during FY 2019-20. So, RoE projected for FY 2019-20 is based on the opening equity as on FY 2018-19 only and no new equity added owing to the projected Capitalisation during FY 2018-19 and FY 2019-20. MSLDC has considered RoE at rate of 15.5% on the opening equity. The projected RoE for FY 2019-20 is shown in the table below:

**Table 37: Return on Equity for FY 2019-20****(Rs. Lakh)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2019-20</b>		
		<b>Approved (Case No. 171 of 2017)</b>	<b>Estimated</b>	<b>Provisional True-Up requirement</b>
	<b>Return on Equity Computation</b>			
1	Return on Regulatory Equity at the beginning of the year	208.05	246.34	
2	Return on Regulatory Equity addition during the year		0.00	
	<b>Total Return on Equity</b>	208.05	246.34	38.29

MSLDC humbly requests the Hon'ble Commission to approve above Return on Equity as projected for FY 2019-20. The details of the Return on Equity for FY 2019-20 have been provided in Form F 9 of Petition Formats.

### ***5.8.Reactive Energy Charges***

In context of the detailed rationale provided in earlier chapter para no 4.8 and para no 10.4 regarding Reactive Energy income/expense, and since the mechanism for reactive energy settlement is being discussed and not finalized yet, MSLDC has not claimed any income/expense under this heads for FY 2019-20.

### ***5.9.Income Tax***

In context of MSLDC's submissions regarding Income Tax in the previous chapters, MSLDC has not claimed Income Tax for the FY 2019-20.

### ***5.10. Non-Tariff Income***

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015 under Regulation 95 specifies as under:

*"95.1 The amount of Non-Tariff Income relating to the MSLDC as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Fees and Charges of the MSLDC:*

*Provided that the MSLDC shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

*The Non-Tariff Income shall include:*

- a) Income from sale of scrap;*
- b) Income from investments;*
- c) Interest income on advances to suppliers/contractors;*
- d) Income from rental from staff quarters;*
- e) Income from sale of tender documents;*
- f) Any other Non-Tariff Income:*

*Provided that the interest earned from investments made out of Return on Equity of the MSLDC shall not be included in Non-Tariff Income."*

The non-tariff income is proposed to be same as approved by Hon'ble Commission in its order in Case No. 171 of 2017. As discussed, interest income has not been considered in this regard. The details of the Non- Tariff Income for FY 2019-20 have been provided in Form F11 of MTR Petition Formats.

**Table 38: Non-Tariff Income for FY 2019-20**

Particulars	FY 2019-20		
	Approved in (Case No. 171 of 2017)	Estimated	True-Up Requirement
<b>Non-Tariff Income</b>	13.88	13.88	0.00

MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Non- Tariff Income.

#### **5.11. Income from Open Access Charges**

MSLDC has estimated income from Open Access Charges of Rs. 1134 Lakh for FY 2019-20 against Rs. 1226.64 Lakh as approved in Case 171 of 2017. The same has been estimated based on the on actual revenue earned during first half of FY 2019-20 from open access charges and scheduling charges and rescheduling charges.

**Table 39: Income from Open Access charges for FY 2019-20**

Particulars	FY 2019-20		
	Approved in ( Case No. 171 of 2017)	Estimated	Prov. True- Up Requirement
<b>Income from open access charges</b>	1226.64	1134.00	(92.64)

### 5.12. Income from Monthly Operating Charges

MSLDC has estimated income from Monthly Operating Charges of Rs. 2901.97 Lakh for FY 2019-20 at the same level as approved by Hon'ble Commission in Case No. 171 of 2017.

**Table 40: Income from Monthly Operating Charges for FY 2019-20**

Particulars	FY 2019-20		
	Approved in ( Case No. 171 of 2017)	Estimated	Prov. True- Up Requirement
<b>Income from Monthly Operating Charges</b>	2901.97	2901.97	0.00

### 5.13. Summary of True-Up for FY 2019-20

Based on the above discussion, the head-wise projected expenses for FY 2019-20 for provisional true up are summarized in Table below:

**Table 41: Summary of Provisional True-up of FY 2019-20**

Sr. No.	Particulars	FY 2019-20		
		Approved in case 171 of 2017	April to March (Estimated)	Provisional Truing Up Requirement
1	Operation & Maintenance Expenses	2774.29	2793.44	19.15
2	Depreciation Expenses	202.49	277.71	75.22
3	Interest on Loan Capital	92.23	152.51	60.28
4	Interest on Working Capital	56.13	60.00	3.87
5	RLDC Fees and WRPC Charges	809.30	782.14	(27.16)
6	Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0.00
7	Income Tax	0.00	0.00	0.00
8	<b>Total Revenue Expenditure</b>	<b>3934.44</b>	<b>4065.80</b>	<b>131.36</b>
9	Return on Equity Capital	208.05	246.34	38.29

Sr. No.	Particulars	FY 2019-20		
		Approved in case 171 of 2017	April to March (Estimated)	Provisional Truing Up Requirement
10	Total Expenditure for MSLDC	4142.49	4312.14	169.65
11	Less: Non-Tariff Income	13.88	13.88	0.00
12	Less: Income from Open Access charges	1226.64	1134.00	(92.64)
13	Less: Income from Reactive Energy Charges	0.00	0.00	0.00
14	Annual Fixed Charges for MSLDC	2901.97	3164.26	262.29
15	Revenue approved/actual	2901.97	2901.97	0.00
16	Stand-alone Revenue gap/(surplus)	0	262.29	262.29

Thus, on Provisional Truing up for FY 2019-20, there is gap of Rs. 262.29 Lakh, treatment of which has been considered as part of the LDCD fund.

## 6. Operational performance of SLDC during the 3<sup>rd</sup> Control Period

MSLDC has been undertaking system operation for the past five decades in the State of Maharashtra. Over time, MSLDC has proven its technical competency in managing the system operation in the State and have strived to achieve performance excellence through, technology adoption, man-power development along with putting in place support system and procedures for its effective operation. SLDC is continuously working towards effectively coping up with the fast changing operational dynamics of the power system and in overcoming upcoming challenges.

While the subsequent chapters of this Petition presents an overview of the financial performance of the MSLDC, under this section, MSLDC would like to specifically present its operational performance and its efficacy of systems operation capabilities of MSLDC in the recent past. The table below compares the operational performance of the MSLDC during the entire period of FY 2017-18 and FY 2018-19 for kind information of the Hon'ble Commission.

Sr. No.	Key result Area and Corresponding Key Performance Indicator	Achievement during FY 2017-18	Achievement during FY 2018-19
<b>1</b>	<b>EFFICIENT GRID OPERATION AND CONTROL</b>		
A	Demand & energy catered	Max. Peak demand 22994 MW on 11.04.2017 & Total energy catered 154214.7 MU. (Max. 501.805 MUs on 11.04.2017)	Max. Peak demand 24962 MW (Including LS-950 MW) on 22.10.2018 & Total energy catered 162559 MU. (Max. 517.700 MU on 10.10.2018)
B	To follow DSM discipline and maintain deviation in permissible limit (250 MW).	i. Less than 250 MW: 10.96 %. ii. -250 to +250 MW: 71.89 % (allowed as per IEGC) iii. Greater than 250 MW : 17.15 %	i. Less than 250 MW: 12.28 %. ii. -250 to +250 MW: 75.18 % (allowed as per IEGC) iii. Greater than 250 MW : 12.53 %
C	Improvement in Grid Parameters (f)	i. Less than 49.90 Hz: 12.391 % of time ii. Between 49.90 – 50.05 Hz: 76.144% of time iii. Above 50.05 Hz : 11.469 % of time	iv. Less than 49.95 Hz: 12.12 % of time v. Between 49.95 – 50.05 Hz: 75.53 % of time vi. Above 50.05 Hz : 12.40 % of time

Sr. No.	Key result Area and Corresponding Key Performance Indicator	Achievement during FY 2017-18	Achievement during FY 2018-19
D	Scheduling of power as per contracts.	Daily scheduling as per MOD carried out. The new scheduling software (MiPDDSS) work order is placed on M/s Power Research and Development Consultants Pvt. Ltd. (PRDC), Bangalore on Date 19.05.2017.(Work in progress)	Daily scheduling as per MOD carried out. The new scheduling software (MiPDDSS) is developed by MSLDC through M/s Power Research and Development Consultants Pvt. Ltd. (PRDC). In this software scheduling is commenced from 1st Jan 2019
E	Development of Scheduling Software as per new DSM Mechanism.	DSM mechanism is mandated to be implemented from 1 <sup>st</sup> April 2020 & hence no activities related to Development of Scheduling Software as per DSM Mechanism were taken up.	DSM mechanism is mandated to be implemented from 1 <sup>st</sup> April 2020 and the Development of Scheduling Software as per new DSM Mechanism is under progress. Work order placed on M/s PWC.
F	Daily Reporting & Quarterly feedback report to STU for Transmission constraints, congestion, GCC etc.	Daily reporting is done to all higher authorities. Quarterly feedback report to STU is submitted for all quarter in FY 2017-18.	Daily reporting is done to all higher authorities. Quarterly feedback report to STU is submitted for second quarter of FY 2018-19. Web-based outage Management System implemented at SLDC w.e.f 01.08.2018
G	Coordination with WRLDC/ GENCO/ DISCOM/ TSU/OA	Coordinated with WRLDC/GENCO/DISCOM/TSU/OA as & when required. OCC/TCC-WRPC meetings participated actively.	Coordinated with WRLDC/GENCO/DISCOM/TSU/OA as & when required. OCC/TCC-WRPC meetings participated actively.

2	OUTAGE MGMT. AND CONTINGENCY PLANNING		
Sr. No.	Key result Area and Corresponding Key Performance Indicator	Achievement during FY 2017-18	Achievement during FY 2018-19
A	400 KV and above system elements in coordination with	Total 1037 No. of 400kv and above, system elements outages provided	Total 1094 No. of 400kv and above, system elements outages provided

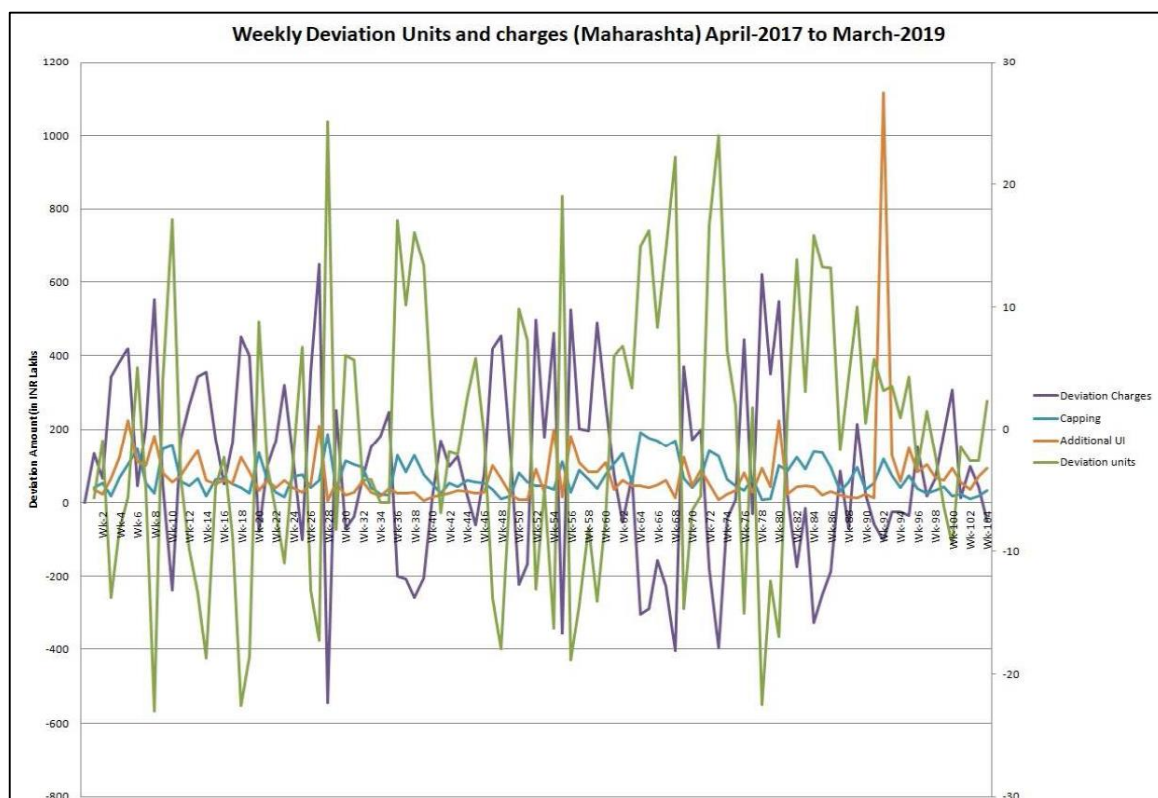


	WRLDC/WRPC.		
B	220 KV level system elements outages.	Total 3051 No. of 220kV level system elements outages provided.	Total 3488 No. of 220kV level system elements outages provided.

