BEFORE

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION, SHILLONG

PETITION

FOR

MULTI YEAR TARIFFFOR NUHEP

FOR FY 2021-22 TO FY 2023-24& DETERMINATION OF GENERATION TARIFF FOR FY 2021-22

FILED BY

MEGHALAYA POWER GENERATION CORPORATION LTD.

LumJingshai, Short Round Road, Shillong - 793 001

BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

At its office at Lower Lachumiere, Shillong – 793001

FILE / PETITION NO………

IN THE MATTER OF

MULTI YEAR TARIFFOF NUHEP FOR FY 2021-22 TO FY 2023-24 & DETERMINATION OF GENERATION TARIFF FOR FY 2021-22 UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2014 AND UNDER SECTIONS 62 & 64 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

AND IN THE MATTER OF

MEGHALAYA POWER GENERATION CORPORATION LIMITED, LUMJINGSHAI, SHILLONG – 793001, MEGHALAYA

PETITIONER

The Petitioner respectfully submits as under:

1. In exercising its powers conferred under sections 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010" on 31st March 2010 leading to restructuring and unbundling of erstwhile Meghalaya State Electricity Board (MeSEB) into four entities namely:

    a. **Meghalaya Energy Corporation Limited (MeECL**): the Holding Company;
    b. **Meghalaya Power Distribution Corporation Limited (MePDCL):**the Distribution Utility;
    c. **Meghalaya Power Generation Corporation Limited (MePGCL**): the Generation Utility;
    d. **Meghalaya Power Transmission Corporation Limited (MePTCL):**the Transmission Utility.

2. However, the holding company - MeECL carried out the functions of distribution, generation and transmission utilities from 1st April 2010 onwards, even after restructuring. Therefore, through notification dated 31st March 2012, the State Government notified an amendment to The Power Sector Reforms Transfer Scheme leading to effective unbundling of MeECL into MeECL (Holding Company), MePDCL (Distribution Utility), MePGCL (Generation utility) and MePTCL (Transmission Utility) from 1st April 2012.

3. On 23rd December 2013, the Government of Meghalaya issued the latest transfer scheme notification thereby notifying the Assets and Liabilities as on 1st April 2010 to be vested in MeECL. Subsequently, the Government of Meghalaya notified the 4th Amendment to the Notified Transfer Scheme dated 31st March 2010 on 29th April 2015, wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.

4. MePGCL began segregated commercial operations as an independent entity from 1st April 2013.

5. The petitioner has submitted the actual expenses of MePGCL and MeECL for FY 2018-19 based on the audited Statement of Accounts and actual expenses for FY 2019-20 based on provisional statement of accounts.

6. The expenses of the holding company, MeECL is apportioned equally among the generation, transmission and distribution utilities since the MeECL is an administrative setup for all the three subsidiaries and undertakes common corporate functions of the three companies.

7. The Meghalaya State Electricity Regulatory Commission (hereinafter referred to as "MSERC" or "the Hon'ble Commission") is an independent statutory body constituted under the provisions of Part – X (Sections 76 to 109) of the Electricity Act (EA), 2003. The Hon'ble Commission is vested with the authority of regulating the power sector in the State inter alia including determination of tariff for electricity consumers.

8. The generation utility filed the petition for GenerationBusiness Plan for FY 2021-22 to FY 2023-24whose order was notified by the Hon'ble Commission on 30 September 2020

9. Based on the Audited Statement of Accounts for FY 2018-19, Provisional Statement of Accounts for FY 2019-20& Business Plan Order dated 30 September 2020, estimations for the FY 2020-21 and projections for FY 2021-22 to FY 2023-24have been prepared for the purpose of MYT 3rd Control period FY 2021-22 to FY 2023-24

10. The petition includes determination of ARR for the third Control Period (FY 2021-22 to FY 2023-24) which has been prepared in accordance with The Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 (hereinafter referred to as "MYT Regulations, 2014") and the tariff determination for NUHEP for FY 2021-22.

11. The Board of Directors of MePGCL has accorded approval for filing of this petition and authorized the undersigned to file the petition accordingly. A copy of the Board's resolution is hereby enclosed as **Annexure-A**.

12. The applicant, therefore, humbly prays before the Hon'ble Commission to pass appropriate order on the following:

    a) Approval of Net ARR for FY 2021-22, FY 2022-23 & FY 2023-24 as proposed in this Petition.
    b) Approval of tariff for FY 2021-22 as proposed in this petition.
    d) To pass such orders, as Hon'ble Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.
    e) To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submissions as required.

(A Lyngdoh)
Superintending Engineer (PM)

For and on behalf of
Meghalaya Power Generation Corporation Ltd

Contents

List of Tables

1 Introduction

1.1 Provisions of Law for Multi Year Tariff

1.1.1 The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 which were notified in the Meghalaya Gazette on 25th September 2014. It is submitted that Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) regulations, 2014 since amended vide notification dated 18 June 2020, states as under:

"The applicability of these Regulations is hereby extended for a further period of 3 years with effect from 1.04.2021 to 31.03.2024 onwards".

