BEFORE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION SHILLONG

FOR
TRUE UP OF GENERATION BUSINESS
FOR FY 2022-23,
AGGREGATE REVENUE REQUIREMENT FOR
FY 2024-25 TO FY 2026-27 &
DETERMINATION OF GENERATION TARIFF
FOR FY 2024-25

FILED BY



MEGHALAYA POWER GENERATION CORPORATION LTD. Lum Jingshai, Short Round Road, Shillong-793001

BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

FILE/ PETITION NO.....

IN THE MATTER OF

APPROVAL OF TRUING UP OF EXPENSES FOR FY 2022-23 AND APPROVAL OF MULTI YEAR ARR FOR THE CONTROL PERIOD FY 2024-25 TO FY 2026-27 AND GENERATION TARIFF FOR FY 2024-25 OF THE MEGHALAYA POWER GENERATION CORPORATION LIMITED (MePGCL) UNDER SECTION 62 AND 64 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003 AND PROVISIONS OF MSERC (MULTI YEAR TARIFF) REGULATIONS,2014

AND IN THE MATTER OF

MEGHALATA POWER GENERATION CORPORATION LIMITED, LUMJINGSHAI, SHILLONG- 793001- MEGHALAYA.

..... PETITIONER

IT IS RESPECT SUBMITTED BY THE PETITIONER THAT:

- 1. In exercising the powers conferred to it under Section 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010", notified on 31st March 2010. The Scheme paved path for the restructuring and unbundling of the erstwhile Meghalaya State Electricity Board (MeSEB). As per the provisions of the aforesaid transfer scheme MeSEB was un-bundled into four entities which are:
 - a) Meghalaya Energy Corporation Limited (MeECL) which is the holding company;
 - b) Meghalaya Power Distribution Corporation Limited (MePDCL) Distribution Utility;
 - c) Meghalaya Power Generation Corporation Limited (MePGCL)- Generation Utility;
 - d) Meghalaya Power Transmission Corporation Limited (MePTCL) Transmission Utility.
- 2. Though the transfer scheme was notified on 31st March 2010, the holding company MeECL continued to carry out the functions of distribution, generation and transmission utilities till 31st March 2012. After notification of amendment to the Power Sector Reforms Transfer Scheme by the State Government on 1st April 2012, the un-bundling of MeECL into MePDCL, MEPGCL and MePTCL came into effect.
- 3. The Government of Meghalaya notified the vesting order of the Assets and Liabilities as on 1st April 2010, in the books of MeECL. Subsequently, the State Government notified the 4th amendment to the Notified Transfer Scheme on29th April 2015, wherein the opening balances of assets and liabilities of all the four entities namely, MePDCL, MePGCL, MePTCL and MeECL as on 1st April 2012 were ascertained.

- 4. The instant Petition is being filed by MePGCL in compliance with the Regulation 11 Regulation 4 & 6 of Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulation, 2014 as amended from time to time for Trueing Up of Expenses for FY 2022-23 and Approval of Multi Year ARR for FY 2024-25 to FY 2026-27.
- 5. The Board of Directors of MePGCL have accorded the approval for filing the instant Petition and authorized the undersigned to file the Petition. The copy of the Board's resolution dated 28/11/2023 is annexed to this Petition as Annexure A.
- 6. The audited statement of accounts of MePGCL and MeECL are annexed to this Petition as Annexure B and C.
- 7. The Petitioner, therefore humbly prays Hon'ble Commission to:
 - a. To approve the true up of expenses for FY 2022-23 and the principles and methodology adopted by MePGCL for various parameters.
 - b. To approve the Multi Year ARR for the fourth control period i.e., FY 2024-25 to FY 2026-27 and generation tariff for FY 2024-25.
 - c. Approve the recovery of Accrued Terminal Liabilities in 15 equal installments.
 - d. Allow addition/ modification of the Petition during the course of the proceedings of the Petition.
 - e. To condone any inadvertent omissions, errors and shortcomings and permit the rectification of the same during the course of proceedings of the Petition.
 - f. To pass such order, as the Hon'ble Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.

(SMTI. M. LYNGDOH)
SUPERINTENDING ENGINEER (P&RM)

For and behalf of Meghalaya Power Generation Corporation Limited

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1. BACKGROUND

1.1 Description of Parties

The Power Supply Industry in the state of Meghalaya has been under the governance of erstwhile Meghalaya State Electricity board (MeSEB) since 21st January 1975. The State Government on 31st March, 2010 notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010" paving path for the un-bundling of the MeSEB into

- Meghalaya Electricity Corporation Limited (the holding company),
- Meghalaya Power Distribution Corporation Limited (Distribution Utility),
- Meghalaya Power Generation Corporation Limited (Generation Utility)
- Meghalaya Power Transmission Corporation Limited (Transmission Utility).

The aforesaid scheme was further amended on 31st March, 2012, which led to the transfer of assets and liabilities including all rights and obligation and contingencies with effect from 1st April, 2012 to the aforementioned four companies.

The MSERC is an independent statutory body constituted under the provisions of the Electricity Regulatory Commissions (ERC) Act, 1998, which was superseded by 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.

2. METHODOLOGY ADOPTED FOR TRUE UP PETITION FOR FY 2022-23

MePGCL would like to submit that the true up Petition for FY 2022-23 is being filed as per the provisions of the Regulation 11 of the MSERC (Multi Year Tariff) Regulations, 2014 (herein referred as 2014 Tariff Regulations). As per the Regulation 11.5 of 2014 Tariff Regulations:

The Scope of the truing up shall be a comparison of the performance of the Generating Company or Transmission Licensee or Distribution Licensee with the approved forecast of the Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of:

- a) A comparison of the **audited performance** of the applicant for the previous financial year with the approved forecast for such financial year, subject to the prudence check including pass-through of impact of uncontrollable factors.
- b) Review of the compliance with the directives issued by the Commission from time to time:
- c)Other relevant details.

As evident from the above extract of the Regulations, MePGCL has relied on the audited accounts of the FY 2022-23 for claiming most of the components of Aggregate Revenue Requirement. The detailed assumptions and methodology adopted by MePGCL for various components of the ARR are discussed in detail in the subsequent sections of this chapter.

2.1 GROSS FIXED ASSETS-

The Opening Gross Fixed Assets have been considered as the closing GFA claimed in the true up Petition for the FY 2021-22. The subsequent addition and deletion during the year have been considered as per the audited statement of accounts.

2.2 TREATMENT OF GRANTS AND CONSUMER CONTRIBUTION

MePGCL would like to submit that the accounting of the grants in the Audited Accounts is governed by the India Accounting Standard (Ind AS 20). The Indian Accounting Standard 20 specifies that:

"A government grant is not recognised until there is reasonable assurance that the entity will comply with the conditions attaching to it, and that the

grant will be received. Receipt of a grant does not of itself provide conclusive evidence that the conditions attaching to the grant have been or will be fulfilled."

The above extract of the Indian Accounting Standard 20 clearly states that MePGCL has to account for the grants received even if the asset against the grant is not capitalized. Hence, MePGCL would humbly submit that the consideration of entire grants in the statement of accounts against the Gross Fixed Assets would not be a correct methodology. Further the basic accounting equation that implies that the assets are equal to liabilities can be fulfilled only when Hon'ble Commission considers the GFA and CWIP on the asset side and the Grants, Equity and loans borrowed on the liability side.

The grants in the books of accounts are amortized annually as per the provisions of the relevant Accounting Standards. The amortization has been considered by Hon'ble Commission as Non-Tariff Income in the previous years.

Accordingly, the grants in the books of account as on 01.04.2022 and 31.03.2023 have been considered for further calculations.

These grants are proportioned into the GFA and CWIP as per the methodology adopted for other two companies.

Further, the grants approved by the Hon'ble Commission in the Capital Cost Orders for NUHEP and Lakroh Project have been considered on proportionate basis in the opening Grants.

The calculation of the grants has been presented in the excel model for each project.

Further, it is pertinent to mention that Hon'ble Commission in its own Regulations i.e., 2014 Tariff Regulations has in Regulation 32.2 mentioned that:

"The interest and finance charges attributable to capital work in progress shall be excluded."

In view of the above justifications MePGCL has proposed a similar methodology for apportionment of the grants in Capital Works in Progress and GFA.

MePGCL humbly prays this Hon'ble Commission to accept the methodology adopted by MePGCL and allow the consequential impact on the key ARR elements such as ROE, IOL and Depreciation.

2.3 DEPRECIATION AND RETURN ON EQUITY

MePGCL would like to submit that it has calculated depreciation and return on equity as per the 2014 Tariff Regulations, with a deviation from the methodology adopted by the Hon'ble Commission in previous years. In the instant Petition MePGCL has considered the bifurcation of grants in the capital work in progress and the gross fixed assets in light of the detailed explanation given under Point 3 above.

MePGCL prays this Hon'ble Commission to consider the methodology adopted by it for calculation of depreciation and return on equity and allow the same.

2.4 INTEREST ON LOAN

MePGCL has claimed the interest on loan as per the provisions of 2014 Tariff Regulations. As per Regulation 32 of the 2014 Tariff Regulations:

32.1 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 lending rate specified therein.

Provided that the outstanding loan capital shall be adjusted to make it consistent with the loan amount determined in accordance with Regulation 27.

Further Regulation 27 of the 2014 Tariff Regulations states that:

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.

In view of the above Regulations, since the Hon'ble Commission has restricted the equity to 30% of the GFA, MePGCL has considered the normative loan (70% of the GFA less grants in GFA and equity in GFA) as opening balance for the purpose of calculating the interest on loan. Further, since Hon'ble Commission has been considering the actual repayment of loan in the previous years, the total repayment made till date has been considered as cumulative repayment for arriving at net normative loan. The addition in the normative loan has been considered in proportion to the capitalization during the year and the repayment has been considered at actuals.

The interest booked in the statement of account against each of the actual loan has been considered for the purpose of arriving at the weighted average rate of interest. This weighted average rate of interest has been used for calculating the interest on loan by multiplying it with the average normative loan.

The other financing charges such as guarantee fees have been claimed as per actuals in the audited statement of account.

2.5 OPERATION AND MAINTENANCE EXPENSES

In line with the settled regulatory practice followed by Hon'ble Commission in previous years, the operation and maintenance expenses have been claimed as per the audited statement of account for old projects and on normative basis for MLHEP, NUHEP and Lakroh for which O&M expenses have been claimed on normative basis i.e., by considering escalation of 5.72% over the approved O&M expenses for FY 2021-22 in the true up order. It is pertinent to note that the O&M expenses of common shared services are booked in the accounts of the holding company i.e., MeECL, hence the O&M expenses booked in the accounts of MeECL have been apportioned equally among the three companies.

Further, in line with the directions of Hon'ble Commission in previous years, the actuarial valuation for the FY 2021-22 and FY 2022-23 has been done and the Terminal Benefits accounted for in the audited statement of account has been claimed accordingly under the old plants.

2.6 NON-TARIFF INCOME

The Non-Tariff Income has been considered as per the audited statement of account with following exclusions:

i. Amortization of grants shown in the audited accounts in non-tariff income has been excluded from the claim as the entire movement in grants has been considered at the time of calculation of return on equity and depreciation. Since the amortization of grants is not an actual income and has been accounted in the statement of accounts for the purpose of the complying with the relevant accounting standards issued by ICAI hence the same is not in the nature of revenue.

3. TRUING UP OF EXPENSES OF FY 2022-23

3.1 BACKGROUND

Hon'ble Commission vide order dated 25.03.2021 in Case No. 02 of 2021 has allowed the Multi Year ARR for MePGCL including the ARR of FY 2022-23. The ARR for the year was further revised vide order dated 25.03.2022 in Case no. 27 of 2021- Aggregate Revenue Requirement for FY 2022-23.

Since, the Annual Statement of Accounts for FY 2022-23 have been audited and hence in terms of the provisions of Regulation 11 of the 2014 Tariff Regulations, MePGCL is filing the true up Petition for FY 2022-23.

3.2 REGULATORY PROVISION FOR FILING OF TRUE UP PETITION

The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 on 15thSeptember 2014 which is applicable for determination of tariff effective from 1 April 2015. Regulation 11 of the said Regulations lays down the general guiding principles for truing up and the provisions of the said Regulations are reproduced below for reference:

"11. Truing-Up

- 11.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, then such Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.
- **11.2** The Generating Company or Transmission Licensee or Distribution Licensee shall file an Application for Truing up of the previous year and determination of tariff for the ensuing year, within the time limit specified in these Regulations:
- 11.3 Provided that the Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed

by the Commission, together with the Audited Accounts including audit report by CA&G, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.