3 ENERGY ACCOUNTING /OA/ REGULATORY and MSPC			
Sr. No.	Key result Area and Corresponding Key Performance Indicator	Achievement during FY 2017-18 (Oct 2017- March 2018)	Achievement during FY 2018-19 (April 2018 to March 2019)
A	Timely issuance of FBSM weekly bills.	i. Weekly FBSM bills up to March 2016 issued ii. Total 13 bills have been issued	i. Weekly FBSM bills up to third week of June-17 issued with May-17 bill remained due to software calculation error which were issued subsequently. (Total 59 bills issued) ii. Outsourcing personnel recruited for speeding up the FBSM billing work which resulted in issuance of nearly 6-8 bills per month instead of only 2-3 bills earlier iii. Also replica of application server prepared which enabled more operation to be performed by engineer. iv. New Database server installed with high end features
B	Computation of Transmission Loss for the intra-state system.	Computation of In-STS loss through EAS for 6 months (Sept 17 to Feb 18) published on MSLDC website.	Computation of InSTS loss through EAS for 12 months (March 18 to Feb 19) published on MSLDC website.
C	Development of comprehensive	Budgetary offers received for MDAS from 50 Hertz, Amitech and	i. MDAS software development was taken up by ACI, MSETCL.

	software for FBSM	CMS	<p>ii. Scheduling software was developed by scheduling section, MSLDC and made live from 01.01.2019.</p> <p>iii. Billing mechanism changed from FBSM to DSM and DSM software is under development.</p>
D	Development of new web based software for STOA.	Testing of STOA software module by MSLDC team completed	SAT carried out, training provided to the end users & now software is under trial run..

Upon analysing the various parameters/performance indicators in the above table, one can observe that year-on-year, SLDC is able to improve various system operational parameters through its operational effectiveness, thereby benefitting the State of Maharashtra and its Power Utilities at large. The following graph and table shows how the commercial burden on the State has reduced over the past years w.r.t its unscheduled interchange (UI) transactions with respect to the regional/national grid.



**Table 42: ADMC for FY 2017-18 to FY 2018-19**

(Rs. Lakh)

Particulars	FY 2017-18	FY 2018-19
<b>Annual Additional Deviation Management Charges payable by the State</b>	3108	4413

Besides the improvement in the system operation effectiveness, SLDC is also poised to meet the upcoming challenges and therefore has planned various schemes, which are either at the planning stage or are under execution.

New Projects Planned/Under execution		
Sr. No.	Projects	Status
A	5 RTU data integration- CTU-STU interface points	Scheme completed for CTU-STU interface data at Maharashtra periphery
B	80 RTUs data integration for 220 KV sub-stations	In progress. Detailed orders placed by CE(PAC). Order for integration in existing SCADA at SLDC is placed on M/s Siemens on rate contract basis for 150-300 RTUs within next 3 years.  36 RTU integrated and visible at SLDC.
C	Development of DSM Software	Web portal designed. Other model development is in progress
D	Implementation of REMC	REMC Centre established.  QCA & REDCM development is in progress  90% work completed.
E	Development of web based STOA software	Work in progress
F	BARCO	Work completed and BARCO screen commissioned on 01.07.2019.

## 7. ARR forecast for FY 2020-21 to FY 2024-25

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Hon'ble Commission has published the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019 (MYT Regulations, 2019) which is applicable for the control period comprising five Years from April 1, 2020 to March 31, 2025. As per Regulation 3.1 of MYT Regulations, 2019 the Hon'ble Commission shall determine the Aggregate Revenue Requirement, Tariff and Fees and Charges, including terms and conditions thereof, in accordance with MYT Regulations, 2019 including MSLDC.

Regulation 4.2 of MYT Regulations, 2019 has given the details of multi-year framework and details of multi-year tariff petition. The provision is given below.

*"4.2 The Multi-Year Tariff framework shall be based on the following elements, for computation of Aggregate Revenue Requirement and expected revenue from Tariff and Charges for Generating Companies, Transmission Licensees, Distribution Wires Business, Retail Supply Business, and Fees and Charges of MSLDC:*

*(i) A Multi-Year Tariff Petition comprising the forecast of Aggregate Revenue Requirement, expected revenue from existing Tariff or Fees and Charges in case of MSLDC, expected revenue gap, and proposed Tariff or Fees and Charges for each year of the Control Period, shall be submitted by the Generating Company or Licensee or MSLDC:*

*Provided that the Distribution Licensee shall propose the category-wise Tariffs for each year of the Control Period:*

*Provided further that the performance parameters whose trajectories have been specified in these Regulations shall form the basis of projection for the Aggregate Revenue Requirement for the entire Control Period;*

*(ii) Determination of the Aggregate Revenue Requirement and Tariff or Fees and Charges for Generating Companies, Transmission Licensees, Distribution Wires Business, Retail Supply Business, and MSLDC by the Commission for each year of the Control Period, at the start of the Control Period:*

*Provided that the Commission shall also approve the sharing proportion amongst the Transmission System Users of the MSLDC Fees and Charges for the Control Period;"*

Following the same provision, the present Multi-Year Tariff Petition comprises of forecast of Aggregate Revenue Requirement, expected revenue from existing Fees and Charges, expected revenue gap, and proposed Fees and Charges for each year of the Control Period, i.e. from FY 2020-21 to FY 2024-25.

Part I of MYT Regulations, 2019 has detailed out the provisions related to MSLDC. Regulation 95 provides the methodology to be followed for determination of Annual Fixed Charges (AFC) for MSLDC. The provisions are given below.

*"95 Annual Fixed Charges for MSLDC*

*The Annual Fixed Charges to be levied by the MSLDC shall provide for the recovery of the Aggregate*

*Revenue Requirement of the MSLDC for the respective Year of the Control Period, as reduced by the amount of Non-Tariff Income as approved by the Commission and comprising the following:*

*(a) Operation and Maintenance expenses;*

*(b) Regional Load Despatch Centre (RLDC) Fees and Western Region Power Committee (WRPC) Charges;*

*(c) Depreciation;*

*(d) Interest on Loan Capital;*

*(e) Interest on working capital*

*(f) Return on Equity Capital;*

*(g) Income Tax;*

*minus:*

*(h) Income from Open Access charges;*

*(i) Non-Tariff income:*

*Provided that Depreciation, Interest on Loan, and Return on Equity for the MSLDC shall be allowed in accordance with the provisions specified in Part D of these Regulations:"*

Following the above principle, MSLDC has prepared the present petition and the detailed of each component of Aggregate Revenue Requirement is given below.

### **7.1.Operation & Maintenance Expenses**

The provision for projected O&M expenses over the control period is given in Regulation 96 of MYT Regulation, 2019. The same is reproduced below.

*"96.2 The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-up Operation and Maintenance expenses after adding/deducting the share of efficiency gains/losses, for the three Years ending March 31, 2019, excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission:*

*Provided that the average of such Operation and Maintenance expenses shall be considered as Operation and Maintenance expenses for the Year ended March 31, 2018, and shall be escalated at the respective escalation rate for FY 2018-19 and FY 2019-20, to arrive at the Operation and Maintenance expenses for the base year ending March 31, 2020:*

*Provided further that the escalation rate for FY 2018-19 and FY 2019-20 shall be computed by considering 20% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past five financial years as*

per the Labour Bureau, Government of India.

96.3 At the time of true-up for each Year of this Control Period, the Operation and Maintenance expenses shall be derived on the basis of the Final Trued-up Operation and Maintenance expenses after adding/deducting the sharing of efficiency gains/losses, for the year ending March 31, 2020, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year Operation and Maintenance expenses:

Provided that the Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor with 20% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

Following the above approach, average of true-up O&M expenses, after adding/ deducting the share of efficiency gains/losses, of the three Years i.e. FY 2016-17 to FY 2018-19 has been calculated. Considering the derived average O&M expenses for FY 2017-18, the same was escalated, with suitable escalation factor, twice to derive the base O&M expenses for FY 2019-20. After that with appropriate escalation factor on base O&M expenses (applicable for FY 2019-20), the same has been projected for the entire control period.

The escalation factor has been derived with 20% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India. For deriving the escalation factor for the control period, the factor for FY 2019-20 has been reduced by efficiency factor of 1%. The summary of the same is provided below.

**Table 43: Escalation factor for projecting O&M expenses during 4<sup>th</sup> Control period**

Particulars	Average of past five years ending FY 2017-18	Average of past five years ending FY 2018-19
WPI	1.5%	1.3%
CPI-IW	5.78%	4.92%
Escalation factor for deriving O&M expenses for FY 2018-19	4.92%	
Escalation factor for deriving O&M expenses for FY 2019-20		4.20%

Particulars	Average of past five years ending FY 2017-18	Average of past five years ending FY 2018-19
Escalation factor for deriving O&M expenses for entire control period		3.2%

Considering the above escalation factors and O&M expenses for FY 2016-17 to FY 2018-19, the O&M expenses for entire control period, on normative basis, is derived as given below.

**Table 44: Normative O&M Expenses for next Control Period**

(Rs. Lakh)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M expenses	2439.41	2517.44	2597.95	2681.05	2766.80

### Premise for projection of O&M expense for next control period

MSLDC would like to humbly submit that O&M expense for the years FY 2018-19 to FY 2019-20, would be influenced by the following key factors, which would not have been factored while deriving norms for MSLDC.

- Impact of Wage Revision due on April 2018:** The details of wage revision has been elaborated in Provisional True-up for FY 2019-20 section in this petition. The arrears of 18 months (April 2018 to September 2019) proposed to be disbursed as 2/3<sup>rd</sup> during FY 2019-20 and remaining 1/3<sup>rd</sup> during FY 2020-21. . For employee expenses, other than impact of wage revision, employee expenses for FY 2019-20 is escalated as per escalation factor of 3.2%, as derived as per MYT regulations, 2019. So, total expenses, is summation of employee expenses escalated as per derived factor and wage revision arrears.
- For A&G and R&M expenses, the estimated expenses for FY 2019-20 has been escalated by 3.2% only.