1.1.2 As per Regulations 3, 4 & 7 of the MYT Regulations, 2014, the Hon'ble Commission will determine ARR & Tariff for the GenerationUtility under Multi Year Tariff framework. The relevant regulations are reproduced below for reference.

*"**3 Scope of Regulation***

3.1 The Commission shall determine tariff within the Multi-Year Tariff framework, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:

i. Supply of electricity by a Generating Company to a Distribution Licensee:

Provided that where the Commission believes that a shortage of supply of electricity exists, it may fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating Company and a Distribution Licensee or between distribution licensees, for a period not exceeding one year to ensure reasonable prices of electricity;

ii. Intra-State transmission of electricity and SLDC charges;
iii. Intra-State Wheeling of electricity;
iv. Retail supply of electricity:

Provided that in case of distribution of electricity in the same area by two or more Distribution Licensees, the Commission may, for promoting competition among Distribution Licensees, fix only maximum ceiling of tariff for retail sale of electricity:

Provided further that where the Commission has allowed open access to certain consumers under sub-section (2) of Section

42 of the Act, the Commission shall determine the wheeling charges, cross subsidy surcharge, additional surcharges and other open access related charges in accordance with these regulations and MSERC (Terms and Conditions of Open Access) Regulations 2012 as applicable and as amended through Orders issued by the Commission from time to time

……………………

*4 **Multi-Year Tariff framework***

4.1 The Commission shall determine the tariff for matters covered under clauses (i), (ii), (iii) and (iv) of regulation 3 above under Multi- Year Tariff framework with effect from April 01, 2015.

Provided that the Commission may, either on suo-moto basis or upon application made to it by an applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.

4.2 The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, and Distribution Business:

a) *A detailed Business Plan based on the principles specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval*:

.....

*7 **Applicability***

7.1 The Multi-Year Tariff framework shall apply to applications made for determination of tariff for a Generating Company, Transmission Licensee, and Distribution Licensee for Distribution Business."

1.1.3 The Regulation 6 of the MYT Regulations, 2014, provides the guidelines for filing of Multi Year Tariff. The relevant sections are reproduced below:

*"**6 Accounting statement and filing under MYT***

6.1 The filing under MYT by the Generating Company, Transmission Licensee, and Distribution Licensee, shall be done on or before 30th November each year to the Commission and in compliance with the principles for determination of ARR as specified in these Regulations, in such formats and at such time as may be prescribed by the Commission from time to time. The filing of truing up of petitions prior to MYT period shall be done in the manner and at such time as may be decided by the Commission.

6.2 The filing of MYT Petition for the Control Period under these Regulations shall be as under:

a) MYT Petition shall comprise of:

i. Multi-year Aggregate Revenue Requirement for the entire Control Period with year-wise details;

ii. Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the first year of the Control Period under these Regulations.

iii. Application for determination of tariff for first year of the Control Period.

....

1.1.4 In the context of filing of MYT petition, it is important to note that M/s RSM& Associates has been appointed as Statutory Auditor of MePGCL, and M/s Amit Hemraj Jain & Associates has been appointed as Statutory Auditor of MeECL. The firms are Chartered Accountancy firms, appointed as Statutory Auditors for the FY 2018-19 by the Comptroller & Auditor General of India (C&AG). The audit process for FY 2018-19 is completed for MePGCL and for MeECL. MePGCL shall separately submit the true up petition for FY 2018-19 along with the audited reports for FY 2018-19 as soon as the audit process by CAG is complete. As such, MePGCL requests the Commission to consider the MYT petition based on the finalized statement of accounts for FY 2018-19 and provisional statement of accounts for FY 2019-20.The relevant regulation is reproduced below for ready reference:

"18 Filing Procedure

18.2 Provided that the information should be based on audited accounts and in

case audited accounts of previous year is not available audited accounts for the year immediately preceding the previous year should be filed along with the unaudited accounts for the previous year."

1.1.5 MePGCL is filing separate petitions for the new projects of MLHEP, NUHEP and Lakroh as per the applicable regulations MSERC MYT Tariff Regulations 2014 since the separate audited capital cost for these projects are available. This is also in line with the past practice adopted by the Hon'ble Commission. However, the Hon'ble Commission of late has been approving the consolidated ARR of MePGCLas a whole which is not in accordance with the regulations of MSERC. As such, the Hon'ble Commission is requested to approve the ARR for each of the new projects separately to enable accurate determination of ARR and accountability in efficiency and operations also.

1.2 Submissions before the Hon'ble Commission

MePGCL hereby submits the petition under section 61, 62 (1) (a) of the Electricity Act, 2003, MSERC Terms (Multi Year Tariff) Regulations, 2014 for MYT for FY 2021-22 to FY 2023-24& Tariff for FY 2021-22.