It is further stated that the amendment to Regulation 11.3 of the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 dated 15th June 2021 is *as follows:*

"Provided that the Generating Company or Transmission Licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts including audit report by a Statutory Auditor appointed by C&AG, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges."

- **11.4** Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts applications for tariff determination and truing up shall be based on the Regulatory Accounts.
- 11.5 The scope of the truing up shall be a comparison of the performance of the Generating Company or Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:
- a) a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year, subject to the prudence check including pass-through of impact of uncontrollable factors;
- **b**) Review of compliance with directives issued by the Commission from time to time;
- c) Other relevant details, if any.
- 11.6 In respect of the expenses incurred by the Generating Company, Transmission Licensee and Distribution Licensee during the year for controllable and uncontrollable parameters, the Commission shall carry out a detailed review of performance of an applicant vis-a-vis the approved forecast as part of the truing up.
- 11.7 Upon completion of the truing up under Regulation 11.4 above, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12 below, to factors within the control of the applicant (controllable factors) or to factors beyond the control of the applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12.1 below shall be attributed entirely to controllable factors.

- **11.8** Upon completion of the Truing Up, the Commission shall pass an order recording:
- a) the approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations;

As per the prevalent practice MePGCL is filing combined Petition for true up with chapter wise breakup of true of individual plants.

3.3 INSTALLED CAPACITY

MePGCL is the state owned power generating company of the state of Meghalaya with an installed capacity of 378.20 MW as on date. All of the generating station of MePGCL are Hydro generating stations.

The Installed Capacity of MePGCL is shown as under:

Table 1 Installed Capacity of MePGCL as on 01.04.2022

SI. No.	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
1	Umiam Stage I	I	9	36	21.02.1965
		- 11	9		16.03.1965
		111	9		06.09.1965
		IV	9		09.11.1965
2	Umiam Stage II	I	10	20	22.07.1970
		П	10		24.07.1970
3	Umiam-Umtru Stage III	1	30	60	6.01.1979
		П	30		30.03.1979
4	Umiam-Umtru Stage IV	I	30	60	16.09.1992
		П	30		11.08.1992
5	Umtru Power Station	I	2.8	11.2	01.04.1957
		П	2.8		01.04.1957
		111	2.8		01.04.1957
		IV	2.8		12.07.1968

SI. No.	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
6	Sonapani Mini Hydel	I	1.5	1.5	27.10.2009
7	MLHEP (Leshka)	1	42	126	01.04.2012
		П	42		01.04.2012
		Ш	42		01.04.2013
8	NUHEP (New Umtru)	I	20	40	01.07.2017
		П	20		01.07.2017
9	Lakroh MHP	I	1.5	1.5	01.03.2019
	Total			356.2	

Upcoming Plants

The Ganol Small Hydro Project 22.5 MW has already been Commissioned in 2023-24 and there is another upcoming hydro project of the utility which is scheduled to be commissioned in the near future. The details of the plant are given below:

Table2: Details of Upcoming Plants

SI No	Name of the Plant	Design Energy (MU)	Capex Outlay (INR. Crs)	Debt (INR Crs)	Equity (INR Crs)	Grant (INR Crs)	Year of Commissioning
1	Riangdo SH Project (3 MW)	17.92	39.97	11.4	8.57	20	2025-26 (tentative date)

3.4 <u>PERFORMANCE HIGHLIGHTS</u>

1. Energy Generation

All the Generating stations being hydro, the annual generation is heavily dependent on the rainfall during the year. The generation trend from FY 2019-20 to FY 2022-23 has been presented in the table below:

Table 3: Energy Generation Trend of MePGCL (MU)

SI. No	Station	FY 2019- 20	FY 2020- 21	FY 2021- 22	FY 2022- 23
1	Umiam Stage-I	108.32	149.49	64.92	117.67
2	Umiam Stage-II	55.25	76.09	33.9	62.11
3	Umiam-Umtru Stage-III	141.83	163.71	110.19	129.57
4	Umiam-Umtru Stage-IV	164.5	188.32	125.26	176.00
5	Sonapani MHP	3.59	6.08	5.55	6.47
6	MyntduLeshka HEP	421.65	420.61	380.34	359.69
7	New Umtru HEP	181.43	229.80	160.79	196.24
8	Lakroh MHP	2.11	3.69	4.04	3.43
Total		1078.68	1237.81	884.99	1051.19

2. Auxiliary Consumption

The actual auxiliary consumption from FY 2019-20 to FY 2022-23 for the generating stations of MePGCL is shown in the table below:

Table 4: Auxiliary Consumption (MUs)

SI. No	Station	FY 2019- 20	FY 2020- 21	FY 2021- 22	FY 2022- 23
1	Umiam Stage-I	1.01	0.96	0.55	0.738
2	Umiam Stage-II	0.335	0.42	0.199	0.348
3	Umiam Stage-III	0.863	0.92	0.63	0.727
4	Umiam Stage-IV	1.12	1.18	0.846	1.23
5	Sonapani MHP	0.032	0.06	0.054	0.058
6	Leshka HEP	3.67	3.50	3.63	3.13
7	New Umtru HEP	1.3	1.48	1.11	1.35
8	Lakroh MHP	0.029	0.048	0.04	0.027
	TOTAL	8.356	8.568	7.059	7.608

3. Plant Availability Factor

The Plant Availability Factor of the generating stations for past three years is tabulated below:

Table 5 Actual Plant Availability Factor of MePGCL Generating Stations

SI. No	POWER STATION	2020-21	2021-22	2022-23
1	Stage-I Power Station, Sumer	95.08	75.94	96.04
2	Stage II Power Station, Umsumer	98.14	98.5	98.33

SI. No	POWER STATION	2020-21	2021-22	2022-23
3	Stage III Power Station, Kyrdemkulai	80.45	83.1	82.6
4	Stage IV Power Station, Nongkhyllem	49.14	48.44	63.68
5	Umtru Power Station, Byrnihat	0.00	0.00	0.00
6	Sonapani Mini Power Station	98.19	92.37	98.51
7	Myntdu Leshka Power Station.	90.87	87.68	59.36
8	New Umtru Power station, Byrnihat	99.54	91.08	90.46
9	Lakroh Power Station	80.80	60.03	77.69

4. COMPUTATION OF COMPONENTS OF AGGREGATE REVENUE REQUIREMENT FOR FY 2022-23

In accordance with 2014 Tariff Regulations, the ARR of the hydro generating project shall comprise of following:

- "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."

The detailed methodology of Computation of individual component has been detailed out in Chapter 2.

The calculation of the individual components of ARR for following projects is discussed in subsequent chapters:

1. Myntdu-Leshka HEP.

- 2. New Umtru HEP
- 3. Lakroh MHP
- 4. Old plants (including Sonapani)

5. TRUE UP AGGREGATE REVENUE REQUIREMENT FOR MYNTDU LESHKA HEP

5.1 GROSS FIXED ASSETS (GFA)

MePGCL in compliance to directives of the Hon'ble Commission in previous true up orders has submitted the fixed asset register of all the plants and has claimed the opening and closing GFA accordingly in the true up of ARR of FY 2021-22.

Accordingly, the closing GFA of FY 2021-22 has been considered as opening GFA for 2022-23. The addition and deletion during the year has been considered as per the statement of accounts. The GFA for MLHEP for FY 2022-23 is tabulated below:

Table 6 Opening and Closing GFA for MLHEP for FY 2022-23

Particular	Opening GFA	Addition	Deletion	Closing GFA
Land	23.9	0	0	23.9
Buildings	146.67	0	0	146.67
Hydraulic Works	622.91	0	0	622.91
Other Civil Works	122.62	0	0	122.62
Plant & Machinery	364.11	0	0	364.11
Lines & cables	4.57	0	0	4.57
Vehicles	0.46	0	0	0.46
Furniture	0.08	0	0	0.08
Office Equipment	0.18	0	0	0.18
Total	1285.50	0.00	0.00	1285.50

MePGCL humbly prays the Hon'ble Commission to approve the GFA for MLHEP as above.

5.2 <u>DEPRECIATION</u>

MePGCL would like to submit that it has calculated the depreciation as per the methodology outlined in the 2014 Tariff Regulations. Further since there is no grant in the funding pattern of MLHEP as approved by Hon'ble Commission in the Capital Cost Order for MLHEP no deduction of depreciation on account of grants has been considered. The calculation of depreciation for MLHEP is tabulated below:

Table 7 Calculation of Depreciation for MLHEP for FY 2022-23

Particular	Opening GFA	Addition	Deletion	Closing GFA	Average GFA	Rate of Depreciation	Depreciation
Land	23.90	0.00	0.00	23.90	23.90	0.00%	0.00
Buildings	146.67	0.00	0.00	146.67	146.67	3.34%	4.90
Hydraulic Works	622.91	0.00	0.00	622.91	622.91	5.28%	32.89
Other Civil Works	122.62	0.00	0.00	122.62	122.62	3.34%	4.10
Plant & Machinery	364.11	0.00	0.00	364.11	364.11	5.28%	19.23
Lines & cables	4.57	0.00	0.00	4.57	4.57	5.28%	0.24
Vehicles	0.46	0.00	0.00	0.46	0.46	9.50%	0.04
Furniture	0.08	0.00	0.00	0.08	0.08	6.33%	0.01
Office Equipment	0.18	0.00	0.00	0.18	0.18	6.33%	0.01
Total	1285.50	0.00	0.00	1285.50	1285.50		61.41

MePGCL humbly prays the Hon'ble Commission to approve the depreciation for MLHEP for FY 2022-23 as Rs. 61.41 Cr.

5.3 <u>RETURN ON EQUITY</u>

MePGCL would like to submit that the opening equity has been considered 30% of the GFA in accordance with the Regulation 27 of the 2014 Tariff Regulations. The rate of return on equity as been considered as 14% in accordance with the provisions of 2014 Tariff Regulations. The calculation of Return on Equity for MLHEP is tabulated below:

Table 8 Calculation of Return on Equity for MLHEP for FY 2022-23

Particular	Amount (Rs Cr.)
Opening Equity	385.65
Equity Addition	0.00
Closing Equity	385.65
Average Equity	385.65
Rate of Return on	
Equity	14%
Return on Equity	53.99

MePGCL humbly prays the Hon'ble Commission to approve the return on equity for MLHEP as Rs. 53.99 Cr for FY 2022-23

5.4 <u>INTEREST ON LOAN</u>

Interest on loan has been computed as per the provisions of Regulations 27 and Regulation 32 of the 2014 Tariff Regulations and methodology detailed out in Chapter 2. The weighted average rate of interest has been computed on the actual loans running as tabulated below:

Table 9 Calculation of weighted Average Rate of Interest for MLHEP

S No	Name of Loan	Opening Balance	Drawal	Repayment	Closing Loan	Average Loan	Interest as Per SOA	ROI
1	PFC Loan for	124.00	0.00	20.12	104.04	114.00	12.00	11.21%
2	MLHEP PFC 170 Cr. Refinancing of Bonds	124.99 143.02	0.00	20.13	104.86	114.92 132.84	12.88	9.92%
3	REC Loan for MLHEP	127.98	0.00	25.30	102.67	115.33	10.69	9.27%
4	REC Ioan 60 Crs. (MLHEP)	42.00	0.00	8.28	33.73	37.86	3.86	10.19%
		437.99	0.00	74.07	363.91	400.95	40.62	

MePGCL would like to submit that Hon'ble Commission has not been considering the PFC loan taken for redemption of bonds and REC loan of Rs. 60 Cr as project

loans in the previous true ups. In this regards MePGCL would like to reiterate its submissions in the previous true up Petitions that these loans were availed by MePGCL for the repayment of the bonds which were part of the project financing approved by the Hon'ble Commission. Hence, any loans taken for the payment of the loans part of the funding pattern of the project are not new loans and should be considered as refinancing of existing loans. MePGCL has also submitted the Guidelines issued by Reserve Bank of India dated 02nd June 2016 for Refinancing of project loans.

As per guidelines of RBI, Re-financing of loan was availed from PFC to redeem the bonds. In the recent True up Order the Hon'ble Commission has not considered for refinancing of loan. Therefore, refinancing of loan is required to be admitted by the Hon'ble Commission so that repayment of loan can be taken up by the utility.

As of now the repayment of these loans are done from the revenue generated by the plant as approved by the Hon'ble Commission, thus in a way the repayment is made out of the ROE component of the project which is impacting the financial viability of the project.

Accordingly, MePGCL humbly prays Hon'ble Commission to consider these loans as project loan and allow the interest on loan accordingly.