In view of above, MSLDC humbly submits that the O&M expenses is projected only as per escalation factor derived as per MYT Regulations, 2019. The difference with normative is due to the fact that employee expenses are revised due to wage revision. So, the employee expenses consider as base for projected the employee expenses during the fourth control period is revised as per wage revision. Hence, earlier three years' average would not be applicable.

In view of the above factors, following methodology and escalation factors has been considered for projection of employee expense for the period from FY 2018-19 to FY 2019- 20.

Based on the above, the O&M expense for FY 2020-21 to FY 2024-25 has been projected as shown in the following table:

**Table 45: Detailed O&M Expenses for next Control Period**

(Rs. Lakh)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expenses	2346.62	2176.13	2245.77	2317.63	2391.80
A&G Expenses	560.03	577.95	596.45	615.54	635.23
R&M Expenses	214.14	220.99	228.07	235.36	242.89
<b>Total O&amp;M Expenses</b>	<b>3120.79</b>	<b>2975.08</b>	<b>3070.28</b>	<b>3168.53</b>	<b>3269.92</b>

MSLDC humbly requests the Hon'ble Commission to approve above O&M expenses for the next control period. The details of O&M Expenses are provided in Form F-2 of Petition Formats.

### ***7.2. Interest on Working Capital***

The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019 under Regulation 32 specifies as under for calculation of IoWC:

*"32.5 MSLDC*

*The working capital requirement of the MSLDC shall cover:*

*(i) Operation and maintenance expenses for one month;*

*(ii) One and a half months equivalent of the expected revenue from levy of Annual Fixed Charges approved by the Commission for ensuing year/s:*

*Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of revised normative Operation & Maintenance expenses and actual Revenue from sale of electricity excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;*

*(b) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Fees and Charges is filed, plus 150 basis points:"*

MSLDC has considered the aforementioned methodology specified in the MYT Regulations, 2019 for calculation of IoWC for FY 2020-21 to FY 2024-25. For computing the interest on working capital for future years, MSLDC has considered the interest rate of 9.55%, i.e. current base rate (MCLR) of 8.05% plus 1.5%. The Working Capital and interest computation for MSLDC for FY 2020-21 to FY 2024-25 are shown in the table below:



**Table 46: Interest on Working Capital for next control period****(Rs. Lakh)**

Sl No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	<b>Interest on Working Capital Requirement</b>	645.11	647.73	695.53	764.64	804.93
1.1	Rate of Interest (% p.a.)	9.55%	9.55%	9.55%	9.55%	9.55%
1.2	<b>Interest on Working Capital</b>	<b>61.61</b>	<b>61.86</b>	<b>66.42</b>	<b>73.02</b>	<b>76.87</b>

MSLDC humbly requests the Hon'ble Commission to approve Interest on Working Capital for the next Control Period on normative basis. The detailed computation of normative interest on working capital has been given in the Form 6 of Petition Formats.

### **7.3.RLDC Fees & WRPC Charges**

Hon'ble Central Electricity Regulatory Commission (CERC) finalized the fees and charges for Western Regional Load Despatch Centre for the tariff period 2014-19 under sub-section 4 of Section 28 of the Electricity Act, 2003 and Regulation 6 of Central Electricity Regulatory Commission (Fees & Charges of Regional Load Despatch Centre and other related matters) Regulations 2015 through its order dated 26.12.2016. The said order was valid up to FY 2018-19. For the next control period Hon'ble CERC has issued Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 on 05.04.2019. WRLDC Fees will be determined for FY 2019-20 onwards under the said Regulations in due course of time. Recently, WRLDC has filed its petition for determination of charges for the next control period from FY 2019-20 to FY 2023-24 (<https://wrlcdc.in/WriteReadData/News/201910071106315581233WRLDCPetitionControlPeriod2019to2024FeesandCharges.pdf>). WRPC charges as projected in the said petition has been considered. As per past payment data, MSLDC share is around 15% of the WRLDC charge. Considering the same proportion, RLDC fees and charges for the entire control period have been projected as given below.

**Table 47: RLDC Fee & WRPC Charges for next control period****(Rs. Lakh)**

Sl No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	<b>RLDC Fees and Charges</b>					
	April to March	874.41	1055.16	1195.43	1361.35	1361.35
2	<b>WRPC Charges</b>					

SI No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	WRPC Secretariat Charges	-	-	-	-	-
	<b>Total - RLDC Fees and WRPC Charges</b>	874.41	1055.16	1195.43	1361.35	1361.35

The petitioner has provided the calculations in support of considering MSLDC share is around 15% of the WRLDC charges in para 5.3 of previous chapter (Provisional true up of FY 2018-19).

Accordingly, MSLDC requests the Hon'ble Commission to approve RLDC Fees for FY 2020-21 and FY 2024-25 as proposed above. Also, WRPC charges are not applicable for MSLDC w.e.f. FY 2016-17, as submitted earlier.

MSLDC shall approach the Hon'ble Commission with the actual RLDC charges at the time of Review or Truing up. The details of RLDC Fees are also provided in Form F-7 of Petition Formats.

#### ***7.4. Capital Expenditure Plan and Capitalisation***

Managing the grid is becoming increasingly complex considering the large number of players connected to it and the associated transactions involved. The task of a grid operator is growingly challenging owing to the paradigm changes expected in the Indian Grid with large scale integration of Renewable Energy projects to the grid, establishment of ancillary services market, managing large scale grid connected storage solutions, operating and settlement of spinning reserve market etc. A robust metering and communication infrastructure with real-time data transfer capability at all levels of grid is of utmost importance so as to monitor and control the grid in the most efficient manner in these growing challenging situations. Further, with the growing complexities in the grid, a more de-centralized approach of controlling and management is expected to be more effective.

In this context, so as to overcome these challenges, MSLDC has planned for various schemes for implementation in the past Control Period during the 3<sup>rd</sup> control period (FY 2016-17 to FY 2019-20) and submitted to the Hon'ble Commission for approval vide our MYT Petition in Case No. 20 of 2016. In its MTR petition also, MSLDC submitted its progress in this regard. The proposed capitalization for FY 2018-19 and FY 2019-20 was submitted and approved by Hon'ble Commission. MSLDC capitalized various schemes and implementation of various other schemes is under progress. Considering the actual capitalization achieved in the past period and the progress made so far, there has been some revision in the capitalization proposed during 3<sup>rd</sup> control period. The same can be verified from CWIP data given by MSLDC. For the ensuing years, viz. FY 2020-21 to FY 2024-25, MSLDC proposes the capital expenditure and capitalization considering the past progress and new schemes to be implemented in future.

In addition to the various ongoing DPR and non-DPR schemes, MSLDC envisages capital expenditure and capitalization towards several new schemes during 4<sup>th</sup> control period. The schemes so planned for the ensuing years have been projected as per the requirement of different section of SLDC together with ALDC.

*“93 Capital Investment Plan*

*93.1 The MSLDC shall submit a detailed capital investment plan, financing plan and physical targets for each Year of the Control Period based on the operational requirements prescribed by the Commission and recommendations of various Committees constituted for looking into matters related to strengthening and ring fencing of the State Load Despatch Centres by the Ministry of Power, Government of India or any such other statutory authorities, to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period.*

*93.2 The Capital Investment Plan shall be a least cost plan for undertaking investments and shall cover all capital expenditure projects of a value exceeding Rs. One crore or any other limit as may be stipulated by the Commission from time to time and shall be in such form as may be stipulated by the Commission.*

*93.3 The Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the MSLDC Fees and Charges.*

*93.4 The Commission shall consider the Capital Investment Plan along with the Multi-Year Aggregate Revenue Requirement for the entire Control Period submitted by the MSLDC taking into consideration the prudence of the proposed expenditure and estimated impact on MSLDC Fees and Charges.”*

While proposing the capital expenditure plan for the ensuing years, MSLDC has taken due care to propose DPR schemes and non-DPR schemes. DPR for few new schemes are under preparation and shall be submitted in due course for kind consideration and necessary approval of Hon’ble Commission. Further, there were certain schemes whose estimated value is less than the threshold value of Rs. 100 Lakh, as specified by the Hon’ble Commission, which has been shown as non-DPR schemes. For considering the capitalization of non-DPR schemes the provision given in MYT Regulations, 2019 is given below.

*“24.5 The actual capital expenditure on a scheme as on COD for the original scope of work based on audited accounts of the Generating Company or Licensee or MSLDC or Project, as the case may be, shall be considered subject to prudence check by the Commission.*

*24.6 The Commission may approve, for each year of the Control Period, an additional amount equivalent to 20% of the total capital expenditure approved for that year, towards planned or unplanned capital expenditure that is yet to be approved by the Commission.*

*24.7 The cumulative amount of capitalisation against non-DPR schemes for any Year shall not exceed 20% or such other limit as may be stipulated by the Commission through an Order, of the cumulative amount of capitalisation approved against DPR schemes for that Year:*

*Provided that the Commission may allow capitalisation against non-DPR schemes for any Year in excess of 20% or such other limit as may have been stipulated by the Commission through Order, on a request made by the Generating Company or Licensee or MSLDC:"*

Following the first proviso to Regulation 24.7 of the MYT Regulations, 2019, MSLDC proposes non-DPR capitalization as per requirement and not restricted the same at 20% of DPR capitalization. Also, Hon'ble Commission approved non-DPR capitalization as more than 20% of approved DPR capitalization in its MTR order in Case No. 171 of 2017. Hon'ble Commission's observation in this regard is given below.

*"5.5.7..... The Commission observes that most of the capex schemes of MSLDC are small value schemes and Capitalisation against these is requirement based and periodic in nature. Further, the Commission notes that, with new developments and issues in the power sector such as increasing share of renewable energy in the overall energy mix, integration of renewable energy into the grid, grid management to accommodate such smaller capacities and infirm nature of renewable energy, there are operational and technological challenges before SLDCs. Considering the foregoing, the Commission is of the view that the routine operations of MSLDC should not be adversely affected and it should also be equipped to undertake necessary capital expenditure to meet the operational and technological challenges. Therefore, the Commission has reviewed MSLDC's request to approve the capitalisation proposed under DPR and non-DPR schemes as submitted and accordingly, as a special dispensation pursuant to the first proviso to Regulation 23.6 of the MYT Regulations, 2015, decides not to restrict the non-DPR capitalisation at 20% of DPR capitalisation approved for the year. Accordingly, the Commission approves capitalisation against DPR as well as non-DPR schemes as claimed by MSLDC, subject to prudence check at the time of Truing up."*

So, to meet the operational and technological challenges, MSLDC proposes the capital expenditure and capitalization plan of MSLDC during the 4<sup>th</sup> control period from FY 2020-21 to FY 2024-25, as per different sections of SLDC, as shown below.