2 True Up of NUHEP Generation Business for FY 2018-19

On account of the lockdown imposed during Covid-19 pandemic, and thereby the restriction in movement, has led to delay in the start of audit process of MePGCL as well as MeECL business for FY 2018-19. The statutory audited accounts of MePGCL and MeECL for FY 2018-19 are completed. However, the C&AG audit for MePGCL and MeECL for FY 2018-19 is still in process.

Since the existing MSERC Regulations mandates the completion of both statutory and C&AG audit before filing of true up petition, the utility will undertake the truing up exercise for FY 2018-19 once the audit process by CAG is completed. The utility prays for leave of submission of true up petition for FY 2018-19 along with the MYT petition and allow it to file the petition separately for timely determination of MYT ARR and tariff of FY 21-22.

.

3 ARR for 3rd Control Period of FY 2021-22 to FY 2023-24

3.1 Approach

In accordance with the provisions of the MYT Regulations, 2014MePGCL hereby submits ARR for FY 2021-22 to FY 2023-24 for NUHEP, based on actuals of FY 2018-19 and provisionals of FY 2019-20& approved business plan for the control period.

The Hon'ble Commission notified the Business plan order for 3rd Control Period FY 2021-22 to FY 2023-24 on 30 September2020 which includes capital investment plan, financing plan, physical targets etc. for the next control period. MePGCL is using it as a base along with audited statement of accounts of FY 2018-19 and provisional statement of accounts FY 2019-20 for determination of ARR for future periods.

3.2 Components of Tariff

The Regulation 54 of the MYT Regulations, 2014, provides the Components of tariff for MePGCL. The relevant regulation is reproduced below for ready reference:

*"**54 Components of tariff***

54.1 Tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges to be in the manner provided hereinafter.

54.2 The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:

(a) Return on equity as may be allowed

(b) Interest on Loan Capital;

(c) Operation and maintenance expenses;

(d) Interest on Working Capital;

(e) Depreciation as may be allowed by the Commission;

(f) Taxes on Income.

54.3 The annual capacity charges recoverable shall be worked out by deducting other income from the total expenses"

3.3 NUHEP Asset Base and Approved Capital Expenditure and Capitalization

3.3.1 Capital Expenditure& Capex for Control Period

The Hon'ble Commission had not approved any new capex and capitalization for the control period in line with the investment plan submitted by MePGCL. Thus, there is no capex and capitalization impact for the control period for NUHEP.

3.3.2 Asset Base of NUHEP for Control Period

From FY 2018-19, MePGCL has implemented IND AS Accounting Standard in line with Ministry of Corporate Affairs (MCA)'s norms. The IND AS are basically standards that have been harmonised with the IFRS to make reporting by Indian companies more in line with the global standards.

Impact of Ind AS on Asset Value in Accounts:

Ind AS 101 permits a first-time adopter to elect to continue with the carrying value for all of its property, plant and equipment as recognised in the financial statement as at the date of transition to Ind AS, measured as per the previous GAAP and use that as its deemed cost as on the date of transition.

On transition to Ind AS, the company had elected during the Financial Year 2016-17 to continue with the carrying value of its property, plant and equipment recognized as on 1st of April, 2015 measured as per the previous GAAP and used that carrying value as the deemed cost of the property, plant and equipment for furtherance of recognition and presentation thereon. Thus, the asset value in Note 2 "PROPERTY, PLANT AND EQUIPMENT" for FY 2018-19 and FY 2019-20 accounts is the deemed asset value.

However, components like depreciation is calculated on the historical value of the asset which is the Gross Fixed Asset value i.e. GFA (as per MSERC MYT Regulations, 2014). T**he historical asset value of asset is the asset base without IND AS adjustment** and the same is shown in **Note 2: PROPERTY, PLANT AND EQUIPMENT Without IND AS Adjustment portion of** the FY 2019-20 accounts.

MePGCL has also separately audited the NUHEP assets for FY 2018-19 and is attached as **Annexure B.** Thus, the asset base of NUHEP in line with audited FY 2018-19 and provisional FY 2019-20 accounts is given below:

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening GFA	600.78	601.88	604.13	604.13	604.13	604.13
Additions during the year	1.10	2.25	-	-	-	-
Retirements during the year	-	0.00	-	-	-	-
Closing GFA	**601.88**	**604.13**	**604.13**	**604.13**	**604.13**	**604.13**

3.4 Operation and Maintenance Expense

As per Regulation 56 of the MYT Regulations, 2014, the Operation and Maintenance Expenses (O&M) is a sum of Employee Cost, Repairs and Maintenance (R & M) Expense and Administrative and General (A & G) Expenses. The extract of the regulation is reproduced:

"56 Operation and maintenance expenses

56.1 Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads:

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses

56.2 Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

56.3 The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for2003-04 to 2007-08 price level. The average normal O&M expenses at2007-08 price level shall be escalated at the rate of 5.72% to arrive at theism expenses for the year 2009-10.