The calculation of the interest on loan is tabulated below:

Table 10 Calculation of Interest on Loan for MLHEP for FY 2022-23

Particular	Amount
Opening Loan	899.85
Cumulative Repayment	410.79
Net Normative	489.06
Addition	0.00
Repayment	74.07
Closing Loan	414.99
Average Loan	452.03
WAROI	10.13%
Interest on Loan	45.79
Financing Charges	0.00
Total IOL	45.79

MePGCL humbly prays the Hon'ble Commission to approve interest on loan as Rs.45.79 Cr. for FY 2022-23

5.5 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

Hon'ble Commission vide order dated 13.11.2023 in Case No. 04 of 2023 for truing up of expenses of FY 2021-22 has approved operation and maintenance expenses for MLHEP as Rs. 33.60 Cr. Accordingly, MePGCL is claiming operation and maintenance expenses for FY 2022-23 by applying an escalation of 5.72% over and above the approved O&M expenses for FY 2021-22.

However, MePGCL reserves the right to file review/ appeal against the aforesaid order and the claim of the O&M expenses is liable to change on the basis of outcome of such review/appeal.

The O&M expenses for FY 2022-23 is tabulated below:

Table 11 Operation and Maintenance Expenses for MLHEP for FY 2022-23

Particular	Amount (Rs. Cr.)
Operation and Maintenance Expenses	37.42

MePGCL prays Hon'ble Commission to approve the O&M Expenses for MLHEP for FY 2022-23 as Rs. 37.42 Cr.

5.6 <u>INTEREST ON WORKING CAPITAL</u>

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2022 comes out to be Rs. 12.30%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 12 Computation of Interest on Working Capital for MLHEP for FY 2022-23

S No	Particular	Amount (In Rs. Cr.)
1	O&M Expenses for 1 Month	3.12
2	Maintenance Spares	5.95
3	Receivables	33.99
	Total Working Capital	43.05
	Rate of Interest	12.30%
	Interest on Working Capital	5.30

MePGCL humbly prays the Hon'ble Commission to approve interest on working capital for FY 2022-23 for MLHEP as Rs. 5.30 Cr.

5.7 <u>REVENUE FROM SALE OF POWER</u>

The revenue from sale of power from MLHEP based on the ARR approved by Hon'ble Commission is worked out as Rs. 82.23 Cr.

MePGCL prays the Hon'ble Commission to approve the revenue as Rs. 82.23 Cr.

5.8 AGGREGATE REVENUE REQUIREMENT FOR MLHEP

Based on the computation of the individual components of ARR for MLHEP as detailed out in above paragraphs the ARR and Gap/(surplus) for MLHEP is tabulated below:

Table 13 Aggregate Revenue Requirement for MLHEP for FY 2022-23

		Amount
S No	Particular	(In Cr.)

1	Depreciation	61.41
2	Return on Equity	53.99
3	O&M Expenses	37.42
4	Interest and Finance Charges	45.79
5	Interest on Working Capital	5.30
6	SLDC Charges	0.00
7	Prior Period Expenses	0.00
	Total AFC	203.91
8	Less Non- Tariff Income	0.00
	Add Revenue Gap/Surplus of 2017-18	(-)3.6
	Add Revenue Gap/Surplus of 2018-19	(-)56.69
	Add Revenue Gap/Surplus of 2017-18	(-)68.79
	Net AFC	74.83
9	Revenue From Operation	82.23
	Revenue Gap/ (Surplus)	(-)7.40

MePGCL humbly requests the Hon'ble Commission to approve the ARR for MLHEP as Rs. 203.91 Cr for 2022-23 and Net ARR as Rs.74.83 Cr.

The detailed calculation of the individual components of ARR is being submitted in soft copy in form of excel model.

6. TRUE UP AGGREGATE REVENUE REQUIREMENT FOR NEW UMTRU HEP

6.1 GROSS FIXED ASSETS (GFA)

MePGCL in compliance to directives of the Hon'ble Commission in previous true up orders has submitted the fixed asset register of all the plants and has

claimed the opening and closing GFA accordingly in the true up of ARR of FY 2021-22.

Accordingly, the closing GFA of FY 2021-22 has been considered as opening GFA for 2022-23. The addition and deletion during the year has been considered as per the statement of accounts. The GFA for NUHEP for FY 2022-23 is tabulated below:

Table 14 Opening and Closing GFA for NUHEP for FY 2022-23

Particular	Opening GFA	Addition	Deletion	Closing GFA
Land	1.66	0.03	0.00	1.69
Buildings	95.16	0.00	0.00	95.16
Hydraulic Works	311.64	0.00	0.00	311.64
Other Civil Works	33.23	0.00	0.00	33.23
Plant & Machinery	159.93	0.00	0.00	159.93
Lines & cables	3.62	0.00	0.00	3.62
Vehicles	0.04	0.00	0.00	0.04
Furniture	0.07	0.00	0.00	0.07
Office Equipment	0.02	0.00	0.00	0.02
Total	605.37	0.03	0.00	605.40

MePGCL would like to submit that the Hon'ble Commission has been considering the GFA of NUHEP based on the capital cost of Rs. 584 Cr and subsequent addition and deletions. However, MePGCL would like to submit that the completed project cost of NUHEP project was Rs.604 Cr only and to substantiate its claim MePGCL is in the process of getting the auditor's certificate for movement of GFA of NUHEP and the same shall be submitted during the course of the proceeding of the Petition.

MePGCL humbly prays the Hon'ble Commission to approve the GFA for NUHEP as above.

6.2 GRANTS

MePGCL would like to submit that in the Capital Cost order for NUHEP project Hon'ble Commission has considered a grant of Rs. 128.37 Cr.

However, as appraised earlier the State Government has vide Notification No. POWER.44/2011/659, dated 26th November, 2021 converted grants and loans amounting to INR 132.00 crore into equity for NUHEP.

Accordingly, as on date there is no grants in the NUHEP Project

6.3 **DEPRECIATION**

MePGCL would like to submit that it has calculated the depreciation as per the methodology outlined in the 2014 Tariff Regulations. Further since there is no grant in the funding pattern of NUHEP as approved by Hon'ble Commission in the Capital Cost Order for NUHEP no deduction of depreciation on account of grants has been considered. The calculation of depreciation for NUHEP is tabulated below:

Table 15 Calculation of Depreciation for NUHEP for FY 2022-23

Particular	Opening GFA	Addition	Deletion	Closing GFA	Average GFA	Rate of Depreciation	Depreciation
Land	1.66	0.03	0.00	1.69	1.68	0.00%	0.00
Buildings	95.16	0.00	0.00	95.16	95.16	3.34%	3.18
Hydraulic Works	311.64	0.00	0.00	311.64	311.64	5.28%	16.45
Other Civil Works	33.23	0.00	0.00	33.23	33.23	3.34%	1.11
Plant & Machinery	159.93	0.00	0.00	159.93	159.93	5.28%	8.44
Lines & cables	3.62	0.00	0.00	3.62	3.62	5.28%	0.19
Vehicles	0.04	0.00	0.00	0.04	0.04	9.50%	0.00
Furniture	0.07	0.00	0.00	0.07	0.07	6.33%	0.00
Office Equipment	0.02	0.00	0.00	0.02	0.02	6.33%	0.00
Total	605.37	0.03	0.00	605.40	605.39		29.39

MePGCL humbly prays the Hon'ble Commission to approve the depreciation for NUHEP for FY 2022-23 as Rs. 29.39 Cr.

6.4 <u>RETURN ON EQUITY</u>

MePGCL would like to submit that the opening equity has been considered 30% of the GFA in accordance with the Regulation 27 of the 2014 Tariff Regulations. The rate of return on equity as been considered as 14% in accordance with the provisions of 2014 Tariff Regulations. The calculation of Return on Equity for NUHEP is tabulated below:

Table 16 Calculation of Return on Equity for NUHEP for FY 2022-23

Particular	Amount (Rs Cr.)
Opening Equity	181.61
Equity Addition	0.01
Closing Equity	181.62
Average Equity	181.62
Rate of Return on Equity	14%
Return on Equity	25.43

MePGCL humbly prays the Hon'ble Commission to approve the return on equity for NUHEP as Rs. 25.43 Cr for FY 2022-23

6.5 <u>INTEREST ON LOAN</u>

Interest on loan has been computed as per the provisions of Regulations 27 and Regulation 32 of the 2014 Tariff Regulations and methodology detailed out in Chapter 2. The weighted average rate of interest has been computed on the actual loans running as tabulated below:

Table 17 Calculation of weighted Average Rate of Interest for NUHEP

S No	Name of Loan	Opening Balance	Drawal	Repayment	Closing Loan	Average Loan	Interest as Per SOA	ROI
1	PFC Loan for NUHEP	352.17	0.00	39.31	312.86	332.52	37.60	11.31%

The calculation of the interest on loan is tabulated below:

Table 18 Calculation of Interest on Loan for NUHEP for FY 2022-23

Particular	Amount
Opening Loan	423.76
Cumulative Repayment	88.13
Net Normative	335.63
Addition	0.02
Repayment	39.31
Closing Loan	296.34
Average Loan	315.99
WAROI	11.31%
Interest on Loan	35.73
Financing Charges	0.00
Total IOL	35.73

MePGCL humbly prays the Hon'ble Commission to approve interest on loan as Rs.35.73 Cr. for FY 2022-23

6.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

Hon'ble Commission vide order dated 13.11.2023 in Case No. 04 of 2023 for truing up of expenses of FY 2021-22 has approved operation and maintenance expenses for NUHEP as Rs. 17.62 Cr. Accordingly, MePGCL is claiming operation and maintenance expenses for FY 2022-23 by applying an escalation of 5.72% over and above the approved O&M expenses for FY 2021-22.

However, MePGCL reserves the right to file review/ appeal against the aforesaid order and the claim of the O&M expenses is liable to change on the basis of outcome of such review/appeal.

The O&M expenses for FY 2022-23 is tabulated below:

Table 19 Operation and Maintenance Expenses for NUHEP for FY 2022-23

Particular	Amount (Rs. Cr.)
Operation and Maintenance Expenses	18.63

MePGCL prays Hon'ble Commission to approve the O&M Expenses for NUHEP for FY 2022-23 as Rs. 18.63 Cr.

6.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2022 comes out to be Rs. 12.30%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 20 Computation of Interest on Working Capital for NUHEP for FY 2022-23

S No	Particular	Amount (In Rs. Cr.)
1	O&M Expenses for 1 Month	1.55
2	Maintenance Spares	2.96
3	Receivables	18.67

S No	Particular	Amount (In Rs. Cr.)
	Total Working Capital	23.18
	Rate of Interest	12.30%
	Interest on Working Capital	2.85

MePGCL humbly prays the Hon'ble Commission to approve interest on working capital for FY 2022-23 for NUHEP as Rs. 2.85 Cr.

6.8 REVENUE FROM SALE OF POWER

The revenue from sale of power from NUHEP based on the ARR approved by Hon'ble Commission is worked out as Rs. 27.56 Cr.

MePGCL prays the Hon'ble Commission to approve the revenue as Rs. 27.56 Cr.

6.9 AGGREGATE REVENUE REQUIREMENT FOR NUHEP

Based on the computation of the individual components of ARR for NUHEP as detailed out in above paragraphs the ARR and Gap/(surplus) for NUHEP is tabulated below:

Table 21 Aggregate Revenue Requirement for NUHEP for FY 2022-23

S No	Particular	Amount (In Cr.)
1	Depreciation	29.39
2	Return on Equity	25.43
3	O&M Expenses	18.63
4	Interest and Finance Charges	35.73
5	Interest on Working Capital	2.85
6	SLDC Charges	0.00
7	Prior Period Expenses	0.00
	Total AFC	112.02
8	Less Non- Tariff Income	0.00
	Revenue Gap/ Surplus for 2017-18	0.00
	Revenue Gap/ Surplus for 2018-19	73.83
	Revenue Gap/ Surplus for 2019-20	73.17
	Net AFC	259.02
9	Revenue From Operation	27.56
	Revenue Gap/ (Surplus)	231.47

MePGCL humbly requests the Hon'ble Commission to approve the ARR for NUHEP as Rs. 112.02 Cr and Net ARR of 259.02 Cr.

The detailed calculation of the individual components of ARR is being submitted in soft copy in form of excel model.

7. TRUE UP AGGREGATE REVENUE REQUIREMENT FOR LAKROH SMALL HEP

7.1 GROSS FIXED ASSETS (GFA)

MePGCL in compliance to directives of the Hon'ble Commission in previous true up orders has submitted the fixed asset register of all the plants and has claimed the opening and closing GFA accordingly in the true up of ARR of FY 2021-22.