**Table 48: Projected Capitalisation for FY 2020-21 to FY 2024-25**

**(Rs. Lakh)**

**SLDC Kalwa**

Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
<b>Energy Accounting Section</b>										
<b>A) DPR schemes</b>										
DSM	209	0	0	0	0	259	0	0	0	0
FBSM	200	0	0	0	0	200	0	0	0	0
<b>Sub -total A (DPR)</b>	<b>409</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>459</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023-24	FY 2024- 25	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023- 24	FY 2024- 25
<b>B) Non-DPR Schemes</b>										
RE DSM	0	0	0	0	0	0	0	0	0	0
REC	25	0	0	0	0	25	0	0	0	0
STOA Software	0	0	0	0	0	0	0	0	0	0
<b>Sub -total B (Non- DPR)</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total (A+B) EA Section</b>	<b>434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>484</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SCADA/Admn. Section</b>										
<b>A) DPR schemes</b>										
Estimate of Sub LDC at Nasik & Pune.	0	0	1002.4 8	1002.48 0	0	0	0	0	1002.4 8	1002.4 8
Renovation and Mordanization of exiting SCADA System at SLDC and ALDC.	0	1400	0	0	0	0	700	700	0	0
Replacement of exiting VPS at ALDC Ambazari.	150	0	0	0	0	150	0	0	0	0
Upgradation of WAMS Systems	20	0	0	0	0	20	0	0	0	0
80 RTU	0	0	0	0	0	0	0	0	0	0
70/SAS /RTU Integration	247.8	0	0	0	0	247.80	0	0	0	0
<b>Sub -total A (DPR)</b>	<b>417.8</b>	<b>1400.0 0</b>	<b>1002.4 8</b>	<b>1002.48</b>	<b>0</b>	<b>417.80</b>	<b>700</b>	<b>700.00</b>	<b>1002.4 8</b>	<b>1002.4 8</b>
<b>B) Non-DPR Schemes</b>										
Purchase of Additional VPS Screen to show Operational Data.	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Incidental SCADA expenses	10	10	10	10	10	10	10	10	10	10
Integration of New S/stn. At SLDC / ALDC SCADA	30	100	0	0	0	30	100	0	0	0
SITC of BARCO LED based display wall	0	0	0	0	0	0	0	0	0	0
<b>Sub -total B (Non- DPR)</b>	<b>40</b>	<b>110</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>40</b>	<b>110</b>	<b>10</b>	<b>10</b>	<b>10</b>

Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023-24	FY 2024- 25	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023- 24	FY 2024- 25
<b>Total (A+B) SCADA/Admn. Section</b>	<b>457.8</b>	<b>1510.0 0</b>	<b>1012.4 8</b>	<b>1012.48</b>	<b>10</b>	<b>457.8</b>	<b>810.00</b>	<b>710.00</b>	<b>1012.4 8</b>	<b>1012.4 8</b>
<b>Operation Section</b>										
<b>A) DPR schemes</b>										
Development of load forecasting software and services	180	150	150	150	150	180	150	150	150	150
<b>Sub -total A (DPR)</b>	<b>180</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>180</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>
<b>B) Non-DPR Schemes</b>										
PSSE Systems study software ( 2nd Keys )	40	0	0	0	0	40	0	0	0	0
State Specific customizations in REMC Software and Allied additional requirement of hardware through change order.	40	0	0	0	0	40	0	0	0	0
Development / Modification / Additional requirement of various Software viz. Dataware housing , scheduling & MIS Software and Integration with other software.	15	10	10	10	10	15	10	10	10	10
Hardware for f reserve and ancillary services Software (GAMS)	0	50	0	0	0	0	50	0	0	0
Development of reserve and ancillary services Software for Intrastate Generators (GAMS)	0	0	0	0	0	0	0	0	0	0
Server upgradation and Synchronization activity of Data ware housing software between SLDC & ALDC	50	0	0	0	0	50	0	0	0	0

Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Additional 55 Inches 10 Nos. of Screen in control Room	20	0	0	0	0	20	0	0	0	0
<b>Sub -total B (Non- DPR)</b>	<b>165</b>	<b>60</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>165</b>	<b>60</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Total (A+B) Operation Section</b>	<b>345</b>	<b>210</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>345</b>	<b>210</b>	<b>160</b>	<b>160</b>	<b>160</b>
<b>Maintenance Section</b>										
<b>A) DPR schemes</b>										
Compound Wall	80	0	0	0	0	80	0	0	0	0
Class I type staff quarter & Guest House, Recreation Hall & Gymnasium	0	732	0	0	0	0	0	732	0	0
<b>Sub -total A (DPR)</b>	<b>80</b>	<b>732</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>732</b>	<b>0</b>	<b>0</b>
<b>B) Non-DPR Schemes</b>										
<b>Infrastructure Development</b>										
EPBAX, Internal Office Communication Devices	20	5	0	0	0	0	20	5	0	0
CCTV, Security systems, Voice Recording	5	5	5	5	5	5	5	5	5	5
Building Interior & Renovation	20	20	20	20	20	20	20	20	20	20
Energy Efficient buildings up gradation/Solar Lighting	0	50	20	0	0	0	50	20	0	0
Furniture for Office & equipment	15	5	5	5	5	15	5	5	5	5
Staff recreation and rejuvenation facilities	10	0	5	0	5	10	0	5	0	5
Fire Alarm System/FSS	15	10	10	10	10	15	10	10	10	10
Air-conditioning Plants	60	20	10	10	10	30	50	10	10	10
Diesel Generator	5	0	0	0	0	70	0	0	0	0
BMS Automation	30	5	0	0	0	30	5	0	0	0

Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023-24	FY 2024- 25	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023- 24	FY 2024- 25
Testing Equipment & Tools	0	5	0	0	5	0	5	0	0	5
Battery Sets with Charger	0	30	0	0	0	0	30	0	0	0
UPS Systems	0	10	50	10	10	0	10	50	10	10
Security Cabin	0	0	5	0	5	5	0	5	0	5
Vehicle Parking Shed	0	0	10	0	5	20	0	10	0	5
Elevators	0	80	0	0	0	0	80	0	0	0
<b>Sub -total B (Non- DPR)</b>	<b>180</b>	<b>245</b>	<b>140</b>	<b>60</b>	<b>80</b>	<b>220</b>	<b>290</b>	<b>145</b>	<b>60</b>	<b>80</b>
<b>Total (A+B) Maintenance Section</b>	<b>260</b>	<b>977</b>	<b>140</b>	<b>60</b>	<b>80</b>	<b>300</b>	<b>290</b>	<b>877</b>	<b>60</b>	<b>80</b>
<b>IT Section</b>										
<b>A) DPR schemes</b>										
SITC of Hardware IT, Security	0	0	0	0	0	0	0	0	0	0
<b>Sub -total A (DPR)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>B) Non-DPR Schemes</b>										
1. IT Infrastructure (PC, Printer,Servers,Storage, Software Licenses,Firewalls, Routers, LAN Components, Switches, Rack etc)	50	60	70	70	70	50	60	70	70	70
2. DR Site	65	0	35	0	0	65	0	35	0	0
<b>Sub -total B (Non- DPR)</b>	<b>115</b>	<b>60</b>	<b>105</b>	<b>70</b>	<b>70</b>	<b>115</b>	<b>60</b>	<b>105</b>	<b>70</b>	<b>70</b>
<b>Total (A+B) IT Section</b>	<b>115</b>	<b>60</b>	<b>105</b>	<b>70</b>	<b>70</b>	<b>115</b>	<b>60</b>	<b>105</b>	<b>70</b>	<b>70</b>
<b>Sub -total A (DPR)</b>	<b>1086.8 0</b>	<b>2282</b>	<b>1152.4 8</b>	<b>1152.48</b>	<b>150.0 0</b>	<b>1136.8 0</b>	<b>850.00</b>	<b>1582.0 0</b>	<b>1152.4 8</b>	<b>1152.4 8</b>
<b>Sub -total B (Non- DPR)</b>	<b>525.00</b>	<b>475.00</b>	<b>265.00</b>	<b>150.0</b>	<b>170.0</b>	<b>565.00</b>	<b>520.00</b>	<b>270.00</b>	<b>150.0</b>	<b>170.0</b>
<b>Grant Total (DPR + Non DPR)</b>	<b>1611.8 0</b>	<b>2757.0 0</b>	<b>1417.4 8</b>	<b>1302.48</b>	<b>320.0 0</b>	<b>1701.8 0</b>	<b>1370.0 0</b>	<b>1852.0 0</b>	<b>1302.4 8</b>	<b>1322.4 8</b>

## ALDC



Particulars of Scheme	Capital Expenditure ( in Lakhs )					Capitalisation ( in Lakhs )				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
<b>A) DPR schemes</b>										
Fire Alarm System/FSS	150	5	0	0	0	150	5	0	0	0
<b>Sub -total A (DPR)</b>	<b>150</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>B) Non-DPR Schemes</b>										
Air Conditioning Plants	10	10	10	0	0	10	10	10	0	0
Landscaping water supply and drainage	5	10	10	0	0	5	10	10	0	0
IT Infrastructure (PC, Printer,Servers,Storage, Software Licenses,Firewalls, Routers, LAN Components, Switches, Rack etc)	0	0	40	0	0	0	0	40	0	0
Furniture for Office & equipment's	2	2	2	2	0	2	2	2	2	0
Energy Efficient buildings up gradation/Solar Lighting	0	20	0	1	0	0	20	0	1	0
Building Interior & Renovation	0	20	20	0	0	0	20	20	0	0
CCTV, Security systems, Voice Recording	0	3	0	0	0	0	3	0	0	0
EPBAX, Internal Office Communication Devices	2	0	0	0	0	2	0	0	0	0
Testing Equipment's & Tools	1	1	1	1	0	1	1	1	1	0
Video conferencing	10	0	0	0	0	10	0	0	0	0
Staff recreation and rejuvenation facilities	5	0	0	2	0	5	0	0	2	0
<b>Sub -total B (Non- DPR)</b>	<b>35</b>	<b>66</b>	<b>83</b>	<b>6</b>	<b>0</b>	<b>35</b>	<b>66</b>	<b>83</b>	<b>6</b>	<b>0</b>
<b>Grant Total (DPR + Non DPR)</b>	<b>185.00</b>	<b>71.00</b>	<b>83.00</b>	<b>6.00</b>	<b>0.00</b>	<b>185.00</b>	<b>71.00</b>	<b>83.00</b>	<b>6.00</b>	<b>0.00</b>

### Projected Capitalisation for FY 2020-21 to FY 2024-25 (SLDC + ALDC)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Capital Expenditure	1796.80	2828.00	1500.48	1308.48	320.00

Capitalisation	1886.80	1441.00	1935.00	1308.48	1322.48
IDC					
Capitalisation + IDC	1886.80	1441.00	1935.00	1308.48	1322.48

Note: The project cost given above includes Interest during construction (IDC) if any.

MSLDC humbly requests the Hon'ble Commission to approve the Capital Expenditure and Capitalisation submitted above for FY 2020-21 to FY 2024-25.

### Utilization of LDC fund

As per the directive of Hon'ble Commission with respect to creation and utilization of LDC fund in Case No. 171 of 2017, the fund can be used for capitalization. The directives given in this regard is given below.

*"6.13.13 .....Commission issues the following directions to MSLDC in respect of the creation of the LDCD Fund and utilisation of the corpus available in this Fund in the FY 2018-19 and FY 2019-20:*

- The fund will be created with an initial contribution of Rs. 4,053.01 Lakhs as set out above.*
- This Fund will be utilised by MSLDC for the purpose of funding of the capitalisation provisionally approved in the FY 2018-19 and FY 2019-20, in this Order.*
- In view of the above, the Commission will not consider any addition to the normative loan and equity capital against the proposed capitalisation of FY 2018-19 and FY 2019-20.*
- Accordingly, MSLDC will not be eligible to claim RoE, interest on Loans and depreciation on account of asset addition envisaged in FY 2018-19 and FY 2019-20 which is proposed to be funded through the LDCD Fund.*
- MSLDC shall maintain separate record of the funds available in the LDCD Fund and its year wise utilisation. These records will be submitted to the Commission as part of MSLDC's next Tariff Petition."*

Following above approach, the capitalization for FY 2018-19 to FY 2021-22 is proposed to be funded from LDC fund, considering the proposed capitalization and amount of LDC fund. Subsequent claims for RoE, interest on Loans and depreciation have not been projected by MSLDC for the asset created from LDC fund. For those years, only assets created up to FY 2017-18 have been considered for the purpose of depreciation, interest on loan and RoE. From FY 2022-23 onwards, depreciation, interest on loan and RoE have been calculated on old asset created up to FY 2017-18 and new asset created from FY 2022-23 onwards. The detailed guidelines in this regard are awaited. Considering the present submission, the amount of LDCD fund has been revised as per truing up of FY 2017-18, FY 2018-19 and provisional truing up of FY 2019-20.