56.4 The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

56.5 The O&M expenses for 2009-10 shall be escalated further at the rate of5.72% per annum as arrive at the operation and maintenance expenses forth subsequent years of the tariff period.

56.6 In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @5.17% per annum up to the year 2007-08and then averaged to arrive at the O&M expenses at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period. ***(The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation).***

56.7 In case of hydro generating stations declared under commercial operation on or after 01/04/2009, O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and shall be subject to annual escalation at 5.72% for the subsequent years"

Since NUHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 56 (7) at 2% of project cost and further escalated at 5.72% to arrive at O & M expenses for FY 2021-22, to FY 2023-24.

Table 1: O & M Expenditure of NUHEP for the Third Control Period

Particulars	Amount (INR Crore)
Project Cost	580.71*
O&M Expenses for FY 2017-18 (2% of Project Cost)	11.61
O&M Expenses for FY 2018-19 (5.72% escalation over previous Year)	**12.28**
O&M Expenses for FY 2019-20 (5.72% escalation over previous Year)	**12.98**
O&M Expenses for FY 2020-21 (5.72% escalation over previous Year and ROP Impact) **	**17.43**
O&M Expenses for FY 2021-22 (5.72% escalation over previous Year)	**18.43**
O&M Expenses for FY 2022-23 (5.72% escalation over previous Year)	**19.48**
O&M Expenses for FY 2023-24 (5.72% escalation over previous Year)	**20.59**

* The Hon'ble Commission in its true up order for FY 2017-18, has considered the project cost of NUHEP at INR 580.71 crore. Hence, the petitioner is also considering the same for O&M cost calculation purpose.

** Since MePGCL has already implemented a revised pay scale of employees effective from January 2020, it is taking that into account as well to project O&M for FY 2020-21

Thus, FY 20-21 O&M = O&M 2019-20 *1.0572* ROP Impact (27% as stated in detail in employee expense head in Old Plants petition)

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses as computed above on normative basis for NUHEP for third control period, i.e., FY 2021-22, to FY 2023-24.

3.5 Return on Equity

3.5.1 The relevant regulations for determination of debt-equity ratio are extracted from the MSERC MYT Regulations, 2014 and reproduced for reference below:

"27 Debt-Equity Ratio

27.1 For a project declared under commercial operation on or after 1.4.2015, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan;

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

Provided further that equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Provided any grant obtained for execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

Explanation:- The premium, if any, raised by the generating company or the transmission licensee or the distribution licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure.

27.2 In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2015 shall be considered.

27.3 Any expenditure incurred or projected to be incurred on or after 1.4.2015as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in this regulations."

3.5.2 The Regulation 31 of the MYT Regulations, 2014, provides for computation of Return on Equity (RoE). The extract is reproduced below:

"31 Return on Equity

31.1 Return on equity shall be computed on the equity base determined in accordance with regulation 27 and shall not exceed 14%.

Provided that in case of generation & transmission projects commissioned after notification of these regulations, an additional return of 0.5 % shall be allowed if such projects are completed within the time line as specified in CERC Tariff Regulations.

Provided that in case of generation & transmission projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any time and cost overrun whatsoever.

Provided that equity invested in a foreign currency may be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

- *The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.*
- *Internal resources created out of free reserves and utilized for meeting capital expenditure shall also be treated as a part of equity.*

....

3.5.3 For computation of RoE till 1st April, 2015, the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2011 (hereinafter referred as Tariff Regulations, 2011) have been followed. The relevant provision of Tariff Regulations, 2011 is reproduced below:

*"**101. Return on Equity***

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 100, at a fixed rate of 14 percent, per annum.

Provided that equity invested in a foreign currency may be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing. The difference in actual exchange rate and the provisional exchange rate considered while determining the ARR shall be taken into consideration at the time of 'Truing up'.

(2) The equity amount appearing in the audited Balance Sheet or as per Transfer Scheme Notification will be taken into account for the purpose of calculating the return on equity for the first year of operation, subject to such modifications as may be found necessary upon audit of the accounts if such a Balance Sheet was not audited.

...."

3.5.4 The petitioner has projected the Return on Equity for third control period based on the average asset base for NUHEP. This is similar to the approach followed by the Hon'ble Commission in its past few tariff and true up orders. In the case of NUHEP, it may be noted that there is no funding of capital cost by grant. Since there is no grant portion in NUHEP, the whole of asset has been used for calculation of equity base and subsequent return on equity.