Accordingly, the closing GFA of FY 2021-22 has been considered as opening GFA for 2022-23. The addition and deletion during the year has been considered as per the statement of accounts. The GFA for Lakroh Small HEP for FY 2022-23 is tabulated below:

Table 22 Opening and Closing GFA for LAKROH SMALL HEP for FY 2022-23

		Opening			Closing
S No	Particular	GFA	Addition	Deletion	GFA
1	Land	0.00	0.00	0.00	0.00
2	Buildings	2.43	0.00	0.00	2.43
3	Hydraulic Works	9.68	0.05	0.00	9.73
4	Other Civil Works	2.43	0.00	0.00	2.43
5	Plant & Machinery	10.31	0.00	0.00	10.31
6	Lines & cables	1.57	0.00	0.00	1.57
7	Vehicles	0.00	0.00	0.00	0.00
8	Furniture	0.00	0.00	0.00	0.00
9	Office Equipment	0.00	0.00	0.00	0.00
	Total	26.42	0.05	0.00	26.47

MePGCL humbly prays the Hon'ble Commission to approve the GFA for Lakroh Small HEP as above.

7.2 GRANTS

MePGCL would like to submit that in the Capital Cost order for Lakroh Small HEP project Hon'ble Commission has considered a grant of Rs. 11.75 Cr.

As detailed out in Chapter 2 of this Petition the amortization of the grants has been considered as reduction from ARR as Non-Tariff Income in the previous year's accordingly only the grants in books of account as on date has been considered for calculation. Further, the grants have been bifurcated on proportionate basis in GFA and CWIP. Accordingly, the opening grant for Lakroh comes out to Rs. 4.95 Cr as on 2022-23.

Further, since there is a capital addition in 2022-23 but no further grant is received hence addition to grants has been considered as NIL.

7.3 <u>DEPRECIATION</u>

MePGCL would like to submit that it has calculated the depreciation as per the methodology outlined in the 2014 Tariff Regulations. Further since there is no addition in grant in the FY 2022-23 for Lakroh HEP the opening grant has been considered as the closing grant. The calculation of depreciation for LAKROH SMALL HEP is tabulated below:

Table 23 Calculation of Depreciation for LAKROH SMALL HEP for FY 2022-23

Particular	Openin g GFA	Additi on	Deletio n	Closin g GFA	Averag e GFA	Rate of Depreciat ion	Depreci ation
Land	0.00	0.00	0.00	0.00	0.00	0.00%	0.00
Buildings	2.43	0.00	0.00	2.43	2.43	3.34%	0.08
Hydraulic Works	9.68	0.00	0.00	9.68	9.68	5.28%	0.51
Other Civil Works	2.43	0.00	0.00	2.43	2.43	3.34%	0.08
Plant & Machinery	10.31	0.00	0.00	10.31	10.31	5.28%	0.54
Lines & cables	1.57	0.00	0.00	1.57	1.57	5.28%	0.08
Vehicles	0.00	0.00	0.00	0.00	0.00	9.50%	0.00
Furniture	0.00	0.00	0.00	0.00	0.00	6.33%	0.00
Office Equipment	0.00	0.00	0.00	0.00	0.00	6.33%	0.00
Total	26.42	0.00	0.00	26.42	26.42		1.30

WAROD	4.92%
Average Grants in GFA	4.95
Depreciation on Grants	0.24
Net Depreciation	1.06

MePGCL humbly prays the Hon'ble Commission to approve the depreciation for Lakroh Small HEP for FY 2022-23 as Rs. 1.06 Cr.

7.4 <u>RETURN ON EQUITY</u>

MePGCL would like to submit that the opening equity has been considered 30% of the GFA in accordance with the Regulation 27 of the 2014 Tariff Regulations. The rate of return on equity as been considered as 14% in accordance with the provisions of 2014 Tariff Regulations. The calculation of Return on Equity for Lakroh Small HEP is tabulated below:

Table 24 Calculation of Return on Equity for LAKROH SMALL HEP for FY 2022-23

Particular	Amount (Rs Cr.)
Opening Equity	6.44
Equity Addition	0.01
Closing Equity	6.46
Average Equity	6.45
Rate of Return on Equity	14%
Return on Equity	0.90

MePGCL humbly prays the Hon'ble Commission to approve the return on equity for Lakroh Small HEP as Rs. 0.90 Cr for FY 2022-23

7.5 INTEREST ON LOAN

Interest on loan has been computed as per the provisions of Regulations 27 and Regulation 32 of the 2014 Tariff Regulations and methodology detailed out in Chapter 2. The weighted average rate of interest has been computed on the actual loans running as tabulated below:

Table 25 Calculation of weighted Average Rate of Interest for LAKROH SMALL HEP

S No	Name of Loan	Opening Balance	Drawal	Repayment	Closing Loan	Average Loan	Interest as Per SOA	ROI
1	PFC Loan for Lakroh	5.76	0.00	0.50	5.27	5.51	0.56	10.18%

The calculation of the interest on loan is tabulated below:

Table 26 Calculation of Interest on Loan for LAKROH SMALL HEP for FY 2022-23

Particular	Amount
Opening Loan	15.03
Cumulative Repayment	0.32
Net Normative	14.71
Addition	0.03
Repayment	0.50
Closing Loan	14.25
Average Loan	14.48
WAROI	10.18%
Interest on Loan	1.47
Financing Charges	0.00
Total IOL	1.47

MePGCL humbly prays the Hon'ble Commission to approve interest on loan as Rs.1.47 Cr. for FY 2022-23

7.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

Hon'ble Commission vide order dated 13.11.2023 in Case No. 04 of 2023 for truing up of expenses of FY 2021-22 has approved operation and maintenance expenses for LAKROH SMALL HEP as Rs. 0.57 Cr. Accordingly, MePGCL is claiming operation and maintenance expenses for FY 2022-23 by applying an

escalation of 5.72% over and above the approved O&M expenses for FY 2021-22.

However, MePGCL reserves the right to file review/ appeal against the aforesaid order and the claim of the O&M expenses is liable to change on the basis of outcome of such review/appeal.

The O&M expenses for FY 2022-23 is tabulated below:

Table 27 Operation and Maintenance Expenses for Lakroh Small HEP for FY 2022-23

Particular	Amount (Rs. Cr.)
Operation and Maintenance Expenses	0.60

MePGCL prays Hon'ble Commission to approve the O&M Expenses for Lakroh Small HEP for FY 2022-23 as Rs. 0.60 Cr.

7.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2022 comes out to be Rs. 12.30%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 28 Computation of Interest on Working Capital for LAKROH SMALL HEP for FY 2022-23

		Amount
S No	Particular	(In Rs.

		Cr.)
1	O&M Expenses for 1 Month	0.05
2	Maintenance Spares	0.10
3	Receivables	0.10
	Total Working Capital	0.25
	Rate of Interest	12.30%
	Interest on Working Capital	0.03

MePGCL humbly prays the Hon'ble Commission to approve interest on working capital for FY 2022-23 for LAKROH SMALL HEP as Rs. 0.03 Cr.

7.8 <u>REVENUE FROM SALE OF POWER</u>

The revenue from sale of power from Lakroh Small HEP based on the ARR approved by Hon'ble Commission is worked out as Rs. 0.55 Cr.

MePGCL prays the Hon'ble Commission to approve the revenue as Rs. 0.55 Cr.

7.9 AGGREGATE REVENUE REQUIREMENT FOR LAKROH SMALL HEP

Based on the computation of the individual components of ARR for Lakroh Small HEP as detailed out in above paragraphs the ARR and Gap/(surplus) for LAKROH SMALL HEP is tabulated below:

Table 29 Aggregate Revenue Requirement for Lakroh Small HEP for FY 2022-23

S No	Particular	Amount (In Cr.)
1	Depreciation	1.06
2	Return on Equity	0.90
3	O&M Expenses	0.60
4	Interest and Finance Charges	1.47
5	Interest on Working Capital	0.03
6	SLDC Charges	0.00
7	Prior Period Expenses	0.00
	Total AFC	4.07
8	Less Non- Tariff Income	0.00
	Revenue Gap/ Surplus for 2017-18	0.00
	Revenue Gap/ Surplus for 2018-19	0.00
	Revenue Gap/ Surplus for 2019-20	1.48
	Net AFC	5.55

9	Revenue From Operation	0.55
	Revenue Gap/ (Surplus)	5.00

MePGCL humbly requests the Hon'ble Commission to approve the ARR for LAKROH SMALL HEP as Rs. 4.07 Cr and Net ARR of 5.55 Cr.

The detailed calculation of the individual components of ARR is being submitted in soft copy in form of excel model.

8. TRUE UP AGGREGATE REVENUE REQUIREMENT FOR OLD STATIONS OF MEPGCL (INCLUDING SONAPANI)

8.1 GROSS FIXED ASSETS (GFA)

MePGCL in compliance to directives of the Hon'ble Commission in previous true up orders has submitted the fixed asset register of all the plants and has claimed the opening and closing GFA accordingly in the true up of ARR of FY 2021-22.

Accordingly, the closing GFA of FY 2021-22 has been considered as opening GFA for 2022-23. The addition and deletion during the year has been considered as per the statement of accounts after deducting the addition deletion for MLHEP, NUHEP and Lakroh Projects. The GFA for Old Stations of MePGCL (Including Sonapani) for FY 2022-23 is tabulated below:

Table 30 Opening and Closing GFA for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) for FY 2022-23

S No	Particular	Opening GFA	Addition	Deletion	Closing GFA
1	Land	7.21	0.00	0.00	7.21
2	Buildings	13.12	0.04	0.00	13.15
3	Hydraulic Works	128.71	0.00	0.00	128.71
4	Other Civil Works	26.21	0.02	0.02	26.21
5	Plant & Machinery	246.11	1.20	0.00	247.31
6	Lines & cables	4.98	0.00	0.00	4.98
7	Vehicles	1.77	0.00	0.00	1.77
8	Furniture	2.38	0.03	0.00	2.40
9	Office Equipment	1.95	0.01	0.00	1.96
	Total	432.43	1.30	0.02	433.70

MePGCL humbly prays the Hon'ble Commission to approve the GFA for Old Stations of MePGCL (Including Sonapani) as above.

8.2 *GRANTS*

As detailed out in Chapter 2 of this Petition the amortization of the grants has been considered as reduction from ARR as Non-Tariff Income in the previous year's accordingly only the grants in books of account as on date has been considered for calculation. Further, the grants have been bifurcated on proportionate basis in GFA and CWIP. Accordingly, the opening grant for Old Stations of MePGCL comes out to Rs. 133.55 Cr and closing Grants in GFA comes out to be 135.06 Cr as on 2022-23.

8.3 DEPRECIATION

MePGCL would like to submit that it has calculated the depreciation as per the methodology outlined in the 2014 Tariff Regulations. The calculation of depreciation for Old Stations of MePGCL (Including Sonapani) is tabulated below:

Table 31 Calculation of Depreciation for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) for FY 2022-23

Particular	Opening GFA	Addition	Deletion	Closing GFA	Average GFA	Rate of Depreciation	Depreciation
Land	7.21	0.00	0.00	7.21	7.21	0.00%	0.00
Buildings	13.12	0.00	0.00	13.12	13.12	3.34%	0.44
Hydraulic Works	128.71	0.00	0.00	128.71	128.71	5.28%	6.80
Other Civil Works	26.21	0.00	0.00	26.21	26.21	3.34%	0.88
Plant & Machinery	246.11	0.00	0.00	246.11	246.11	5.28%	12.99
Lines & cables	4.98	0.00	0.00	4.98	4.98	5.28%	0.26
Vehicles	1.77	0.00	0.00	1.77	1.77	9.50%	0.17
Furniture	2.38	0.00	0.00	2.38	2.38	6.33%	0.15
Office Equipment	1.95	0.00	0.00	1.95	1.95	6.33%	0.12
Total	432.43	0.00	0.00	432.43	432.43		21.81

WAROD	5.04%
Average Grants in GFA	134.31
Depreciation on Grants	6.77
Net Depreciation	15.04

MePGCL humbly prays the Hon'ble Commission to approve the depreciation for Old Stations of MePGCL (Including Sonapani) for FY 2022-23 as Rs. 15.04 Cr.