**Table 49: Revised LDCD fund proposed**

<b>(Rs. Lakh)</b>		
<b>Particulars</b>	<b>Amount allocated to the LDCD fund (Rs lakh)</b>	<b>Revised allocation to LDCD fund (Rs lakh)</b>
Revenue surplus of FY 2015-16 after Truing up approved in MTR Order	657.05	657.05
Revenue surplus of FY 2016-17 after Truing up approved in MTR Order	1896.71	1896.71
Revenue surplus of FY 2017-18 after Provisional Truing up approved in MTR Order	101.8	871.70*
Apportionment of gap to be recovered in FY 2018-19 approved vide Order in Case No. 20 of 2016	685.83	685.83
Apportionment of surplus to be recovered in FY 2018-19 after truing-up		552.31*
Apportionment of surplus to be recovered in FY 2019-20 approved vide Order in Case No. 20 of 2016	711.62	711.62
Apportionment of surplus / (gap) to be recovered in FY 2019-20 after provisional true-up		(262.29)*
<b>Total Corpus allocated to the LDC Fund as at the end of FY 2017-18</b>	<b>4053.01</b>	<b>5112.94</b>
<b>Utilization of LDCD fund</b>		
Capitalisation during FY 2018-19		526.94
Capitalisation during FY 2019-20		1048.36
Capitalisation during FY 2020-21		1886.80
Capitalisation during FY 2021-22		1441.00
<b>Projects funded from LDC fund proposed in the petition</b>		<b>4903.10</b>

\* Proposed under the present petition

### ***7.5. Depreciation***

MSLDC has calculated depreciation for the Period from FY 2020-21 to FY 2024-25 in accordance with the MERC MYT Regulations, 2019 and based on the projected capitalisation during each year of the Control

Period. The depreciation for the asset created from LDC fund has not been considered as per directives of Hon'ble Commission. The methodology to be followed for depreciation estimation has been mentioned in MYT regulations, 2019 and the same is reproduced below.

*“28 Depreciation*

*28.1 The Generating Company, Licensee, and MSLDC shall be permitted to recover depreciation on the value of fixed assets used in their respective Businesses, computed in the following manner:*

*(a) The approved original cost of the fixed assets shall be the value base for calculation of depreciation:*

*Provided that the depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.*

*(b) Depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure I to these Regulations:*

.....

*(c) The salvage value of the asset shall be considered at 10 per cent of the allowable capital cost and depreciation shall be allowed upto a maximum of ninety per cent of the allowable capital cost of the asset:*

.....

*28.4 In case of projected commercial operation of the assets for part of the year, depreciation shall be computed based on the average of opening and closing value of assets.”*

The depreciation has been calculated as per rates mentioned in MYT regulations, 2019. For asset addition during any year, average value of asset has been assumed for depreciation. For computer software/IT equipment, 15% rate of depreciation has been assumed as per earlier directive of Hon'ble Commission. The depreciation from FY 2020-21 to FY 2024-25 has been estimated as shown in Table below:

**Table 50: Depreciation Estimated for next control period**

(Rs. Lakh)					
Particulars	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Depreciation Expenses	277.62	261.72	288.30	382.73	455.20

MSLDC requests to approve the projected depreciation for the entire control period. The details of the Fixed Assets and depreciation for the Control Period from FY 2020-21 to FY 2024-25 have been provided in Form F4 of Petition Formats.

**7.6. Interest & Financial Charges**

The quantum of debt is considered as per capitalization discussed above. For appropriate debt: equity

ratio, Regulation 27 of MYT Regulation, 2019 is reproduced below:

*“27 Debt-equity ratio*

*27.1 For a capital investment Scheme declared under commercial operation on or after April 1, 2020, debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 24, after prudence check for determination of Tariff:*

*Provided that the equity investment to be considered in any year shall not exceed the difference between the sum of cumulative return on equity allowed by the Commission in previous years, efficiency gains and losses, incentives and disincentives, and income earned from investment of return on equity, and the cumulative equity investment approved by the Commission in previous years, unless the Generating Company or Licensee or MSLDC submits documentary evidence for the actual deployment of equity and explain the source of funds for the equity:*

*Provided further that the Generating Company or Licensee or MSLDC shall substantiate such investment of return on equity and income thereon through documentary evidence:*

*Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Generating Company or Licensee or MSLDC for determination of Tariff.”*

The debt requirement for each year is proposed to be as per debt: equity ratio of 70:30 as given in Regulation 27 of MYT Regulations, 2019. The debt is considered as normative loan as per the above provision.

At present, the required funding is assumed to be funded through equity only. Hence, the amount in excess of 30% of equity is considered as normative loan only.

The repayment of loan and interest on loan related provisions as given in MYT Regulations, 2019 are shown below.

*“30.3 The loan repayment during each year of the Control Period from FY 2020-21 to FY 2024-25 shall be deemed to be equal to the depreciation allowed for that year.*

*30.4 Notwithstanding any moratorium period availed, the repayment of loan shall be considered from the first year of commercial operation of the Scheme and shall be equal to the annual depreciation allowed.*

*30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:*

*Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest:*

*Provided further that if there is no actual long-term loan for a particular year but normative long-term loan is still outstanding, the last available weighted average rate of interest for actual long-term*

*loan shall be considered:*

*Provided also that if the Generating Company or the Licensee or the MSLDC, as the case may be, does not have actual long-term loan even in the past, the weighted average rate of interest of its other Businesses regulated by the Commission shall be considered:*

*Provided also that if the Generating Company or the Licensee or the MSLDC, as the case may be, does not have actual long-term loan, and its other Businesses regulated by the Commission also do not have actual long-term loan even in the past, then the weighted average rate of interest of the entity as a whole shall be considered:*

*Provided also that if the entity as a whole does not have actual long-term loan, then the Base Rate at the beginning of the respective year shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.*

*30.6 The interest on loan shall be computed on the normative average loan of the year by applying the weighted average rate of interest:*

*Provided that at the time of Truing-up, the normative average loan of the concerned year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the year.*

*30.7 The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Deposit Works, Grants or Capital Subsidy.”*

Considering the above provisions, the yearly depreciation as calculated above, is considered as loan repayment for each year. As mentioned earlier, some capitalization is funded through LDCD fund. For FY 2020-21, normative loan addition is not considered as the same is funded through LDCD fund.

Further, in accordance provisions of the MERC MYT Regulations, 2019, the repayment of loan has been considered equivalent to depreciation claimed during the respective years of the Control Period. MSLDC has considered the rate interest of 10.12% as per provision given in MYT Regulations 2019 . This interest rate is as per MSETCL’s submission. MSLDC has no actual loan at present. For the future capitalization, only normative loan has been considered; hence, no such actual interest expense benchmark is available for calculating the future interest expenses during the next control period. The interest on Loan for the entire control period is shown in Table as below:

**Table 51: Interest expenses estimated for next control period**

(Rs. Lakh)					
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Interest and finance Expenses	124.41	97.12	137.83	218.76	269.55

MSLDC requests to approve the projected loan expenses for next control period. The details of interest expenses from FY 2020-21 to FY 2024-25 have been provided in Form F5 of MYT Petition Formats.

## 7.7. Return on Equity

MSLDC has worked out the Return on Equity (RoE) for the next Control Period in accordance with the MERC MYT Regulations, 2019. RoE projected for the Control Period from FY 2020-21 to FY 2024-25 is based on the projected year-wise Capitalisation as projected above and as per debt: equity ratio assumed in this regard. The capitalization for FY 2020-21 funded from LDC fund is not considered as addition of equity during the year. The provision as given in MYT regulations, 2019 is given below.

### *“29 Return on Equity*

*29.1 Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of up to 15.5 per cent per annum in Indian Rupee terms, .....:*

*Provided that Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Additional Return on Equity linked to actual performance:*

*Provided further that Additional Return on Equity shall be allowed at time of truing up for respective year based on actual performance, after prudence check of the Commission:*

*29.2 Base Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 14 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 15.5 per cent per annum in Indian Rupee terms:*

*Provided that in case the Generation Company or Licensee or MSLDC claims Return on Equity at a rate lower than the normative rate specified above for any particular year, then such claim for lower Return on Equity shall be unconditional:*

*Provided further that such claim for lower Return on Equity shall be allowed subject to the condition that the reduction in Return on Equity shall be foregone permanently for that year and shall not be allowed to be recouped at the time of Mid-Term Review or true-up as applicable.*

*29.3 The Base Return on Equity shall be computed in the following manner:*

*(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus*

*(b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year:”*

MSLDC has considered RoE at rate of 15.5% on the opening equity as well as on 50% of the equity contribution during year, which is 30% of the asset addition during the year. The projected RoE for the

control period is shown in the table below:

**Table 52: Return on Equity estimated for next control period**

(Rs. Lakh)					
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Return on Equity	246.34	246.34	291.33	366.74	427.91

MSLDC humbly requests the Hon'ble Commission to approve above Return on Equity as projected for next control period from FY 2020-21 to FY 2024-25. The details of the Return on Equity for next Control Period have been provided in Form F 9 of MYT Petition Formats.

### ***7.8.Reactive Energy Charges paid/ Income from Reactive Energy Charges***

In context of the detailed rationale provided in earlier chapter para no 4.8 regarding Reactive Energy income/expense, and since the mechanism for reactive energy settlement is being discussed and finalized under the GCC meetings, MSLDC has not claimed any income/expense under this head.

### ***7.9.Income Tax***

In context of MSLDC's submissions regarding Income Tax in the previous chapters, MSLDC has not claimed Income Tax for the entire control period. However, if the status changes in between, SLDC will approach Hon'ble Commission to review the same.

### ***7.10. Non-Tariff Income***

Regulation 98 of the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019 specifies provision for non-tariff income for MSLDC. The same is reproduced below.

#### *"98 Non-Tariff Income*

*98.1 The amount of Non-Tariff Income relating to the MSLDC as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Fees and Charges of the MSLDC:*

*Provided that the MSLDC shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

*98.2 The Non-Tariff Income shall include:*

- a) Income from sale of scrap;*
- b) Income from investments;*
- c) Interest income on advances to suppliers/contractors;*
- d) Income from rental from staff quarters;*



e) Income from sale of tender documents;

f) Any other Non-Tariff Income:

*Provided that the interest earned from investments made out of Return on Equity of the MSLDC shall not be included in Non-Tariff Income."*

Considering the above provision and current trend, non-tariff income as approved by Hon'ble Commission for FY 2019-20 in Case No 171 of 2017 is assumed for the entire control period. The projected non-tariff income for period from FY 2020-21 to FY 2024-25 is shown in the table below:

**Table 53: Non-Tariff Income estimated for next control period**

(Rs. Lakh)					
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-tariff income	13.88	13.88	13.88	13.88	13.88

The income from investments expected pertaining to the investments made during past years in accordance with BR 97/12 dated 2<sup>nd</sup> February, 2015 and subsequent note approved by MSETCL management dated 14 July 2015, is not considered as non-tariff income as per the directives given by Hon'ble Commission. Hon'ble Commission in Case no 171 of 2017 para 6.13.13 while ruling on utilization of LDCD fund mention that the income earned through these investments will be passed on to the beneficiaries as part of non-tariff income, which will be dealt by the Commission either through the detailed guidelines to be issued by the Commission or at the time of the next tariff order. In line with these directives the petitioner request the Commission to take appropriate view on passing the income earned through the investments made by the petitioner. The details of the Non- Tariff Income for Control Period from FY 2020-21 to FY 2024-25 have been provided in Form F11 of Petition Formats. MSLDC humbly requests the Hon'ble Commission to approve above expenses towards Non- Tariff Income.