3.5.5 Based on the total asset base (Section 3.3.2 of the petition) and the Hon'ble Commission's methodology, the return on equity for the control period is given below:

Table 2: Return on Equity for NUHEP for the Third Control Period

Sl. No.	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Opening GFA for the Year	600.78	601.88	604.13	604.13	604.13	604.13
2	Closing GFA for the Year	601.88	604.13	604.13	604.13	604.13	604.13
3	Average Assets Base for the Year	601.33	603.00	604.13	604.13	604.13	604.13
4	Debt component (70% of GFA)	420.93	422.10	422.89	422.89	422.89	422.89
5	Equity component (30% of GFA)	180.40	180.90	181.24	181.24	181.24	181.24
6	RoE (%)	14%	14%	14%	14%	14%	14%
7	**Return on Equity (in Rs. Cr.)**	**25.26**	**25.33**	**25.37**	**25.37**	**25.37**	**25.37**

3.5.6 The petitioner would however like to submit that the issue of Return on Equity (methodology of MeECL& its subsidiaries vs methodology of MSERC: APTEL Case no 46 of 2016) is still subjudice. Further the petitioner has appealed against the methodology in the review petition of true up FY 2016-17 whose order is still due from the Hon'ble Commission. In case of favourable order to the petitioner with respect to the methodology adopted for return on equity, the petitioner will reclaim/adjust the additional claim of return on equity in the subsequent tariff petitions. However, the petitioner has hereby claimed return based on the methodology adopted by the Hon'ble Commission in its past orders to avoid ambiguities in figures/calculation resulting in wrong calculation and lower amount of RoE being approved by the Hon'ble Commission.

3.5.7 MePGCL humbly prays before the Hon'ble Commission to kindly approve the RoE for NUHEPas per the above computations.

3.6 Depreciation

3.6.1 The Gross Fixed Asset (GFA) base for FY 2018-19 and FY 2019-20 as shown in Section 3.3.2 (without IND AS adjustment) represents the historical asset value of asset which has been used in the calculation of depreciation component. The rate of depreciation for various categories of assets has been considered strictly as per the rates as stipulated in the MSERC MYT Regulations, 2014. It may be reiterated that since this project is funded completely by debt and equity and there is no grant portion against this project, there is no deduction of depreciation on assets funded through grants. The Hon'ble Commission is requested to take this into account during calculation of depreciation.

3.6.2 Based on the above, the actual depreciation in FY 2018-19, FY2019-20, estimated depreciation in FY 2020-21 and projections for FY 2021-22, FY 2022-23, FY 2023-24 are shown in the following tables. The detailed calculation is also shown in **Format 6**, **Annexure C** for reference.

Table 3: Actual Depreciation Charges of NUHEP for FY 2018-19

Value of Assets and Depreciation: 2018-19 (Actual) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	-	0.41	-	0.41	-
2	Buildings	94.86	-	-	94.86	3.17
3	Hydraulic Works	310.61	0.03	-	310.63	16.40
4	Other Civil Works	31.80	0.57	-	32.38	1.07
5	Plant & Machinery	159.89	0.01	-	159.90	8.44
6	Lines & Cable Network	3.56	-	-	3.56	0.19
7	Vehicles	0.04	-	-	0.04	0.00
8	Furniture & Fixtures	-	0.08	-	0.08	0.00
9	Office Equipment	0.02	-	-	0.02	0.00
10	Assets not in use	-	-	-	-	-
	Total	**600.78**	**1.10**	**-**	**601.88**	**29.28**

Table 4: Provisional Depreciation Charges of NUHEP forFY 2019-20

Value of Assets and Depreciation: 2019-20 (Provisional) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	0.41	0.07	-	0.48	-
2	Buildings	94.86	0.30	-	95.16	3.17

Value of Assets and Depreciation: 2019-20 (Provisional) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
3	Hydraulic Works	310.63	1.00	0.00	311.64	16.40
4	Other Civil Works	32.38	0.85	-	33.23	1.08
5	Plant & Machinery	159.90	0.02	-	159.93	8.44
6	Lines & Cable Network	3.56	-	-	3.56	0.19
7	Vehicles	0.04	-	-	0.04	0.00
8	Furniture & Fixtures	0.08	-	-	0.08	0.01
9	Office Equipment	0.02	-	-	0.02	0.00
10	Assets not in use	-	-	-	-	-
	Total	**601.88**		**0.06**	**604.13**	**29.29**

Table 5: Estimated Depreciation Charges of NUHEP forFY 2020-21

Value of Assets and Depreciation: 2020-21 (Estimated) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	0.48	-		0.48	-
2	Buildings	95.16	-		95.16	3.18
3	Hydraulic Works	311.64	-		311.64	16.45
4	Other Civil Works	33.23	-		33.23	1.11
5	Plant & Machinery	159.93	-		159.93	9.28
6	Lines & Cable Network	3.56	-		3.56	0.19
7	Vehicles	0.04	-		0.04	0.00
8	Furniture & Fixtures	0.08	-		0.08	0.00
9	Office Equipment	0.02	-		0.02	0.00
10	Assets not in use	-	-		-	-
	Total	**604.13**	**-**		**604.13**	**30.22**