8.4 <u>RETURN ON EQUITY</u>

MePGCL would like to submit that the opening equity has been considered 30% of the GFA in accordance with the Regulation 27 of the 2014 Tariff Regulations. The rate of return on equity as been considered as 14% in accordance with the provisions of 2014 Tariff Regulations. The calculation of Return on Equity for Old Stations of MePGCL (Including Sonapani) is tabulated below:

Table 32 Calculation of Return on Equity for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) for FY 2022-23

Particular	Amount (Rs Cr.)
Opening Equity	89.66
Equity Addition	89.59
Closing Equity	89.63
Average Equity	14%
Rate of Return on Equity	12.55

MePGCL humbly prays the Hon'ble Commission to approve the return on equity for Old Stations of MePGCL (Including Sonapani) as Rs. 12.55 Cr for FY 2022-23

8.5 *INTEREST ON LOAN*

Interest on loan has been computed as per the provisions of Regulations 27 and Regulation 32 of the 2014 Tariff Regulations and methodology detailed out in Chapter 2. The weighted average rate of interest has been computed on the actual loans running as tabulated below:

Table 33 Calculation of weighted Average Rate of Interest for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI)

S No	Name of Loan	Opening Balance	Drawal	Repayment	Closing Loan	Average Loan	Interest as Per SOA	ROI
1	State Government Loans	260.34	0.00	0.00	260.34	260.34	12.19	4.68%

The calculation of the interest on loan is tabulated below:

Table 34 Calculation of Interest on Loan for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) for FY 2022-23

Particular	Amount
Opening Loan	209.22
Cumulative Repayment	0.00
Net Normative	209.22
Addition	0.89
Repayment	0.00
Closing Loan	210.11
Average Loan	209.66
WAROI	4.68%
Interest on Loan	9.82
Financing Charges	0.00
Total IOL	9.82

MePGCL humbly prays the Hon'ble Commission to approve interest on loan as Rs.9.82 Cr. for FY 2022-23

8.6 <u>OPERATION AND MAINTENANCE EXPENSES</u>

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

The total O&M expenses in the books of accounts of MePGCL pertains to all the projects. Since, the O&M expenses of MLHEP, NUHEP and Lakroh projects are determined on normative basis, as per the settled methodology adopted in previous years, MePGCL has calculated the O&M expenses for Old station by reducing the O&M expenses as per the books of accounts by the summation of the O&M expenses claimed for other three stations.

Table 35 Operation and Maintenance Expenses for Old Stations of MePGCL (Including Sonapani) for FY 2022-23

Particulars	Amount as per SOA	O&M Claimed for MLHEP	O&M Claimed for NUHEP	O&M Claimed for Lakroh
Employee Expenses				
Salaries and wages	78.72			
Gratuity Expenses	3.43			
Leave Encashment Expenses	12.73			
Pension Expenses	25.17			
Contribution to provident and other funds	2.89			
Staff welfare expenses				
Apportionment of Employee Benefit Expenses (from Holding Company)	11.92			
Total Employee Expenses	134.86			
Less Employee Capitalized	5.34			
Net Employee Expenses	129.52			
1/3rd of Employee Expenses (MeECL)	1.62			
DOM Eymonoo				
R&M Expenses Buildings	0.05			
Plant and Equipment	0.85			
Hydraulic Works	8.25 0.82			
Civil Works	0.82			
Lines & Cables	0.09			
Vehicles	0.09			
Furniture and Fixtures	0.10			
Office equipment	0.01			
Lubricants and Consumable Stores	0.07			
Total R&M Expenses	10.95			

Particulars	Amount as per SOA	O&M Claimed for MLHEP	O&M Claimed for NUHEP	O&M Claimed for Lakroh
A&G Expenses				
Insurance Charges	6.29			
Rent, Rates and Taxes	0.01			
Telegram, Postage, Telegraph and Telex charges	0.05			
Training, conveyance and vehicle running expenses	2.02			
Printing and stationery expenses	0.08			
Auditors' remuneration	0.05			
Consultancy Charges	0.00			
Technical fees	0.00			
Books & Periodicals	0.00			
Fees and subscription expenses	0.00			
Advertisement charges	0.08			
Legal and professional charges	0.32			
Meghalaya State Electricity Regulatory Commission (MSERC) Fees	0.15			
Electricity and Water Charges	0.03			
Lab Testing Expenses	0.00			
Staff Advance written off	0.00			
Interest written off	0.00			
Bank Charges	0.00			
Entertainment expenses	0.00			
	0.00			
Miscellaneous expenses	0.06			
Total A&G Expenses	9.14			
Less: Other Expenses Capitalized	0.67			
Net R&M and A&G Expenses	19.42			
1/3 of Other Expenses of MeECL	0.950			
Total O&M Expenses	151.50	37.42	18.63	0.90
O&M Expenses for Old Plants Including Sonapani	94.55			

MePGCL prays Hon'ble Commission to approve the O&M Expenses for Old Stations of MePGCL (Including Sonapani) for FY 2022-23 as Rs. 94.55 Cr.

MePGCL would like to submit that as per the directions of the Hon'ble Commission the actuarial valuation has been completed for FY 2023-24 and the terminal benefits have been claimed in the instant Petition accordingly.

Hence, MePGCL prays the Hon'ble Commission to allow the terminal liabilities included in the Employee expenses in the above table.

8.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2022 comes out to be Rs. 12.30%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 36 Computation of Interest on Working Capital for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) for FY 2022-23

S No	Particular	Amount (In Rs. Cr.)
1	O&M Expenses for 1 Month	7.88
2	Maintenance Spares	15.03
3	Receivables	23.26
	Total Working Capital	46.17
	Rate of Interest	0.12
	Interest on Working Capital	5.68

MePGCL humbly prays the Hon'ble Commission to approve interest on working capital for FY 2022-23 for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) as Rs. 5.68 Cr.

8.8 <u>REVENUE FROM SALE OF POWER</u>

The revenue from sale of power from Old Stations of MePGCL (Including Sonapani) based on the ARR approved by Hon'ble Commission is worked out as Rs. 131.33 Cr.

MePGCL prays the Hon'ble Commission to approve the revenue as Rs. 131.33 Cr.

8.9 <u>AGGREGATE REVENUE REQUIREMENT FOR OLD STATIONS OF</u> <u>MEPGCL (INCLUDING SONAPANI)</u>

Based on the computation of the individual components of ARR for Old Stations of MePGCL (Including Sonapani) as detailed out in above paragraphs the ARR and Gap/(surplus) for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) is tabulated below:

Table 37 Aggregate Revenue Requirement for Old Stations of MePGCL (Including Sonapani) for FY 2022-23

		Amount
S No	Particular	(In Cr.)
1	Depreciation	15.04
2	Return on Equity	12.55
3	O&M Expenses	94.55
4	Interest and Finance Charges	9.82
5	Interest on Working Capital	5.68
6	SLDC Charges	1.94
7	Prior Period Expenses	0.00
	Total AFC	139.57
8	Less Non- Tariff Income	4.45
	Revenue Gap/ Surplus for 2017-18	-5.07
	Revenue Gap/ Surplus for 2018-19	-79.33
	Revenue Gap/ Surplus for 2019-20	2.83
	Net AFC	53.55

PETITION FOR TRUE UP OF GENERATION BUSINESS FOR FY 2022-23 AND APPROVAL OF MULTI YEAR ARR FOR FOURTH CONTROL PERIOD AND DETERMINATION OF GENERATION TARIFF FOR 2024-25

S No	Particular	Amount (In Cr.)
9	Revenue From Operation	131.33
	Revenue Gap/ (Surplus)	-77.78

MePGCL humbly requests the Hon'ble Commission to approve the ARR for OLD STATIONS OF MEPGCL (INCLUDING SONAPANI) as Rs. 139.57 Cr and Net ARR of 53.55 Cr.

The detailed calculation of the individual components of ARR is being submitted in soft copy in form of excel model.

9. CONSOLIDATED ARR FOR MEPGCL AS A WHOLE

Based on the calculation of the ARR for individual plants in the above chapters the consolidated ARR and Gap for MePGCL has a whole is tabulated below:

S No	Particular	MLHEP	NUHEP	Lakroh	Old Station
1	Depreciation	61.41	29.39	1.06	15.04
2	Return on Equity	53.99	25.43	0.90	12.55
3	O&M Expenses	37.42	18.63	0.60	94.55
4	Interest and Finance Charges	45.79	35.73	1.47	9.82
5	Interest on Working Capital	5.30	2.85	0.03	5.68
6	SLDC Charges	0.00	0.00	0.00	1.94
7	Prior Period Expenses	0.00	0.00	0.00	0.00
	Total AFC	203.91	112.02	4.07	139.57
8	Less Non- Tariff Income	0.00	0.00	0.00	4.45
	Revenue Gap/ Surplus for 2017- 18	-3.60	0.00	0.00	-5.07
	Revenue Gap/ Surplus for 2018- 19	-56.69	73.83	0.00	-79.33
	Revenue Gap/ Surplus for 2019- 20	-68.79	73.17	1.48	2.83
	Net AFC	74.83	259.02	5.55	53.55
9	Revenue From Operation	82.23	27.56	0.55	131.33
	Revenue Gap/ (Surplus)	-7.40	231.47	5.00	-77.78
	Total Gap		15	1.29	

MePGCL thus prays Hon'ble Commission to approve the consolidated Gap of Rs.151.29 Cr for FY 2022-23.

9.1 ACCRUED TERMINAL BENEFITS

MePGCL would like to submit before this Hon'ble Commission that as per the directions of the Hon'ble Commission it has done the actuarial valuation for the terminal benefits. The terminal liabilities for the period from 2013 to 2022-23 after considering the payment of Rs. 860 Cr made to the trust comes out to be Rs. 2441.39 Cr which has been accounted for as Actuarial Loss in the FY 2022-23 in the books of accounts of MePDCL, MePGCL, MePTCL and MeECL as under:

Company	Amount in Rs. Cr
MeECL	21.15
MePDCL	1272.22
MePGCL	749.84
MePTCL	398.17
Total	2441.39

MePGCL would like to further submit that the terminal benefits are an integral part of the employee expenses and are ought to be recovered through tariff.

However, MePGCL also takes the cognizance of the fact that the liabilities accrued for the period of 10 years cannot be allowed by the Hon'ble Commission in one year as that would result in substantial tariff shock.

In view of the above MePGCL would like to propose that the terminal liabilities that have been accrued in 10 years may be allowed in 15 equal installments without any carrying cost. Hence MePGCL proposes an additional recovery of Rs.49.99 Cr for FY 2022-23 and Rs.0.47 Cr on account of the recovery of terminal benefits of MeECL.

MePGCL would also like to submit that the amount of recovery of the accrued liabilities shall be over and above the annual contribution towards terminal benefits. Also since these are not the actual O&M expenses MePTCL would not claim the said expenses for computation of working capital and escalation of O&M expenses.

Accordingly, MePGCL request Hon'ble Commission to allow the additional recovery of Rs. 50.46 Cr in 2022-23.

Accordingly, the total Gap of FY 2022-23 comes out to be Rs.201.75 Cr.

10. DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FOURTH CONTROL PERIOD 2024-25 TO 2026-27 AND DETERMINATION OF GENERATION TARIFF FOR 2023-25

MePGCL would like to submit that the Aggregate Revenue Requirement for the fourth control period i.e., 2024-25 to 2026-27 has been based on the orders issued by the Hon'ble Commission on the Petitions filed by MePGCL for the Review of the true up Order for 2021-22, True Up Petition for FY 2022-23 and Business Plan for fourth control period. However, MePGCL reserves the right to file review/ appeal on the aforesaid orders and the claims made by MePGCL in this Petition are liable to change on the basis of the outcomes of such review/ appeals filed by MePGCL.

10.1 <u>REGULATORY BACKGROUND FOR MYT ARR PETITION</u>

As per Regulation 4 of the 2014 Tariff Regulations:

The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 on 15th September 2014. It is submitted that Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) regulations, 2014 since amended via notification dated 3rd August 2023, states as under:

"MSERC hereby extends applicability of MYT Regulations for a fourth term of MYT control period from 1.04.2024 to 31.03.2027".

As per Regulations 3, 4 & 7 of the MYT Regulations, 2014, the Hon'ble Commission will determine ARR & Tariff for the Transmission Licensee 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:

.....

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."

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 30thNovember 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.

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MePGCL requests the Commission to consider the MYT petition based on the finalized statement of accounts for FY 2021-22 and provisional statement of account for FY 2022-23. This is applicable and allowable as per Clause 18 of the MSERC Multi Year Tariff Regulations, 2014 which is given below:

"18 Filing Procedure

- 18.1 The applicant shall file the petition for approval of truing up of previous year and tariff for ensuing financial year on or before 30 November each year provided that MYT petition for FY 2015-16 to 2017-18 shall be filed along with the business plan.....
- 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"

MePGCL would like to submit the MYT ARR Petition has been prepared based on the provisions of the aforesaid Regulations for the fourth control period i.e., FY 2024-25 to FY 2026-27. MePGCL has filed the Petition for approval of the business plan for the fourth control period i.e., FY 2024-25 to FY 2026-27 wherein it has projected the following components of ARR:

- i. Plant Availability Factor and Auxiliary Consumption
- ii. Design Energy
- iii. Capital Expenditure and expected capitalization

Hon'ble Commission vide order dated 16.11.2023 has approved the business plan filed by MePGCL. The MYT ARR Petition has been prepared based on the principles adopted in the business plan and subsequent approval of Hon'ble Commission. The detailed approach of each component of Multi Year Aggregate Revenue Requirement has been discussed in details in subsequent sections.