#### **7.11. Income from Open Access Charges including scheduling**

MSLDC has estimated income from Open Access Charges including scheduling / re-scheduling charges for FY 2020-21 and FY 2024-25 on the basis of estimated income for FY 2019-20 based on actual receipt of six months. Income from open access charges have been escalated by nominal 2% per annum on estimated income of FY 2019-20. The same is given below.

**Table 54: Income from Open Access Charges for next control period**

(Rs. Lakh)					
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Income from Open access	1156.68	1179.81	1203.41	1227.48	1252.03

#### **7.12. Summary of ARR for Control Period from FY 2020-21 to FY 2024-25**

Based on the above discussion, the head wise projected expenses for Control Period from FY 2020-21 to FY 2024-25 is summarized in Table below:

**Table 55: Summary of Annual Fixed Charges for FY 2020-21 to FY 2024-25**

<b>(Rs. Lakh)</b>						
<b>SR NO</b>	<b>Particulars</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>
1	Operation & Maintenance Expenses	3120.79	2975.08	3070.28	3168.53	3269.92
2	Depreciation Expenses	277.62	261.72	288.30	382.73	455.20
3	Interest on Loan Capital	124.41	97.12	137.83	218.76	269.55
4	Interest on Working Capital	61.61	61.86	66.42	73.02	76.87
5	RLDC Fees and WRPC Charges	874.41	1055.16	1195.43	1361.35	1361.35
6	Reactive Energy Charges paid to Generators/TSUs					
7	Income Tax					
8	<b>Total Revenue Expenditure</b>	<b>4458.84</b>	<b>4450.94</b>	<b>4758.26</b>	<b>5204.40</b>	<b>5432.89</b>
9	Return on Equity Capital	246.34	246.34	291.33	366.74	427.91
10	<b>Total Expenditure for MSLDC</b>	<b>4705.18</b>	<b>4697.28</b>	<b>5049.59</b>	<b>5571.13</b>	<b>5860.80</b>
11	Less: Non-Tariff Income	13.88	13.88	13.88	13.88	13.88
12	Less: Income from Open Access charges	1156.68	1179.81	1203.41	1227.48	1252.03
13	Less: Income from Reactive Energy Charges					
	<b>Gross Annual Fixed Charges for (AFC) MSLDC</b>	<b>3534.62</b>	<b>3503.58</b>	<b>3832.30</b>	<b>4329.78</b>	<b>4594.89</b>

In line with the directives of Hon'ble Commission under Case No 171 of 2017, SLDC has considered funding of capitalization for FY 2020-21 and FY 2021-22 from LDC development fund.

## 8. Sharing of MSLDC Charges

As per Regulation 99 of MERC MYT Regulations, 2019, the MSLDC Charges payable by the Transmission System Users shall be computed on the basis of base Transmission Capacity Right (TCR) of the beneficiaries. TCR can be calculated as average of Coincident Peak Demand (CPD) and Non-Coincident Peak Demand (NCPD).

In this context, the proviso to Regulations 99.1 of the MYT Regulations, 2019 is reproduced below:

*“The MSLDC Charges payable by the Transmission System Users shall be computed in accordance with the following formula:*

$$AFC(u)(t) = AFC(t) \times ([Base\ TCR(u)](t) / \sum [Base\ TCR(u)](t))$$

*Where,*

*AFC(u)(t) = MSLDC Charges to be shared by the Beneficiary (u) for the Yearly period(t);*

*AFC(t) = Total MSLDC Charges to be shared by the Beneficiaries for the Yearly period(t);*

$$Base\ TCR\ (u) = [CPD(u)(t) + NCPD(u)(t)] / 2$$

*Where,*

*Base TCR represents the Base Transmission Capacity Right of each Beneficiary (u) for the Yearly period (t);*

*CPD(u)(t) = Average Coincident Peak Demand of the Beneficiary (u) for the Yearly period(t);*

*NCPD(u)(t) = Average Non-Coincident Peak Demand of the Beneficiary (u) for the Yearly period(t);*

*Provided that the Allotted Capacity for long-term Open Access Users, excluding partial long-term Users, shall be considered in lieu of the average monthly CPD and NCPD for calculating the Base TCR for Open Access consumers.”*

The data for base TCR (i.e. average of CPD & NCPD) for the period from FY 2015-16 to FY 2018-19 is submitted below.

**Table 56: Base TCR of past four years**

(MW)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Base TCR	19185	19359	20363	21416

Considering the above data, the cumulative average growth rate (CAGR) is worked out as 3.74%. The CAGR has been used to project the base TCR. The projected base TCR is given below.

**Table 57: Projected base TCR for next control period**  
(MW)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Base TCR	23048	23910	24804	25732	26694

In line with the MTR Order in Case No. 171 of 2017, MSLDC has proposed sharing of MSLDC charges among the following TSUs.

**Table 58: List of TCRs sharing MSLDC Charges**

Transmission System Users
MSEDCL
TPCL-D
AEML-D
BEST
M/s. Mind space Business Parks Pvt. Ltd. (MBPPL)
Indian Railway-Maharashtra
M/s. Gigaplex Estates Pvt. Ltd. (GEPL)
M/s. Nidar Utilities

As per sharing of base TCR prevailed during FY 2018-19, sharing of the same is proposed for next control period, the same is given below.

**Table 59: Sharing of base TCR for next control period**

Transmission System Users	Sharing of base TCR
MSEDCL	84.076%
TPC-D	3.733%
AEML-D	6.710%
BEST	3.779%
Mindspace Business Parks Pvt. Ltd. (MBPPL)	0.063%
Indian Railway-Maharashtra	1.615%
Gigaplex Estates Pvt. Ltd. (GEPL)	0.023%
Nidar Utilities Panvel LLP	0.002%
<b>Total</b>	<b>100.00%</b>

Considering the above sharing of base TCR and ARR proposed, the yearly charges to be paid by the TSUs are given below.

**Table 60: Sharing of MSLDC Charges for FY 2020-21 to FY 2024-25**

(Rs. Lakh)					
Sharing of MSLDC Charges	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
MSEDCL	2971.76	2945.66	3222.03	3640.29	3863.19
TPC-D	131.93	130.77	143.04	161.61	171.51
AEML-D	237.17	235.09	257.14	290.53	308.31
BEST	133.58	132.41	144.83	163.63	173.65
Central Railway (Indian Railways)	57.10	56.60	61.91	69.95	74.23
Mindspace Business Parks Pvt. Ltd. (MBPPL)	2.21	2.19	2.40	2.71	2.88
Gigaplex Estates Pvt. Ltd. (GEPL)	0.80	0.79	0.86	0.98	1.04
Nidar Utilities Panvel LLP	0.07	0.07	0.08	0.09	0.09
<b>Total</b>	<b>3534.62</b>	<b>3503.58</b>	<b>3832.30</b>	<b>4329.78</b>	<b>4594.89</b>

Further, as per the MYT Regulations, 2019, MSLDC Charges per MW per month shall be computed in accordance with the following formula:

$$\text{Monthly MSLDC Charges (Rs. / MW / Month)} = [\text{AFC}(u)(t) \div \sum[\text{Base TCR}(u)](t)] \div 12$$

Accordingly, the projected MSLDC Charges works out as under:

**Table 61: Proposed MSLDC Charges for FY 2020-21 to FY 2024-25**

(Rs. /MW/Month)					
Monthly MSLDC Charges	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total MSLDC Charges (Rs. Lakh)	3534.62	3503.58	3832.30	4329.78	4594.89
Base Transmission Capacity Right (MW)	23048	23910	24804	25732	26694
Proposed MSLDC charges (Rs/MW/Month)	1278.00	1221.11	1287.52	1402.22	1434.43

The detailed computation of sharing of MSLDC charges have been provided in Form F13 of Petition Formats. MSLDC humbly requests the Hon'ble Commission to approve the proposed sharing of MSLDC charges and proposed monthly MSLDC charges for each year of next Control Period.

Further as per Regulation 37 of MYT Regulations, 2019, Delayed Payment Charge should be calculated on simple interest basis at the Base Rate as on 1st of the respective month plus 350 basis points per annum on the billed amount for the period of delay. Also, as per Regulation 36.1 of MYT Regulations, 2019, in case of payment of bills of MSLDC Fees and Charges within 7 days of presentation of bills, through Letter of Credit or otherwise or through NEFT/RTGS, a rebate of 1% on billed amount, excluding the taxes, cess, duties, etc., shall be allowed. MSLDC requests Hon'ble Commission to consider the 1% rebate in MSLDC charges, while calculating the ARR of MSLDC.

## 9. Fees to be charged by MSLDC

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The Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019 under Regulation 100 specifies as under:

*"100. Fees to be charged by MSLDC*

*100.1 The MSLDC shall recover the following Fees as approved by the Commission from time to time:*

- a) Registration or Connection Fees per connection from all users connecting to the Intra-State Transmission System;*
- b) Scheduling Fees per day for intra-State Short-term Open Access transactions;*
- c) Re-scheduling Fees for each revision in schedule after the finalization of schedules by the MSLDC on a day-ahead basis or for non-submission of schedule as per State Grid Code requirements;*
- d) Short-term Open Access Application Processing Fees;*
- e) Any other Fees approved by the Commission from time to time."*

### ***9.1.Registration or Connection Fees***

The Hon'ble Commission in MSLDC MTR Order in Case No. 171 of 2017 has approved Registration or Connection Fees at the rate of Rs. 20,000 per connection for connecting to the intra-state transmission system (InSTS). MSLDC humbly requests the Hon'ble Commission to retain the same fee and allow MSLDC to recover the said fees/charges. The registration charges shall be a one-time fee payable at the time of registration or seeking connection to InSTS. This will be applicable for all generating companies, distribution licensees and transmission open access users.

### ***9.2.Scheduling and Re-Scheduling Fees***

MSLDC requests the Hon'ble Commission to retain the Scheduling Fee of Rs. 2250 per day and Re-Scheduling Fees of Rs. 2250 per revision as approved under Case No. 171 of 2017.

### ***9.3.Short Term Open Access Application Processing Fees***

MSLDC requests the Hon'ble Commission to retain the Short Term Open Access (STOA) Application Processing Fee of Rs.7500 per application as approved under Case No. 171 of 2017.

### ***9.4.Renewable Energy Certificate Processing Fees***

MSLDC requests the Hon'ble Commission to retain the Renewable Energy Certificate Processing Fee of Rs.1000 per application as approved under Case No. 171 of 2017. MSLDC humbly requests the Hon'ble Commission to allow MSLDC to levy and recover proposed fees and charges for the Period for FY 2020-21 to FY 2024-25.

## 10.Compliance to Directives

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MSLDC submits its compliance to various directives of the Hon'ble Commission under Case No. 171 of 2017.