Table 6: Projected Depreciation Charges of NUHEP forFY 2021-22

Value of Assets and Depreciation: 2021-22 (Projected) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	0.48	-		0.48	-
2	Buildings	95.16	-		95.16	3.18
3	Hydraulic Works	311.64	-		311.64	16.45
4	Other Civil Works	33.23	-		33.23	1.11
5	Plant & Machinery	159.93	-		159.93	9.28
6	Lines & Cable Network	3.56	-		3.56	0.19
7	Vehicles	0.04	-		0.04	0.00
8	Furniture & Fixtures	0.08	-		0.08	0.00
9	Office Equipment	0.02	-		0.02	0.00
10	Assets not in use	-	-		-	-
	Total	**604.13**	**-**		**604.13**	**30.22**

Table 7: Projected Depreciation Charges of NUHEP forFY 2022-23

Value of Assets and Depreciation: 2022-23 (Projected) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	0.48	-		0.48	-
2	Buildings	95.16	-		95.16	3.18
3	Hydraulic Works	311.64	-		311.64	16.45
4	Other Civil Works	33.23	-		33.23	1.11
5	Plant & Machinery	159.93	-		159.93	9.28
6	Lines & Cable Network	3.56	-		3.56	0.19
7	Vehicles	0.04	-		0.04	0.00
8	Furniture & Fixtures	0.08	-		0.08	0.00
9	Office Equipment	0.02	-		0.02	0.00
10	Assets not in use	-	-		-	-
	Total	**604.13**	**-**		**604.13**	**30.22**

Table 8: Projected Depreciation Charges of NUHEP forFY 2023-24

Value of Assets and Depreciation: 2023-24 (Projected) (INR Cr)						
Sl. No.	**Particulars**	**Opening GFA**	**Addition**	**Withdrawn**	**Closing GFA**	**Depreciation**
1	Land & Land rights	0.48	-	-	0.48	-
2	Buildings	95.16	-	-	95.16	3.18
3	Hydraulic Works	311.64	-	-	311.64	16.45
4	Other Civil Works	33.23	-	-	33.23	1.11
5	Plant & Machinery	159.93	-	-	159.93	9.28
6	Lines & Cable Network	3.56	-	-	3.56	0.19
7	Vehicles	0.04	-	-	0.04	0.00
8	Furniture & Fixtures	0.08	-	-	0.08	0.00
9	Office Equipment	0.02	-	-	0.02	0.00
10	Assets not in use	-	-	-	-	-
	Total	**604.13**	**-**	**-**	**604.13**	**30.22**

MePGCL humbly prays before the Hon'ble Commission to kindly approve the depreciation charges for NUHEP as computed above.

3.7 Interest and Finance Charges

3.7.1 As per Regulation 32 of the MYT Regulations, 2014, Interest and Finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution. It is submitted that the Interest on Loan for the control period has been computed by considering Interest obligation for existing loans in the control period.

3.7.2 There is no new capex for NUHEP in the control period and hence no new loan additions have been shown. The details of the loan statement for actuals FY 2018-19, FY 2019-20, estimated FY 2020-21 and projected FY 2021-22, FY 2022-23 and FY 2023-24 along with the interest accrued component for NUHEP is given in **Format 7**, **Annexure C.**

3.7.3 Justifications for existing loan of NUHEP project is given below:
a. **Existing PFC NUHEP Loan**: This loan shown for NUHEP in FY 2018-19 and FY 2019-20 pertain to the loans spent on the capex work (Format 7 of Annexure C). These loans have interest obligations in the next control period as shown in the statements.

3.7.4 The summarized statement of Interest and Finance charges to be considered for the Control Period is shown in the table below:

Table 9: Interest and Finance Charges for NUHEP for the third Control Period

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening Balance	440.30	408.85	377.26	353.81	322.36	290.91
Addition During the Year	0.00	0.00	0.00	0.00	0.00	0.00
Repayment during the year	31.45	31.59	23.44	31.45	31.45	31.45
Closing Balance	408.85	377.26	353.81	322.36	290.91	259.46
Average Interest Rate	12.65%	12.65%	11.75%	11.75%	11.75%	11.75%
Interest Accrued (INR cr.)	**53.71**	**49.72**	**42.95**	**39.73**	**36.03**	**32.33**

MePGCL humbly prays before the Hon'ble Commission to kindly approve the Interest and Finance Charges for NUHEPas computed above.

3.8 Interest on Working Capital

As per Regulation 34.1 (iii) of the MYT Regulations, 2014, the components of working capital will be:

"34 Interest on Working Capital

34.1 Generation

(iii) In case of hydro power generating stations, working capital shall cover:

- *Operation and maintenance expenses for one (1) month;*
- *Maintenance spares at the rate of 15% of O & M expenses escalated at 6% from the date of commercial operation; and*
- *Receivables equivalent to two (2) month of fixed cost:*

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations."