10.2 <u>CAPEX AND CAPITALIZATION ALLOWED BY HON'BLE COMMISSION</u> <u>IN BUSINESS PLAN FOR FOURTH CONTROL PERIOD</u>

The Hon'ble Commission vide order dated 16.11.2023 has approved the business plan for generation business for fourth control period i.e., FY 2024-25 to FY 2026-27. The approved Capex and capitalization in the aforesaid order are tabulated below:

Table 38 Approved Capitalization for Fourth Control Period

Financial Year	Lakroh	MLHEP	NUHEP	Old Project	Grand Total
2024-25	0.6	1.00	0.00	0.00	1.60
2025-26	1.14	44.50	0.50	0.00	46.14
2026-27	0.00	76.38	0.14	1070.10	1146.62
Grand Total	1.74	121.88	0.64	1070.1	1194.36

SI	Station	CAPEX	Funding	g Pattern ((Rs. Cr)
No	Station	CAPEX	Equity	Debt	Grant
A. E	xisting Stations				
1	Umiam Stage-I HE Project (36 MW)	114.83	79.09	35.73	
2	Umiam Stage-II HE Project (20MW)	48.74	40.86	7.96	
3	Umiam Stage-III HE Project (60MW)	499.49	151.8	63.63	284.13
4	Umiam Stage-IV HE Project (60 MW)	31.67	11.02	20.74	
5	Umtru Power Station (11.2 MW)	0.10	0.09	0.1	
6	Sonapani MHP (1.5 MW)	0.34	0.102	0.24	
7	MyntduLeshka HE Project (126MW)	46.85	42.175	4.92	
8	New Umtru HE Project (40MW)	0.64	0.126	0.1	

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SI	Station	CAPEX	Funding	g Pattern ((Rs. Cr)
9	Lakroh MHP (1.5 MW)	1.74	1.57	0.17	
10	System Protection and Communication	8.99	2.697	6.29	
11	Dam Rehabilitation and Improvement Project (DRIP)	441.00	123.48		317.52
12	Ganol SHP (22.5 MW)	45.00	13.50	31.50	
	Total Existing projects	1239.36	466.521	171.39	601.65
B. C	n-going Generation plants				
13	Riangdo SHP (3MW)	39.97	8.57	11.40	20.00
Up-	coming Generation Plants				
14	MyntduLeshka Stage-II HE Project (210 MW)	2187.88	113.81	248.24	1707.11
15	Umrina Stage-I SHP (6MW)	122.91	6.45	15.05	101.4
16	Nan-Ramnian (9MW)	163.7	1.44	3.36	158.9
17	Ganol Stage-II (14MW)	283.73	85.16	198.71	
18	Upper Khri Diversion Project	899.59	269.82	629.71	
	Total On-going/Upcoming projects	3697.78	485.25	1106.47	1987.41
C. S	urvey & Investigation				
19	MLHEP-II (3X70)MW	2.13		0.21	1.92
20	UMNGI(2X31)MW	9.82		0.98	8.84
21	SELIM(2X40)MW	4.66		0.46	4.19
22	MAWBLEI(2X38)MW	5.62		0.56	5.06
23	NONGKOHLAIT(2X60)MW	8.84		0.88	7.96
24	Amkshar Stage-II (21 MW)	3.01			3.01
25	Lower Rongdi SHP (15MW)	2.72			2.72
26	Nan Ramnian Umkhyrni Stage-II SHP (15MW)	2.79			2.79
27	Sidiguri SHP (13 MW)	1.83			1.83
	Total S&I Works	41.42	0	3.107	38.31
	GRAND TOTAL (A+B+C)	4978.56	951.77	1280.97	2627.37

MePGCL would like to submit that only capital expenditure and capitalization for the existing plants have been considered in the instant Petition.

11. DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FOURTH CONTROL PERIOD 2024-25 TO 2026-27 FOR MLHEP AND DETERMINATION OF TARIFF FOR 2024-25

11.1 GROSS FIXED ASSETS

The Opening GFA as on 01.04.2024 have been taken as the closing GFA of 2022-23, without considering any capitalization in the FY 2022-23. The subsequent addition has been considered as per the approved business plan for fourth control period.

The movement of GFA in the fourth control period is tabulated below:

Table 39 GFA for MLHEP for Fourth Control Period

GFA	2023-24	2024-25	2025-26	2026-27
Opening GFA	1285.50	1285.50	1286.50	1331.00
Addition	0.00	1.00	44.50	76.38
Closing GFA	1285.50	1286.50	1331.00	1407.38

11.2 FUNDING PATTERN OF THE CAPITALIZATION

The funding pattern of the capitalization shown in the table above has also been considered in the approved Business plan for the fourth control period.

Table 40 Funding Pattern of Capitalization

Funding Pattern of Capitalization	2023-24	2024-25	2025-26	2026-27
Loan	0.00	0.70	31.15	15.65
Equity	0.00	0.30	13.35	6.71
Grant	0.00	0.00	0.00	54.02
Total	0.00	1.00	44.50	76.38

Accordingly, the movement of grants in fourth control period for MLHEP has been tabulated below:

Table 41 Movement of Grants

Particular	2023-24	2024-25	2025-26	2026-27
Opening Grants	0.00	0.00	0.00	0.00
Addition	0.00	0.00	0.00	54.02
Closing Gants	0.00	0.00	0.00	54.02

_		_	_	_
Average Grants	0.00	0.00	0.00	27.01

11.3 RETURN ON EQUITY

The opening equity for 2023-24 has been considered as the closing equity of the FY 2022-23. The addition in equity has been considered as per the funding pattern of the capitalization as shown in table 40 above.

Accordingly, the return on equity has been calculated as under:

Table 42 Calculation off Return on Equity for MLHEP for Fourth Control Period

Return on Equity	2023-24	2024-25	2025-26	2026-27
Opening Equity	385.65	385.65	385.95	399.30
Addition	0.00	0.30	13.35	6.71
Closing Equity	385.65	385.95	399.30	406.01
Average Equity	385.65	385.80	392.63	402.65
Rate of ROE	14.00%	14.00%	14.00%	14.00%
ROE	53.99	54.01	54.97	56.37

MePGCL prays Hon'ble Commission to approve the Return on Equity as depicted above.

11.4 INTEREST ON LOAN

MePGCL would like to submit that the interest on loan has been considered as per the detailed explanation given in Chapter 2. The closing loan of FY 2022-23 has been considered as the opening loan of 2023-24 and subsequent addition has been considered as per the approved funding pattern of capitalization in the business plan. Further, since the actual weighted average rate of interest would be available at the time of true up of respective years, the weighted average rate of interest for FY 2022-23 has been considered for entire control period. MePGCL craves leave of Hon'ble Commission to claim the actual weighted average rate of interest at the time of true up of respective years.

The calculation of Interest on loan is tabulated below:

Table 43 Interest on Loan for MLHEP for Fourth Control Period

Interest on Loan	2023-24	2024-25	2025-26	2026-27
Gross Opening Loan	899.85	899.85	899.85	899.85
Cumulative Repayment	484.86	558.93	633.01	707.08
Net Opening Loan	414.99	340.92	266.84	192.77
Repayment	74.07	74.07	74.07	74.07
Addition	0.00	0.70	31.15	15.65
Net Closing Loan	340.92	267.54	223.92	134.34
WAROI	10.13%	10.13%	10.13%	10.13%
Interest on Loan	34.53	27.10	22.68	13.61

MePGCL prays Hon'ble Commission to approve the Interest on loan for MLHEP project as tabulated above.

11.5 DEPRECIATION

The depreciation has been calculated on the average GFA. The GFA movement has been considered as depicted in table 39 above. Further, since the asset wise breakup of the capitalization is not available at this point of time the weighted average rate of depreciation for FY 2022-23 has been considered for calculation of depreciation in the entire control period. MePGCL craves leave of this Hon'ble Commission to claim the weighted average rate of depreciation for the respective years as per the actual breakup of assets at the time of truing up of respective years.

The calculation of the depreciation is tabulated below:

Table 44 Calculation of Depreciation for MLHEP for Fourth Control Period

Depreciation	2023-24	2024-25	2025-26	2026-27
Opening GFA	1285.50	1285.50	1286.50	1331.00
Closing GFA	1285.50	1286.50	1331.00	1407.38
Average GFA	1285.50	1286.00	1308.75	1369.19
Rate of Depreciation	4.78%	4.78%	4.78%	4.78%
Depreciation	61.41	61.43	62.52	65.41
Average Grants in GFA	0.00	0.00	0.00	27.01
Depreciation on Grants	0.00	0.00	0.00	1.29
Net Depreciation	61.41	61.43	62.52	64.12

MePGCL prays the Hon'ble Commission to approve the depreciation as proposed above.

11.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

MePGCL would like to submit that based on above regulations the O&M expenses of FY 2022-23 have been escalated at the rate of 5.72% per year to arrive at the O&M expenses for the fourth control period.

The O&M expenses for the fourth control period are tabulated below:

Table 45 Operation and Maintenance Expenses for MLHEP for Fourth Control Period

O&M Expenses	2023-24	2024-25	2025-26	2026-27
Operation and Maintenance				
Expenses	39.6	41.8	44.2	46.8

MePGCL prays the Hon'ble Commission to approve the O&M expenses for MLHEP as tabulated above.

11.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2023 comes out to be Rs. 14.85%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 46 Interest on Working Capital for Fourth Control Period for MLHEP

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
O&M Expenses	3.30	3.49	3.69	3.90
Maintenance Spares	6.29	6.65	7.03	7.43
Receivables	32.63	31.77	31.78	31.19
Total Working Capital	42.22	41.90	42.50	42.52
Rete of Interest	14.85%	14.85%	14.85%	14.85%
Interest on Working Capital	6.27	6.22	6.31	6.31

11.8 AGGREGATE REVENUE REQUIREMENT

Based on the computation of the individual components the Aggregate Revenue Requirement of MLHEP for fourth control period is tabulated below:

Table 47 Aggregate Revenue Requirement for MLHEP for Fourth Control Period

Particular	2023-24	2024-25	2025-26	2026-27
Depreciation	61.41	61.43	62.52	64.12
Interest on Loan	34.53	27.10	22.68	13.61
Return on Equity	53.99	54.01	54.97	56.37
Operation and Maintenance	39.6	41.8	44.2	46.8
Interest on Working Capital	6.27	6.22	6.31	6.31
ARR	195.77	190.60	190.70	187.16
Non-Tariff Income	0	0	0	0
Net ARR	195.77	190.60	190.70	187.16

MePGCL prays the Hon'ble Commission to approve the ARR for MLHEP as projected above.

The detailed calculation of the individual component has been provided in the excel model being submitted in soft copy along with this Petition.

12. DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FOURTH CONTROL PERIOD 2024-25 TO 2026-27 FOR NUHEP AND DETERMINATION OF TARIFF FOR 2024-25

12.1 GROSS FIXED ASSETS

The Opening GFA as on 01.04.2024 have been taken as the closing GFA of 2022-23, without considering any capitalization in the FY 2022-23. The subsequent addition has been considered as per the approved business plan for fourth control period.

The movement of GFA in the fourth control period is tabulated below:

Table 48 GFA for NUHEP for Fourth Control Period

GFA	2023-24	2024-25	2025-26	2026-27
Opening GFA	605.40	605.40	605.40	605.90
Addition	0.00	0.00	0.50	0.14
Closing GFA	605.40	605.40	605.90	606.04

12.2 FUNDING PATTERN OF THE CAPITALIZATION

The funding pattern of the capitalization shown in the table above has also been considered in the approved Business plan for the fourth control period.

Table 49 Funding Pattern of Capitalization

Funding Pattern of Capitalization	2023-24	2024-25	2025-26	2026-27
Loan	0.00	0.00	0.35	0.10
Equity	0.00	0.00	0.15	0.04
Grant	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.50	0.14

Accordingly, the movement of grants in fourth control period for NUHEP has been tabulated below:

Table 50 Movement of Grants

Particular	2023-24	2024-25	2025-26	2026-27
Opening Grants	0.00	0.00	0.00	0.00
Addition	0.00	0.00	0.00	0.00
Closing Gants	0.00	0.00	0.00	0.00
Average Grants	0.00	0.00	0.00	0.00

12.3 RETURN ON EQUITY

The opening equity for 2023-24 has been considered as the closing equity of the FY 2022-23. The addition in equity has been considered as per the funding pattern of the capitalization as shown in table 49 above.