### *10.1. Ring-fencing and Autonomy*

#### **Directive**

The Commission is not clear whether the Commission's comments in the matter have been brought to the State Government and MSEB Holding Co Ltd. The Commission expects MSETCL to bring them to the notice of the State Government and MSEB Holding Co. Ltd. MSLDC is directed to submit a report on the progress in this matter every six months to the Commission.

#### **MSLDC Reply**

As on date, notification, by State Government w.r.t formation of separate company for SLDC as per section 32 of the EA 2003 is yet to be issued. However, pending such notification, MSETCL has taken several initiatives in order to achieve financial and operational autonomy to MSLDC. Some of the initiatives were already mentioned as part of the MSLDC MTR Petition in Case 171 of 2017. The same is reproduced as following:

"...

- *Proposal for ring-fencing and separate Board structure has been resubmitted to the MSETCL Board.*
- *Separate Bank account for MSLDC has been opened as per MSETCL Board Resolution from April, 2015. MSETCL Board has approved need-based financial support to MSLDC.*
- *The MSETCL Board has approved enhancement of delegation of financial powers of the Chief Engineer, MSLDC to the level of Executive Director, MSETCL vide Resolution dt. 16.03.2015.*
- *The MSETCL Board has delegated powers to depute MSLDC employees for training, workshops and seminars to the Chief Engineer, MSLDC, vide Circular dated 26 June, 2015. "*

Further, additional initiatives have been taken up subsequent to issuance of MSLDC MTR Order in Case No 171 of 2017 are as listed below:

- 1) MSEB – HCL vide Resolution No. 790/2018 dated 28.12.2018 has formulated a committee as under,
  - i) Shri. Arvind Singh, Pr. Secretary (Energy) : Chairman
  - ii) Shri. Sanjeev Kumar, CMD-MSEDCL : Member
  - iii) Shri. Parag Jain Nainutia, CMD-MSETCL : Member



iv) Shri. Vishwas Pathak, Director, MSEB-HCL : Member

v) Chief engineer, SLDC : Secretary

The terms of reference for the committee are as under:

- i. To undertake the study of the relevant provision of the Electricity Act, 2003 and rules/regulations made thereunder.
- ii. To undertake study tour of various STUs in India, if required;
- iii. To hold meetings/deliberations with the technical experts in relation to the subject;
- iv. To carry out the detailed impact assessment of separation of SLDC from MSETCL;
- v. to seek technical advice or assistance from any STU or firm / agency / body/ institution

Whenever required;

- vi. To authorize and approve the engagement of any legal, financial, accounting, management or other advisors in connection with the subject and payment of their fees;
- vii. To perform any other activities/functions as the Committee deem necessary or appropriate.

- 2) Further MSEB- HCL vide Resolution No. 816/2019 dated 18.06.2019 has accepted the recommendations of the committee and resolved as under:

*“RESOLVED THAT the Report of the Committee formed vide Resolution no. 790/2018 passed at Board meeting held on 28.12.2018 be and us hereby accepted.*

*RESOLVED FURTHER THAT approval of to Board be and is hereby accorded for the following, viz.*

- i.separation of the State Load Despatch Centre (SLDC) from MSETCL on the same lines as formation of Power System Operation Corporation (POSOCO) and its separation from Power Grid Corporation of India Ltd (PGCIL)*
- ii.Creation of a separate representative Board structure for governance of SLDC on lines of a wholly-owned subsidiary for its independent system operation in accordance with the Electricity Act, 2003 and National Electricity Policy;*
- iii.Creation the post of ‘Executive Director’ under MSEB Holding Company Limited to head the SLDC after its formation as a separate entity;*
- iv.Approaching the Government of Maharashtra for obtaining necessary approvals, sanctions, permission, etc. as may be required for this purpose; and*
- v.Engagement of any legal, financial, accounting, management or other advisors/consultants/Project managers by whatever name called in connection with the subject;*

- 3) MSETCL board of directors vide resolution no. 137/32 dated 05.09.2019 has taken note of MSEB-HCL board resolution No. 816/2019 dated 18.06.2019.

- 4) Subsequent to above activities MSEB-HCL has formulated a committee under Chairmanship the Director (Operations) MSETCL for under taking further activities related to MSLDC separation from MSETCL (Copy attached as Annexure - 6).

The petitioner has submitted the present status of activities pertaining to Ring Fencing. The petitioner shall update the Hon'ble Commission with regard to further progress in this area from time to time.

## ***10.2. Technology and Operational Systems Upgradation***

### **Directive**

The Commission has noted the submission of MSLDC in respect to technology and Operational System Upgradation. MSLDC should update the Commission of the status of regional energy accounting and the resolution of the software problems related to generation of FBSM bills on semi-annual basis. is not adequately prepared to meet the future challenges, especially the emerging need for large scale RE integration. There are operational constraints such as inadequate visibility, lack of required infrastructure, etc. MSLDC needs to schedule, monitor and manage communication and metering infrastructure for a large number of such small transactions. It has to be equipped for implementing automatic primary and secondary response systems.

MSLDC also needs to re-evaluate the metering and communication infrastructure. This will require development of infrastructure like scientific forecasting systems with the Generators and MSLDC. Adequate balancing mechanism also needs to be developed to deal with variable nature of RE sources. In the Report of the Technical Committee on Large Scale Integration of RE, need for Balancing, Deviation Settlement Mechanism and related issues issued by the Ministry of Power on 6 April, 2016, RE Generators have raised issues regarding curtailment by SLDCs because of inability to absorb large RE quantum, evacuation issues, and forecasting and scheduling. Hence, the Commission directs MSLDC to formulate a detailed action plan, also highlighting financial implications in this regard.

MSLDC should update the Commission of the status of regional energy accounting, and resolve software problems as it lags behind by 8 months. MSLDC should analyze ways to expedite regional energy accounting, which may require outsourcing, reviewing manpower requirements, and engaging technology partners as possible options for expediting energy accounting.

### **MSLDC Reply**

MSLDC in its earlier submissions in Case no 171 of 2017 had submitted its initiatives towards continuous technology upgradation and operational system upgradation. MSLDC had stated that it is a member of various Committees formed under WRPC (where POSOCO is also a member), which includes the SCADA Committee of the Western Region. The SCADA Committee regularly discusses various issues,

including the issue of technology upgradation and operation systems required for addressing present and future challenges emerging from market and other developments. Further, MSLDC is also member of URTDSM (Unified Real-time Dynamic State Measurement) scheme of PGCIL and closely associated in its implementation at MSLDC. The interaction with POSOCO at all levels is a continuous process and is going on seamlessly for addressing the day to day operational and long-term challenges.

Further, MSLDC would like to submit specific initiatives for meeting the various challenges highlighted in the directive by the Hon'ble Commission in the MTR Order of Case No 171 of 2017.

#### **Initiatives for RE integration:**

- Under Green Energy Corridor initiative of MoP, GoI has entrusted responsibility of implementation of Renewable Energy Management Centre (REMC) in all RE rich states including Maharashtra. PGCIL is nominated as Nodal Agency for REMC implementation. Accordingly, PGCIL has prepared state-wise Detailed Project Report (DPR) of the scheme and floated region-wise tender for competitive bids for REMC implementation. DPR for Maharashtra during May 2016. For Western Region, Tender process for REMC implementation is completed and is at the advanced stage of issuance of LOI. Implementation by PGCIL includes deployment of Hardware and REMC Application Software at Control Centre which will be funded through Grant Benefit Scheme from Indo-German consortium. The real time data required for REMC from RE generators/pooling stations shall be in scope of respective states to be arranged through concerned RE Generators.
- MSLDC has identified 60 nos. of RE Pooling Sub-stations connected to intra-state transmission system. REMC forecasting software has been developed with the help of Siemens and same is put into the operation with effect from 1 July 2019. REMC has access to the RE pooling sub-station wise data on real time basis. The REMC forecasting software is operating on trial run basis at present. It is envisaged that after implementation of above schemes all RE data from all RE pooling in Maharashtra will be available in near future soon.
- Presently, Wind & Solar Generation Forecasting started through REMC Forecasting Software. Forecasting of around 3000 MW Wind & 1300 MW Solar Generation is carried out. For balance capacity, Turbine level & Solar Module level data integration works are underway.

#### **Other technology up-gradation initiatives (viz. AMR implementation, Open Access processing, scheduling process):**

- **Automated Meter Reading (AMR) Implementation:** MSETCL and MSLDC have formulated

scheme for Automatic Meter Reading System. Under this scheme a pilot project for 25 Nos. ABT meter is completed and data is available at SLDC. Further, under phase-1 of AMR project ABT meters at 279 locations covering all CTU-STU interfacing points and energy injection points G<>T (except RE) is under implementation and 211 no. of meters are reporting to MSLDC through dual SIM GPRS modems. Under phase-II, all T<>D drawl points and RE injection interface (about 2500 ABT Meters) will be covered. AMR implementation is now looked after by MSETCL. MSETCL has floated tender for AMR implementation.

- **Web-based software for processing of Open Access Applications:** MSLDC has developed the online web-based software for Short Term Open Access application (STOA) processing. MSLDC process approximately 200-250 STOA every month. MSLDC has developed web based STOA software for processing of Short Term Open Access applications. Previously these applications were being processed offline manually which was tedious, time consuming & required substantial manpower & prone to error also. In order to make short term open access process faster, reliable, and accurate & error free, MSLDC has developed Web Based STOA software on cloud platform. Online payment facility is also provided to applicants through payment gateway in order to make payments easily. STOA Software helps in application processing as per timelines given in Regulations. Further, applicants can apply & keep track of status & receive approvals automatically through web portal and same is notified via SMS & e-mail.
- **Scheduling Software:** for easy integration of schedules and revisions thereof in the System for day to day activities, MSLDC has developed a web-based scheduling software same is in operation from 15 January 2019.
- **Addressing difficulties in FBSM:** FBSM database on Oracle 10g was hosted on IBM P Series Server with AIX OS (Proprietary Hardware and OS). M/S IBM declared end of support to these servers. The processing on these servers was also slow. Hence FBSM Database is migrated to new hardware with Linux Operating System (Open Source) & Oracle 12c. Now the processing of FBSM bills has been substantially improved.
- **REMC Scheduling Software:** REMC scheduling software for SLDC has been developed by M/s Siemens and put into operation w.e.f 1 July 2019. Wind & Solar Generation Scheduling as well as billing has been started through REMC Scheduling Software on trial run basis. The trail run operation will continue up to 31 December 2019, thereafter commercial bills shall be issued. The RE DSM billing software development is in progress which will be implemented before 1 January 2020. Similarly work of integration of REMC scheduling software and the existing conventional scheduling software is in progress. It is envisaged that after implementation of above schemes all RE data from all RE pooling in Maharashtra will be available in near future soon.
- **Web-based Outage Management System:** Web-based Outage Management System for processing of various outages on Transmission elements has been developed and implemented.
- **Upgradation of IT Security:** Upgradation of IT Security at SLDC by implementing Next

Generation Firewall at external layer (Perimeter Firewall) and at Internal Layer (Data Centre Firewall) and Creation of Demilitarized Zone (DMZ) for external users.