3.8.1 Based on the above, the Interest on Working Capital can be computed as follows:

Table 10: Interest and Finance Charges for NUHEP for the third Control Period

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
O&M for 1 Months	1.02	1.08	1.45	1.54	1.62	1.72
Maintenance Spares	1.84	1.95	2.61	2.76	2.92	3.09

Receivables for 2 Months	20.60	20.06	19.80	19.43	18.98	18.55
Total (INR Crore)	23.46	23.09	23.87	23.73	23.53	23.36
Interest Rate (%)	13.45%	13.20%	12.15%	12.15%	12.15%	12.15%
Interest on Working Capital (INR Crore)	**3.16**	**3.05**	**2.90**	**2.88**	**2.86**	**2.84**

MePGCL humbly prays before the Hon'ble Commission to kindly approve the Interest on Working Capital for NUHEPas computed above and as per the norms in the MYT Regulations.

3.9 Non-Tariff Income

3.9.1 As per Regulation 60 of the MYT Regulations, 2014 the **Other Income** of a generation utility is to be deducted from the total expenses to arrive at the net ARR. The relevant regulation is reproduced below for ready reference:

*"**60 Other income***

60.1 All Income other than income from sale of energy and net U I charges gained (after introduction of intra-state ABT) shall be grouped as other income. UI penalties shall not be netted off from other income. The UI penalties shall be borne by the generating company."

3.9.2 The details of Non-Tariff Income are shown in the table below:

Table 11: Non-Tariff Income of NUHEPforthe Third Control Period

Particular	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Non-Tariff Income	0.112	0.002	0.059	0.060	0.062	0.064

MePGCL humbly prays before the Hon'ble Commission to kindly approve the Non-Tariff Income forNUHEP as per the above computations.

3.10 Annual Revenue Requirement (ARR) for each year of the Control Period

3.10.1 Based on the above submissions, the ARR for each year of the Control Period would be as shown in the following table:

Table 12: ARR Requirement for NUHEP for the Third Control Period

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Interest on Loan capital	53.71	49.72	42.95	39.73	36.03	32.33
Depreciation	29.28	29.29	30.22	30.22	30.22	30.22
O&M Expenses	12.28	12.98	17.43	18.43	19.48	20.59
Interest on working capital	3.16	3.05	2.90	2.88	2.86	2.84
Return on Equity	25.26	25.33	25.37	25.37	25.37	25.37

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Total Annual Fixed Cost	**123.68**	**120.37**	118.88	116.63	113.97	111.36
Less: Non-Tariff Income	0.112	0.002	0.059	0.060	0.062	0.064
Net Annual Fixed Cost	**123.57**	**120.37**	**118.82**	**116.57**	**113.90**	**111.30**

4 Determination of Capacity Charge and Energy Charge for NUHEPfor FY 2021-22

4.1 Regulatory Provisions

MePGCL submits that based on the Annual fixed Cost approved by Hon'ble Commission it will calculate the capacity charge and energy charge for NUHEP, based on following provisions of the MYT Regulations, 2014:

"57 Computation and payment of capacity charge and energy charge for Hydro generating stations.

57.1 Capacity Charges:

(1) The fixed cost of a hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge, which shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the home State:

Provided that during the period between the date of commercial operation of the first unit of the generating station and the date of commercial operation of the generating station, the annual fixed cost shall provisionally be worked out based on the latest estimate of the completion cost for the generating station, for the purpose of determining the capacity charge and energy charge payment during such period.

(2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be

= AFC x 0.5 x NDM / NDY x (PAFM / NAPAF) (in Rupees)

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF= Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percentage

(3) The PAFM shall be computed in accordance with the following formula:

PAFM =10000 x Σ DCi / { N x IC x (100 - AUX) } %

i=1

Where,

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the ith day of the Month which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station

N = Number of days in the month

57.2 Energy Charges:

(1) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex power

plant basis, at the computed energy charge rate. Total Energy charge payable to the generating company for a month shall be:

= (Energy charge rate in Rs. / kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 – FEHS) / 100.

(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the provisions of clause (4):

ECR = AFC x 0.5 x 10 / { DE x (100 – AUX) x (100 – FEHS)}

Where,

DE = Annual design energy specified for the hydro generating station, In MWh, subject to the provision in clause (6) below.

FEHS = Free energy for home State as fixed from time to time, by competent authority.