Accordingly, the return on equity has been calculated as under:

Table 51 Calculation off Return on Equity for NUHEP for Fourth Control Period

Return on Equity	2023-24	2024-25	2025-26	2026-27
Opening Equity	181.61	181.61	181.61	181.76
Addition	0.00	0.00	0.15	0.04
Closing Equity	181.61	181.61	181.76	181.80
Average Equity	181.61	181.61	181.69	181.78
Rate of ROE	14.00%	14.00%	14.00%	14.00%
ROE	25.43	25.43	25.44	25.45

MePGCL prays Hon'ble Commission to approve the Return on Equity as depicted above.

12.4 INTEREST ON LOAN

MePGCL would like to submit that the interest on loan has been considered as per the detailed explanation given in Chapter 2. The closing loan of FY 2022-23 has been considered as the opening loan of 2023-24 and subsequent addition has been considered as per the approved funding pattern of capitalization in the business plan. Further, since the actual weighted average rate of interest would be available at the time of true up of respective years, the weighted average rate of interest for FY 2022-23 has been considered for entire control period. MePGCL craves leave of Hon'ble Commission to claim the actual weighted average rate of interest at the time of true up of respective years.

The calculation of Interest on loan is tabulated below:

Table 52 Interest on Loan for NUHEP for Fourth Control Period

Interest on Loan	2023-24	2024-25	2025-26	2026-27
Gross Opening Loan	423.76	423.76	423.76	423.76
Cumulative Repayment	127.44	166.75	206.06	245.38
Net Opening Loan	296.32	257.01	217.69	178.38
Repayment	39.31	39.31	39.31	39.31
Addition	0.00	0.00	0.35	0.10
Net Closing Loan	257.01	217.69	178.73	139.17
WAROI	11.31%	11.31%	11.31%	11.31%
Interest on Loan	29.06	24.62	20.21	15.74

MePGCL prays Hon'ble Commission to approve the Interest on loan for NUHEP project as tabulated above.

12.5 DEPRECIATION

The depreciation has been calculated on the average GFA. The GFA movement has been considered as depicted in table 48 above. Further, since the asset wise breakup of the capitalization is not available at this point of time the weighted average rate of depreciation for FY 2022-23 has been considered for calculation of depreciation in the entire control period. MePGCL craves leave of this Hon'ble Commission to claim the weighted average rate of depreciation for the

respective years as per the actual breakup of assets at the time of truing up of respective years.

The calculation of the depreciation is tabulated below:

Table 53 Calculation of Depreciation for NUHEP for Fourth Control Period

Depreciation	2023-24	2024-25	2025-26	2026-27
Opening GFA	605.40	605.40	605.40	605.90
Closing GFA	605.40	605.40	605.90	606.04
Average GFA	605.40	605.40	605.65	605.97
Rate of Depreciation	4.85%	4.85%	4.85%	4.85%
Depreciation	29.39	29.39	29.40	29.42
Average Grants in GFA	0.00	0.00	0.00	0.00
Depreciation on Grants	0.00	0.00	0.00	0.00
Net Depreciation	29.39	29.39	29.40	29.42

MePGCL prays the Hon'ble Commission to approve the depreciation as proposed above.

12.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

MePGCL would like to submit that based on above regulations the O&M expenses of FY 2022-23 have been escalated at the rate of 5.72% per year to arrive at the O&M expenses for the fourth control period.

The O&M expenses for the fourth control period are tabulated below:

Table 54 Operation and Maintenance Expenses for NUHEP for Fourth Control Period

O&M Expenses	2023-24	2024-25	2025-26	2026-27
Operation and Maintenance Expenses	19.7	20.8	22.0	23.3

MePGCL prays the Hon'ble Commission to approve the O&M expenses for NUHEP as tabulated above.

12.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2023 comes out to be Rs. 14.85%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 55 Interest on Working Capital for Fourth Control Period for NUHEP

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
O&M Expenses	1.64	1.73	1.83	1.94
Maintenance Spares	3.13	3.31	3.50	3.70
Receivables	17.82	17.26	16.72	16.19
Total Working Capital	22.59	22.31	22.06	21.82

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Rete of Interest	14.85%	14.85%	14.85%	14.85%
Interest on Working Capital	3.36	3.31	3.28	3.24

12.8 AGGREGATE REVENUE REQUIREMENT

Based on the computation of the individual components the Aggregate Revenue Requirement of NUHEP for fourth control period is tabulated below:

Table 56 Aggregate Revenue Requirement for NUHEP for Fourth Control Period

Particular	2023-24	2024-25	2025-26	2026-27
Depreciation	29.39	29.39	29.40	29.42
Interest on Loan	29.06	24.62	20.21	15.74
Return on Equity	25.43	25.43	25.44	25.45
Operation and Maintenance	19.7	20.8	22.0	23.3
Interest on Working Capital	3.36	3.31	3.28	3.24
ARR	106.92	103.56	100.33	97.11
Non-Tariff Income	0	0	0	0
Net ARR	106.92	103.56	100.33	97.11

MePGCL prays the Hon'ble Commission to approve the ARR for NUHEP as projected above.

The detailed calculation of the individual component has been provided in the excel model being submitted in soft copy along with this Petition.

13. DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FOURTH CONTROL PERIOD 2024-25 TO 2026-27 FOR LAKROH SMALL HEP AND DETERMINATION OF TARIFF FOR 2024-25

13.1 GROSS FIXED ASSETS

The Opening GFA as on 01.04.2024 have been taken as the closing GFA of 2022-23, without considering any capitalization in the FY 2022-23. The subsequent addition has been considered as per the approved business plan for fourth control period.

The movement of GFA in the fourth control period is tabulated below:

Table 57 GFA for Lakroh Small HEP for Fourth Control Period

GFA	2023-24	2024-25	2025-26	2026-27
Opening GFA	26.47	26.47	27.07	28.21
Addition	0.00	0.60	1.14	0.00
Closing GFA	26.47	27.07	28.21	28.21

13.2 FUNDING PATTERN OF THE CAPITALIZATION

The funding pattern of the capitalization shown in the table above has also been considered in the approved Business plan for the fourth control period.

Table 58 Funding Pattern of Capitalization

Funding Pattern of Capitalization	2023-24	2024-25	2025-26	2026-27
Loan	0.00	0.42	0.80	0.00
Equity	0.00	0.18	0.34	0.00
Grant	0.00	0.00	0.00	0.00
Total	0.00	0.60	1.14	0.00

Accordingly, the movement of grants in fourth control period for LAKROH SMALL HEP has been tabulated below:

Table 59 Movement of Grants

Particular	2023-24	2024-25	2025-26	2026-27
Opening Grants	4.95	4.95	4.95	4.95
Addition	0.00	0.00	0.00	0.00
Closing Gants	4.95	4.95	4.95	4.95
Average Grants	4.95	4.95	4.95	4.95

13.3 RETURN ON EQUITY

The opening equity for 2023-24 has been considered as the closing equity of the FY 2022-23. The addition in equity has been considered as per the funding pattern of the capitalization as shown in table 58 above.

Accordingly, the return on equity has been calculated as under:

Table 60 Calculation off Return on Equity for Lakroh Small HEP for Fourth Control Period

Return on Equity	2023-24	2024-25	2025-26	2026-27
Opening Equity	6.44	6.44	6.62	6.96
Addition	0.00	0.18	0.34	0.00
Closing Equity	6.44	6.62	6.96	6.96
Average Equity	6.44	6.53	6.79	6.96
Rate of ROE	14.00%	14.00%	14.00%	14.00%
ROE	0.90	0.91	0.95	0.97

MePGCL prays Hon'ble Commission to approve the Return on Equity as depicted above.

13.4 INTEREST ON LOAN

MePGCL would like to submit that the interest on loan has been considered as per the detailed explanation given in Chapter 2. The closing loan of FY 2022-23

has been considered as the opening loan of 2023-24 and subsequent addition has been considered as per the approved funding pattern of capitalization in the business plan. Further, since the actual weighted average rate of interest would be available at the time of true up of respective years, the weighted average rate of interest for FY 2022-23 has been considered for entire control period. MePGCL craves leave of Hon'ble Commission to claim the actual weighted average rate of interest at the time of true up of respective years.

The calculation of Interest on loan is tabulated below:

Table 61 Interest on Loan for Lakroh Small HEP for Fourth Control Period

Interest on Loan	2023-24	2024-25	2025-26	2026-27
Gross Opening Loan	15.03	15.03	15.03	15.03
Cumulative Repayment	0.81	1.31	1.80	2.30
Net Opening Loan	14.22	13.72	13.23	12.73
Repayment	0.50	0.50	0.50	0.50
Addition	0.00	0.42	0.80	0.00
Net Closing Loan	13.72	13.65	13.53	12.24
WAROI	10.18%	10.18%	10.18%	10.18%
Interest on Loan	1.40	1.39	1.38	1.25

MePGCL prays Hon'ble Commission to approve the Interest on loan for LAKROH SMALL HEP project as tabulated above.

13.5 DEPRECIATION

The depreciation has been calculated on the average GFA. The GFA movement has been considered as depicted in table 57 above. Further, since the asset wise breakup of the capitalization is not available at this point of time the weighted average rate of depreciation for FY 2022-23 has been considered for calculation of depreciation in the entire control period. MePGCL craves leave of this Hon'ble Commission to claim the weighted average rate of depreciation for the

respective years as per the actual breakup of assets at the time of truing up of respective years.

The calculation of the depreciation is tabulated below:

Table 62 Calculation of Depreciation for Lakroh Small HEP for Fourth Control Period

Depreciation	2023-24	2024-25	2025-26	2026-27
Opening GFA	26.47	26.47	27.07	28.21
Closing GFA	26.47	27.07	28.21	28.21
Average GFA	26.47	26.77	27.64	28.21
Rate of Depreciation	4.92%	4.92%	4.92%	4.92%
Depreciation	1.30	1.32	1.36	1.39
Average Grants in GFA	4.95	4.95	4.95	4.95
Depreciation on Grants	0.24	0.24	0.24	0.24
Net Depreciation	1.06	1.07	1.12	1.15

MePGCL prays the Hon'ble Commission to approve the depreciation as proposed above.

13.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

MePGCL would like to submit that based on above regulations the O&M expenses of FY 2022-23 have been escalated at the rate of 5.72% per year to arrive at the O&M expenses for the fourth control period.

The O&M expenses for the fourth control period are tabulated below:

Table 63 Operation and Maintenance Expenses for Lakroh Small HEP for Fourth Control Period

O&M Expenses	2023-24	2024-25	2025-26	2026-27
Operation and Maintenance Expenses	0.64	0.67	0.71	0.75

MePGCL prays the Hon'ble Commission to approve the O&M expenses for LAKROH SMALL HEP as tabulated above.

13.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2023 comes out to be Rs. 14.85%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 64 Interest on Working Capital for Fourth Control Period for Lakroh Small HEP

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
O&M Expenses	0.05	0.06	0.06	0.06

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
Maintenance Spares	0.10	0.11	0.11	0.12
Receivables	0.69	0.70	0.71	0.71
Total Working Capital	0.84	0.86	0.89	0.89
Rete of Interest	14.85%	14.85%	14.85%	14.85%
Interest on Working Capital	0.12	0.13	0.13	0.13

13.8 AGGREGATE REVENUE REQUIREMENT

Based on the computation of the individual components the Aggregate Revenue Requirement of LAKROH SMALL HEP for fourth control period is tabulated below:

Table 65 Aggregate Revenue Requirement for Lakroh Small HEP for Fourth Control Period

Particular	2023-24	2024-25	2025-26	2026-27
Depreciation	1.06	1.07	1.12	1.15
Interest on Loan	1.40	1.39	1.38	1.25
Return on Equity	0.90	0.91	0.95	0.97
Operation and Maintenance	0.6	0.7	0.7	0.8
Interest on Working Capital	0.12	0.13	0.13	0.13
ARR	4.12	4.18	4.29	4.25
Non-Tariff Income	0	0	0	0
Net ARR	4.12	4.18	4.29	4.25

MePGCL prays the Hon'ble Commission to approve the ARR for Lakroh Small HEP as projected above.

The detailed calculation of the individual component has been provided in the excel model being submitted in soft copy along with this Petition.

14. DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FOURTH CONTROL PERIOD 2024-25 TO 2026-27 FOR OLD STATIONS (INCLUDING SONAPANI) AND DETERMINATION OF TARIFF FOR 2024-25

14.1 GROSS FIXED ASSETS

The Opening GFA as on 01.04.2024 have been taken as the closing GFA of 2022-23, without considering any capitalization in the FY 2022-23. The subsequent addition has been considered as per the approved business plan for fourth control period.