- **Upgradation of VPS System in Control Room:** The VPS System in Control Room was lamp based. In this system the illumination was not much bright. Also, lamps were subjected to failure intermittently, needs replacement frequently. Thus, maintaining cost was high. For REMC project VPS screen installed was LED based having brighter illumination and low maintenance. Accordingly, SCADA VPS screen was upgraded to LED based screen 4X2, with Aspect Ratio 16:09. Thus, VPS Screen was technologically upgraded by LED system and also matched with REMC Screen to maintain Aesthetics in Control Room.
- **FOR guided initiative of SAMAST implementation:** A Technical Committee was formed under the aegis of Forum of Regulators with one of the scope as implementation of ABT at State level and for addressing related issues w.r.t to power system operation and settlement. The said Committee adopted a report of Scheduling, Accounting, Metering and Settlement of Transactions in Electricity (SAMAST) prepared under the guidance of FOR, for implementation at state level. The report outlines detail steps for progressive implementation of Deviation Settlement Mechanism at state level.
- **Automatic Demand Response and Management:** Besides, MSLDC has formulated a scheme for implementation Automatic Demand Management System (ADMS) for 33/22/11 kV feeders emanating from MSETCL and MSEDCL sub-stations. After administrative approval of MSETCL Board, MSLDC has submitted proposal for funding from Power System Development Fund (PSDF). MoP has accorded approval for 90 % funding through PSDF. DPR was submitted to Hon'ble MERC and Hon'ble MERC has accorded in-principle approval for the schemes. MSEDCL has identified 621 nos. 33/22/11 kV feeders emanating from 63 nos. MSETCL sub-stations and 31 MSEDCL sub-stations for total quantum of 2157 MW to be automatically controlled from MSLDC through ADMS during system emergencies. Subsequently the ADMS scheme has been transferred to MSEDCL from 21st Feb 2019 (**Annexure - 7**).
- **Implementation of URTDSM scheme:** MSLDC is also member of URTDSM (Unified Real-time Dynamic State Measurement) scheme of PGCIL, and implementation at MSLDC. The URTDSM system is installed at MSLDC Control Room and site acceptance test is to be carried out. Further, the data of 15 nos. PMUs installed by MSETCL in different substations has integrated with URTDSM. The dynamic data of PGCIL sub-stations (10 nos.) in Maharashtra and MSETCL sub-stations where PGCIL has commissioned PMU and MSETCL sub-station with PMU installed by MSETCL will be available in URTDSM. The Site Acceptance Test (SAT) is completed during 03/05/2018 to 10/05/2018, whereas the System Availability Test (SAVT) is completed on 22 July 2018. The project is commissioned on 24th May 2019 and handed over to MSLDC.
- **Monthly Transmission Loss assessment through SAP-ERP:** MSETCL and MSLDC has developed a system for loss computation on monthly basis through ERP-EAS system and Transmission System Loss figures for last month are being displayed on MSLDC website by 20th

of every month.

Post MTR order in case No 171 of 2017 , the initiatives taken by the petitioner in technology upgradation has been presented above . The petitioner in between as part of various regulatory proceeding updated the Commission about the progress in the area with the help of oral and written submission. Henceforth also the petitioner shall periodically update the Commission on regular basis.

### ***10.3. Preparedness of SLDC in handling future challenges***

#### **Directives**

As per the Technical Committee Report on Large scale integration of RE, in order to integrate the high penetration of renewables into the grid effectively, several actions have to be taken such as frequency control, introduction of ancillary services, forecasting, scheduling, deviation settlement mechanism, balancing mechanism, robust data telemetry and communication systems and establishment of RE Management Centres (REMCs). Implementation of Ancillary Services would also bring reserves in the SLDCs' ambit.

- With the evolution of the market design and upcoming Regulations in order to integrate RE, MSLDC as the System Operator needs to be equipped with technical capabilities and follow best industry practices as used in the developed power markets.
- MSLDC has curtailment issues because of inability to absorb large quantities of RE, and issues of evacuation, forecasting and scheduling. There are software restrictions, one of the issues being that the software assumes that frequency will be 50 Hz and there will be no unscheduled drawl. The software cannot do any real time Merit Order Despatch (MOD) or curtailment analysis

#### **Upcoming Regulations that will impact SLDC**

- Regulatory Framework for Forecasting of Renewable Generation and Scheduling including Aggregators and Implementation at intra-state level (June 2016)
- Regulatory Framework for Communication in Power Sector, Availability of Real Time Data at the SLDCs/RLDCs/NLDC particularly of RE generators (June 2016)
- Implementation of REMCs – (April 2017)
- To face these upcoming challenges, robust communication of data from RE Generators to MSLDC is required. MSLDC should work out the communications system requirements for getting real time data from the Generators. The software used at MSLDC is obsolete. The Commission advises SLDC to obtain technical support in order to resolve software restrictions and study the possibility of getting a technology partner on board.
- The Commission directed MSLDC to update the Commission on aforementioned initiatives on quarterly basis.

## MSLDC's Reply

Subsequent to submission made under Case no 171 of 2017, MSLDC has taken following initiatives to improve the software related issues and communication of data from RE generators.

- **FBSM database migration:** FBSM database on Oracle 10g was hosted on IBM P Series Server with AIX OS (Proprietary Hardware and OS). M/S IBM declared end of support to these servers. The processing on these servers was also slow. Hence FBSM Database is migrated to new hardware with Linux Operating System (Open Source) & Oracle 12c. Now the processing of FBSM bills has been substantially improved.
- **Timely issuance of FBSM bills:** Weekly FBSM bills up to third week of June-17 issued (Total 59 bills issued). Outsourcing personnel recruited by MSLDC for speeding up the FBSM billing work which resulted in issuance of nearly 6-8 bills per month instead of only 2-3 bills earlier. Replica of application server prepared which enabled more operation to be performed by engineer. New Database server installed with high end features.
- **Separation of scheduling billing activities:** The billing software shares common database with scheduling application. During the process of daily scheduling / rescheduling activities, increased no. of scheduling entities, manual up loading of ABT meter data and generation bills, the response time of FBSM application increased drastically. FBSM billing data uploading and bill generation activities could not be undertaken when scheduling activities are in progress.
- To overcome this problem, new scheduling software (MiPDDSS) is developed through M/s Power Research and Development Consultant (PRDC), same is put into operation w.e.f. 1 January 2019.
- **Development of scheduling software as per DSM mechanism:** As per MERC directives, the DSM mechanism is mandated to be implemented from 1st April 2020. Accordingly, development of scheduling software as per new DSM Mechanism is being developed with help of M/s PwC. At present the billing mechanism changed from FBSM to DSM.

the initiatives taken by the petitioner in to prepared itself in handling the future challenges has been presented above . The petitioner in between as part of various regulatory proceeding updated the Commission about the progress in the area with the help of oral and written submission. The submissions with regard to present status of FBSM implementation and DSM mechanism has been made during the regulatory proceedings of Case No 297 of 2018. The petitioner will adhere to the time line specified by Hon'ble Commission in said order.

#### ***10.4. Reactive Energy Charges***

##### **Directives**

The Commission is disappointed to note that even after laps of two years from issuance of these directives, MSLDC is yet to finalize the issue of accounting and settlement of Reactive Energy charges. Therefore, MSLDC is directed to submit its action plan to address this issue in a time bound manner to the Commission within three months from the date of this order based on which the claim of MSPGCL could be settled and objections duly responded.

##### **MSLDC's Reply**

In Case no 171 of 2017, MSLDC has submitted that it has taken up the issue of reactive energy balance and reactive energy pool settlement in grid co-ordination committee meeting. As directed by the GCC Chairman in the 78th GCC meeting a Committee was constituted to formulate draft mechanism for settlement of reactive energy pool and infrastructure requirement thereof. MSLDC shall operate reactive pool account on the same lines as DSM pool account. The framework for the same will be submitted to Hon'ble Commission for kind perusal and approval. Subsequent to this, following actions have been taken by MSLDC in this matter.

- On dated 17.01.2017, a committee comprising of representatives of STU, MSLDC, Transmission Licensees, Distribution Licensees and major Generating Stations was formulated.
- Three meetings viz. 30.11.2017, 08.08.2018 and 01.11.2018 were conducted.
- A representative from WRLDC was requested to explain the mechanism adopted at Regional level. A representative of Meter Manufacturer was called for checking the possibility of recording of block-wise Reactive Energy.
- Draft Reactive Energy Charges Mechanism has been submitted to Hon'ble MERC vide letter No. MSLDC/TECH/MERC/351, dated 27.02.2019 for approval. (**Annexure – 8**)
- For implementation of the DSM Regulations in the State, order has been issued for development of software. A module of Accounting and deviation billing of Reactive Energy has been incorporated in the said package.

Once the draft mechanism is approved by Hon'ble MERC, the same shall be implemented in the State.

#### ***10.5. Directives given under para 4.7.6, 5.5.7 & 6.5.8 of MTR order in case no 171 of 2017***

The petitioner would like to submit that the DPR for i) Hardware IT, firewall server ii) construction of compound wall (UCR wall) has submitted by petitioner after the issuance of



MTR order and same were approved by Hon’ble Commission. The status of the approved DPR scheme has been provided in Form 3.2.

## 11.Prayers

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MSLDC respectfully prays the Hon'ble Commission to

1. Admit the Multi-Year Tariff in accordance with Regulations 5.1 of the MERC MYT Regulations, 2019.
2. Allow truing-up for FY 2017-18 and FY 2018-19 of Maharashtra State Load Despatch Centre (MSLDC) based on the Audited Accounts and Allocation Statement for the respective financial year, and according to the applicable provisions under MERC (Multi Year Tariff) Regulations, 2015 and other Regulations.
3. Allow Provisional true up for FY 2019-20 of MSLDC according to applicable provisions under MERC (Multi Year Tariff) Regulations, 2015, and other Regulations.
4. Approve MSLDC Charges for FY 2020-21 to FY 2024-25 as per MERC MYT Regulations 2019 that would help in recovery of consolidated ARR for respective years of the 4<sup>th</sup> Control Period.
5. Allow MSLDC to use the LDCD fund, as created by the Hon'ble Commission in MSLDC MTR Order in Case No. 171 of 2017 dated 12 Sept 2018, for the purpose of capitalization during FY 2018-19 to FY 2021-22.
6. Continue the various charges i.e., Short-term Open Access Application Processing Fees, Registration or Connection Fees, Scheduling Fees/Charges and Re-Scheduling Fees, Renewable Energy Certificate Processing Fees as approved by the Hon'ble Commission in MSLDC MTR Order in Case No. 171 of 2017 dated 12 Sept 2018.
7. Approve the SLDC's request for relaxation of certain parameters as sought in the Petition, while approving this Multi-Year Tariff Petition.
8. Grant an opportunity in person before Hon Commission during the hearing on the above matter.
9. Condone any inadvertent omission/errors/short comings and permit the petitioner to add/change/modify/alter this filing and make future submissions as may be required at a future date.

**Anil Vilas Kolap**  
**Chief Engineer MSLDC**

Place: Airoli, Navi Mumbai  
Date:....

**List of Annexure:**

Annexure 1	MSLDC Multi Year Tariff Petition Formats for submission
Annexure 2	MSLDC Audited accounts & allocation statement for FY 2017-18 & FY 2018-19 based on Audited TB sheet .
Annexure 3	Broad break-up of R&M Expenditure under “Plant& Machinery” for FY 2017-18 and FY 2018-19.
Annexure 4	Extract of Minutes of Meeting of 32 <sup>nd</sup> TCC regarding Western Region Power Committee charges
Annexure 5	Circulars related to Wage Revision implemented from April, 2018
Annexure 6	Documents related to ring-fencing and autonomy of MSLDC
Annexure 7	Letter related to transfer of ADMC scheme to MSEDCL
Annexure 8	Letter submitted to MERC for finalization of guidelines of reactive charges mechanism
Annexure 9	Trial balance sheet of FY 2017-18 and FY 2018-19 signed by Statutory Auditor