(3) In case actual total energy generated by a hydro generating station during a year is less than the design energy for reasons beyond the control of the generating company, the following treatment shall be applied on a rolling basis:

(i) in case the energy shortfall occurs within ten years from the date of commercial operation of a generating station, the ECR for the year following the year of energy shortfall shall be computed based on the formula specified in clause (2) with the modification that the DE for the year shall be considered as equal to the actual energy generated during the year of the shortfall, till the energy charge shortfall of the previous year has been made up, after which normal ECR shall be applicable;

(ii) in case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply:

Suppose the specified annual design energy for the station is DE MWh, and the actual energy generated during the concerned (first) and the following (second) financial years is A1 and A2 MWh respectively, A1 being less than DE. Then, the design energy to be considered in the formula in clause (5) of this Regulation for calculating the ECR for the third financial year shall be moderated as (A1 + A2 – DE) MWh, subject to a maximum of DE MWh and a minimum of A1 MWh.

(iii) Actual energy generated (e.g. A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by 100 / (100 – AUX).

(4) In case the energy charge rate (ECR) for a hydro generating station, as computed in clause (5) above, exceeds eighty paise per kWh, and the actual saleable energy in a

year exceeds { DE x (100 – AUX) x (100 – FEHS) / 10000} MWh, the Energy charge for the energy in excess of the above shall be billed at eighty paise per kWh only:

Provided that in a year following a year in which total energy generated was less than the design energy for reasons beyond the control of the generating company, the energy charge rate shall be reduced to eighty paise per kWh after the energy charge shortfall of the previous year has been made up.

(6) The concerned Load Despatch Centre shall finalise the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station."

4.2 Total Gap to be recovered through Tariff in FY 2020-21

4.2.1 It may be noted that the ARR as well as the surplus as per the true up order for FY 2017-18 is to be cumulatively recovered through the tariff of FY 2021-22.

(Please Note: MePGCL is filing a review against true up FY 2017-18 order. As and when the order is notified, MePGCL requests the Hon'ble Commission to include the impact of that in the corresponding tariff petition for that year)

4.2.2 MePGCLalso had filed a review petition against the true up order of FY 2016-17through its letter No.MePGCL/D/GEN/MISC-43/2008/Pt-XIII/76 dated 17th January, 2020, but the order is still due from the Hon'ble Commission. Hence, due to absence of order, the gap due to review of true up order FY 2016-17 is not included here and may be added as and when the order is notified during the period of consideration of this petition.

4.3 Capacity Charge and Energy Charge of NUHEP

Following the same approach followed in the previous MYT tariff orders, MePGCL proposes to recover the annual fixed charges for NUHEP as energy charge and capacity charge in FY 2021-22. Further, MePGCL in this MYT petition requests Hon'ble commission to allow the recovery of the revenue gap it has claimed in the review petition for true up of FY 2017-18.The net revenue for NUHEP including gap of previous year to be passed on for FY 2021-22, is summarized below:

Table 13: Annual Fixed Charge for NUHEP for FY 2021-22

Particulars	FY 2021-22
Annual Fixed Cost (AFC) Proposed for FY 2021-22 (a)	116.57
Revenue Gap from True Up of FY 2017-18 (INR Crs) as approved by Hon'ble Commission in the True Up order for FY 2017-18 (b)	(114.47)
Revenue Gap from True Up of FY 2017-18 (INR Crs) for NUHEP* (c=b*40 MW / 343.5 MW)	(13.33)
Net AFC for computation of Tariff for FY 2021-22 (d=a+c)	**103.24**

*- The Hon'ble Commission in its order for True up of FY 2017-18, has allowed a surplus of INR 114.47 Cr. The claim for revenue surplus of MePGCLfor NUHEP has been apportioned, based on its installed capacity.

Total installed capacity available for receovery of true up gap of FY 2017-18 in FY 2021-22 is 343.5 MW (excluding Umtru which is not scheduled to generate in FY 2021-22 and Lakroh which came into operation in FY 2018-19)

Negative Gap implies Revenue Surplus.

The total installed capacity of the NUHEP is 40 MW, and gross generation approved in the Business Plan Order dated 30.09.2020 is 235MUs.MePGCL proposes to recover the total annual fixed charge from the beneficiary in the Financial Year 2021-22 on the basis of their capacity charge and target energy as computed below:-

Table 14: Computation of Tariff for NUHEP for FY 2021-22

Particulars	FY 2021-22
Net AFC for Computation of Tariff (INR Cr)	**103.24**
Gross Generation (MU) as approved in Business Plan	235.00
Less: Auxiliary Consumption @ 1%	2.35

Particulars	FY 2021-22
Less: Transformation Loss @ 0.5%	1.18
Net Energy (MU)	231.48
Fixed Charge (Rs. Cr.)	51.62
Variable Charge (INR/kWh)	2.23

Based on all above submissions, the petitioner humbly prays before the Hon'ble Commission to kindly approve the tariff for NUHEP for FY 2021-22 as computed in the above table

4.4 Prayer before the Hon'ble Commission

4.4.1 MePGCL humbly prays before the Hon'ble Commission to kindly approve the proposed tariff rates for implementation from 01.04.2021 based on the facts and circumstances submitted above.