The movement of GFA in the fourth control period is tabulated below:

Table 66 GFA for Old Stations (Including Sonapani) for Fourth Control Period

GFA	2023-24	2024-25	2025-26	2026-27
Opening GFA	433.70	433.70	433.70	433.70
Addition	0.00	0.00	0.00	1070.10
Closing GFA	433.70	433.70	433.70	1503.80

14.2 FUNDING PATTERN OF THE CAPITALIZATION

The funding pattern of the capitalization shown in the table above has also been considered in the approved Business plan for the fourth control period.

Table 67 Funding Pattern of Capitalization

Funding Pattern of Capitalization	2023-24	2024-25	2025-26	2026-27
Loan	0.00	0.00	0.00	365.73
Equity	0.00	0.00	0.00	156.74
Grant	0.00	0.00	0.00	547.63
Total	0.00	0.00	0.00	1070.10

Accordingly, the movement of grants in fourth control period for Old Stations (Including Sonapani) has been tabulated below:

Table 68 Movement of Grants

Particular	2023-24	2024-25	2025-26	2026-27
Opening Grants	135.06	135.06	135.06	135.06
Addition	0.00	0.00	0.00	547.63
Closing Gants	135.06	135.06	135.06	682.69
Average Grants	135.06	135.06	135.06	408.88

14.3 RETURN ON EQUITY

The opening equity for 2023-24 has been considered as the closing equity of the FY 2022-23. The addition in equity has been considered as per the funding pattern of the capitalization as shown in table 67 above.

Accordingly, the return on equity has been calculated as under:

Table 69 Calculation off Return on Equity for Old Stations (Including Sonapani) for Fourth Control Period

Return on Equity	2023-24	2024-25	2025-26	2026-27
Opening Equity	89.59	89.59	89.59	89.59
Addition	0.00	0.00	0.00	156.74
Closing Equity	89.59	89.59	89.59	246.33
Average Equity	89.59	89.59	89.59	167.96
Rate of ROE	14.00%	14.00%	14.00%	14.00%
ROE	12.54	12.54	12.54	23.51

MePGCL prays Hon'ble Commission to approve the Return on Equity as depicted above.

14.4 INTEREST ON LOAN

MePGCL would like to submit that the interest on loan has been considered as per the detailed explanation given in Chapter 2. The closing loan of FY 2022-23 has been considered as the opening loan of 2023-24 and subsequent addition has been considered as per the approved funding pattern of capitalization in the business plan. Further, since the actual weighted average rate of interest would be available at the time of true up of respective years, the weighted average rate of interest for FY 2022-23 has been considered for entire control period. MePGCL craves leave of Hon'ble Commission to claim the actual weighted average rate of interest at the time of true up of respective years.

The calculation of Interest on loan is tabulated below:

Table 70 Interest on Loan for Old Stations (Including Sonapani) for Fourth Control Period

Interest on Loan	2023-24	2024-25	2025-26	2026-27
Gross Opening Loan	209.22	209.22	209.22	209.22
Cumulative Repayment	0.00	5.00	10.00	15.00
Net Opening Loan	209.22	204.22	199.22	194.22
Repayment	5.00	5.00	5.00	5.00
Addition	0.00	0.00	0.00	365.73
Net Closing Loan	204.22	199.22	194.22	554.95
WAROI	4.68%	4.68%	4.68%	4.68%
Interest on Loan	9.56	9.33	9.09	25.98

MePGCL prays Hon'ble Commission to approve the Interest on loan for OLD STATIONS (INCLUDING SONAPANI) project as tabulated above.

14.5 DEPRECIATION

The depreciation has been calculated on the average GFA. The GFA movement has been considered as depicted in table 66 above. Further, since the asset wise breakup of the capitalization is not available at this point of time the weighted

average rate of depreciation for FY 2022-23 has been considered for calculation of depreciation in the entire control period. MePGCL craves leave of this Hon'ble Commission to claim the weighted average rate of depreciation for the respective years as per the actual breakup of assets at the time of truing up of respective years.

The calculation of the depreciation is tabulated below:

Table 71 Calculation of Depreciation for Old Stations (Including Sonapani) for Fourth Control
Period

Depreciation	2023-24	2024-25	2025-26	2026-27
Opening GFA	433.70	433.70	433.70	433.70
Closing GFA	433.70	433.70	433.70	1503.80
Average GFA	433.70	433.70	433.70	968.75
Rate of Depreciation	5.04%	5.04%	5.04%	5.04%
Depreciation	21.87	21.87	21.87	48.86
Average Grants in GFA	135.06	135.06	135.06	408.88
Depreciation on Grants	6.81	6.81	6.81	20.62
Net Depreciation	15.06	15.06	15.06	28.24

MePGCL prays the Hon'ble Commission to approve the depreciation as proposed above.

14.6 OPERATION AND MAINTENANCE EXPENSES

Regulation 56 of MSERC Tariff Regulations, 2014 provides for Operation and Maintenance Expenses and is reproduced as under:

"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."

MePGCL would like to submit that the operation and maintenance expenses have been computed by considering a year on year escalation of 5.72% over the actual operation and maintenance expenses of FY 2022-23. Further, as appraised in the business plan the pay revision of MeECL and subsidiary companies is due in January 2025. The estimated multiplication factor of 1.59 has been considered as an impact of wage revision. The methodology for calculation of the multiplication factor of 1.59 is annexed to this Petition as Annexure D

Thus for the purpose of the computation of employee expenses of 2024-25 the estimated employee expenses (salary and wage component) of 2023-24 is escalated at 5.72% for 9 months and for rest of the 3 months of 2024-25 the multiplication factor of 1.59 has been considered. The detailed calculation of employee expenses, R&M expenses and A&G expenses has been provided in the excel model submitted along with the Petition.

The calculation of employee expenses, R&M expenses and the A&G expenses is tabulated below:

Table 72 Operation and Maintenance Expenses for Old Stations (Including Sonapani) for Fourth Control Period

Particular	2023-24	2024-25	2025-26	2026-27	
Salaries and wages	83.22	99.07	104.73	110.72	
Gratuity Expenses	3.63	3.84	4.06	4.29	
Leave Encashment Expenses	13.45	14.22	15.04	15.90	
Pension Expenses	26.61	28.13	29.74	31.44	
Contribution to provident and other funds	3.05	3.23	3.41	3.61	
Staff welfare expenses	0.00	0.00	0.00	0.00	
Apportionment of Employee Benefit Expenses (from Holding Company)	12.61	13.33	14.09	14.90	
Total Employee Expenses	142.57	161.81	171.07	180.86	
Less Employee Capitalized	0.00	0.00	0.00	0.00	
Net Employee Expenses	142.57	161.81	171.07	180.86	
1/3rd of Employee Expenses (MeECL)	1.71	1.81	1.91	2.02	
Total Employee Expenses	144.29	163.62	172.98	182.88	
R&M Expenses	23.15	24.47	25.87	27.35	
A&G Expenses	10.67	11.28	11.92	12.60	

Total Projected O&M Expenses	178.10	199.37	210.78	222.84
O&M Expenses- MLHEP	39.57	41.83	44.22	46.75
O&M Expenses- NUHEP	19.69	20.82	22.01	23.27
O&M Expenses- Lakroh	0.64	0.67	0.71	0.75
Total	59.90	63.32	66.94	70.77
O&M Expenses of Old Plants	118.21	136.05	143.83	152.06

MePGCL prays the Hon'ble Commission to approve the O&M expenses for OLD STATIONS (INCLUDING SONAPANI) as tabulated above.

14.7 INTEREST ON WORKING CAPITAL

As per Regulation 34.1(iii) of 2014 Tariff Regulations:

"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. "

The SBI Advance Rate as on 01.04.2023 comes out to be Rs. 14.85%. Accordingly, the calculation of interest on working capital is tabulated below:

Table 73 Interest on Working Capital for Fourth Control Period for Old Stations (Including Sonapani)

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
O&M Expenses	9.85	11.34	11.99	12.67
Maintenance Spares	18.79	21.63	22.87	24.18

Interest on Working Capital	2023-24	2024-25	2025-26	2026-27
Receivables	28.41	31.57	32.95	41.46
Total Working Capital	57.05	64.54	67.80	78.31
Rete of Interest	14.85%	14.85%	14.85%	14.85%
Interest on Working Capital	8.47	9.58	10.07	11.63

14.8 <u>AGGREGATE REVENUE REQUIREMENT</u>

Based on the computation of the individual components the Aggregate Revenue Requirement of OLD STATIONS (INCLUDING SONAPANI) for fourth control period is tabulated below:

Table 74 Aggregate Revenue Requirement for Old Stations (Including Sonapani) for Fourth Control Period

Particular	2023-24	2024-25	2025-26	2026-27
Depreciation	15.06	15.06	15.06	28.24
Interest on Loan	9.56	9.33	9.09	25.98
Return on Equity	12.54	12.54	12.54	23.51
Operation and Maintenance	118.2	136.1	143.8	152.1
Interest on Working Capital	8.47	9.58	10.07	11.63
ARR	1.94	1.94	1.94	1.94
Non-Tariff Income	165.78	184.51	192.54	243.36
Net ARR	4.67	4.90	5.15	5.41

MePGCL prays the Hon'ble Commission to approve the ARR for Old Stations (Including Sonapani) as projected above.

The detailed calculation of the individual component has been provided in the excel model being submitted in soft copy along with this Petition.

15. CONSOLIDATED ARR FOR MEPGCL AS A WHOLE AND DETERMINATION OF TARIFF FOR 2024-25

Based on the calculation of the ARR for individual plants in the above chapters the consolidated ARR and Gap for MePGCL has a whole is tabulated below:

Table 75 Consolidated ARR for MePGCL for Fourth Control Period

		202	4-25		2025-26				2026	-27		
AFC	MLHEP	NUHEP	Lakroh	Old Plant	MLHEP	NUHEP	Lakro h	Old Plant	MLHEP	NUHE P	Lakr oh	Old Plant
Depreciation	61.43	29.40	1.07	15.06	62.52	29.40	1.12	15.06	64.12	29.42	1.15	28.24
Interest on Loan	27.10	20.21	1.39	9.33	22.68	20.21	1.38	9.09	13.61	15.74	1.25	25.98
Return on Equity	54.01	25.44	0.91	12.54	54.97	25.44	0.95	12.54	56.37	25.45	0.97	23.51
Operation and Maintenance	41.8	22.0	0.7	136.1	44.2	22.0	0.7	143.8	46.8	23.3	0.8	152.1
Interest on Working Capital	6.22	3.28	0.13	9.58	6.31	3.28	0.13	10.07	6.31	3.24	0.13	11.63
SLDC Charges	0.00	0.00	0.00	1.94	0.00	0.00	0.00	1.94	0.00	0.00	0.00	1.94
ARR	190.60	100.33	4.18	184.51	190.70	100.33	4.29	192.54	187.16	97.11	4.25	243.36
Non-Tariff Income	0.00	0.00	0.00	4.90	0.00	0.00	0.00	5.15	0.00	0.00	0.00	5.41
Net ARR	190.60	100.33	4.18	179.60	190.70	100.33	4.29	187.39	187.16	97.11	4.25	237.96
Adjustment of Gaps												
Review Gap 2020-21	0.00	0.00	0.00	0.00								
Gap Allowed in 2021-22	72.19	54.42	1.15	-0.90								
Gap Claimed in 2022-23	-7.40	231.47	5.00	-77.78								
Gap of Terminal Liabilities	17.85	5.67	0.21	26.73								
Total Previous Gaps	82.64	291.56	6.36	-51.95								
ARR after Adjustment of Gaps	273.24	391.89	10.54	127.66	190.70	100.33	4.29	187.39	187.16	97.11	4.25	237.96

Table 76 Calculation of Generation Tariff of Each Plant

Particular	MLHEP	NUHEP	Lakroh	Old Station
ARR for 2024-25	273.24	391.89	10.54	127.66
Projected Generation	478.71	231.48	10.868	506.22
Rate (Rs/kWh)	5.71	16.93	9.70	2.52

MePGCL would like to submit that the per unit cost is inclusive of the previous year gaps as claimed in the table above.

MePGCL prays the Hon'ble Commission to approve the Total ARR and per Unit Cost of each project as projected above.

16. LIST OF ANNEXURES

- 1. RESOLUTION OF BOARD OF DIRECTORS
- 2. AUDITED STATEMENT OF ACCOUNT OF MEPGCL
- 3. AUDITED STATEMENT OF ACCOUNT OF MEECL
- 4. CALCULATION OF MULTIPLYING FACTOR FOR REVISION OF PAY