#### **BEFORE**

## MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION, SHILLONG

PETITION FOR

## APPROVAL OF CAPITAL COST

**AND** 

TRUING UP OF FY 2013-14 AND, PROVISIONAL TRUING UP OF FY 2014-15

**AND** 

APPROVAL OF ANNUAL FIXED CHARGES AND GENERATION TARIFF

**FOR** 

MYT CONTROL PERIOD FY 2015-16 TO FY 2017-18

OF

MYNTDU LESHKA HYDRO ELECTRIC PROJECT (MLHEP)

Filed By



Meghalaya Power Generation Corporation Ltd.

Lum Jingshai, Short Round Road, Shillong - 793 001

BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

FILE / PETITION NO:	
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IN THE MATTER OF

TRUE UP OF FY 2013-14 AND PROVISIONAL TRUE UP OF FY 2014-15 AND APPROVAL OF CAPITAL COST AND ANNUAL REVENUE REQUIREMENT (ARR) FOR MYNDTU LESHKA HYDRO ELECTRIC PROJECT (MLHEP) OF THE MEGHALAYA POWER GENERATION CORPORATION LIMITED (MePGCL) WITHIN THE STATE OF MEGHALAYA FOR THE FY 2015-16, 2016-17 & 2017-18 UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS FOR DETERMINATION OF TARIFF) REGULATIONS, 2011 AND THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2014 AND UNDER SECTION-62 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

AND IN THE MATTER OF

MEGHALAYA POWER GENERATION CORPORATION LIMITED, SHORT ROUND ROAD, LUMJINGSHAI, SHILLONG – 793001, MEGHALAYA

**PETITIONER** 

#### IT IS RESPECTFULLY SUBMITTED BY THE PETITIONER THAT:

- 1. In exercising its powers conferred under the section 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010" on 31st March 2010 (Annexure I (a)) leading to restructuring and unbundling of erstwhile Meghalaya State Electricity Board (MeSEB) into four entities namely
  - a. Meghalaya Energy Corporation Limited (MeECL): the Holding Company;

- b. Meghalaya Power Distribution Corporation Limited (MePDCL): the Distribution Utility;
- c. Meghalaya Power Generation Corporation Limited (MePGCL): the Generation Utility;
- d. Meghalaya Power Transmission Corporation Limited (MePTCL): the Transmission Utility.
- 2. However, the holding company MeECL carried out the functions of distribution, generation and transmission utilities from 1st April 2010 onwards, even after restructuring. Therefore, through notification dated 31st March 2012 (Annexure I (b)) the State Government notified an amendment to The Power Sector Reforms Transfer Scheme leading to effective unbundling of MeECL into MeECL (Holding Company), MePDCL (Distribution Utility), MePGCL (Generation utility) and MePTCL (Transmission Utility) from 1st April 2012.
- 3. On 23rd December 2013, the Government of Meghalaya issued the transfer scheme notifying the Assets and Liabilities as on 1st April 2010 to be vested in MeECL. Subsequently, the Government of Meghalaya has notified the 4th Amendment to the Transfer Scheme on 29th April 2015 (Annexure I (c)) wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.
- 4. MePGCL has begun segregated commercial operations as an independent entity from 1st April 2013 onwards.
- 5. The Meghalaya State Electricity Regulatory Commission (hereinafter referred to as "MSERC" or "the Hon'ble Commission") is an independent statutory body constituted under the provisions of Part X (Sections 76 to 109) of the Electricity Act, 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.
- 6. The MSERC, in exercise of its powers, has determined the Provisional Annual Fixed Charges (AFC) for Myndtu Leshka Hydro Electric Plant (hereinafter referred to as 'MLHEP') for FY 2013-14 and FY 2014-15 in accordance with Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011.

- 7. In the present petition, truing up of FY 2013-14 & FY 2014-15 has been prepared in accordance with The Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011, (hereinafter referred to as "Tariff Regulations, 2011") and that for approval of Capital Cost and AFC for the Control Period (FY2015-16 to FY2017-18) has been prepared in accordance with the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 (hereinafter referred to as "MYT Regulations, 2014") which have been notified by the Hon'ble Commission on 25<sup>th</sup> September 2014.
- 8. The first provisional tariff order of MLHEP for FY 2013-14 was passed by the Hon'ble Commission on 30<sup>th</sup> March 2013. Thereafter the Hon'ble Commission again passed provisional tariff order on 10<sup>th</sup> April 2014. Subsequently, the Hon'ble Commission in its orders dated dated 30<sup>th</sup> March 2015 (for FY 2015-16) and 30<sup>th</sup> March 2016 (for FY 2016-17) continued with the extension of the provisional tariff of Leshka.
- 9. While filing the present petition, MePGCL, to the best of its ability, has endeavored to discharge its obligations and comply with the various applicable legal and regulatory provisions, directions and stipulations.
- 10. The Board of Directors of MePGCL have accorded approval for the capital cost and ARR of MLHEP for FY2015-16, FY 2016-17 and FY 2017-18 and authorized the undersigned to file this petition accordingly. The copy of the Board's resolution is hereby enclosed as **Annexure-II**
- 11. It is further submitted that, Joshi & Associates has been appointed as Statutory Auditor of MePDCL, M/s A Paul & Co has been appointed as Statutory Auditor of MePTCL, MePGCL, and M/s Amit O P Sharma & Associates has been appointed as Statutory Auditor of MeECL. The firms are chartered Accountancy firms, appointed as Statutory Auditors for the FY 2013-14 by Comptroller & Auditor General of India (C&AG). M/s Kiron Joshi & Associates, M/s A Paul & Co. and M/s Amit O P Sharma & Associates have audited the Annual Accounts of MePDCL, MePTCL & MePGCL and MeECL, respectively for FY 2013-14 under the Companies Act, 1956.
- 12. The audited statement of accounts of MePGCL, for FY 2013-14 and provisional statement of accounts of MePGCL for FY 2014-15 are appended as **Annexure III** and **Annexure IV** respectively.

The applicant, therefore, humbly prays before the Hon'ble Commission to be pleased to:

- a. Approve the total completion cost of MLHEP at Rs. 1286.74 Crore as on 31st March 2016.
- b. Approve the true up amounts of Rs. 104.67 Crore and Rs. 115.45 Crore for FY 2013-14 & FY 2014-15 respectively as proposed in this Petition for MLHEP.
- c. Approve the Annual Fixed Charges of Rs. 224.68 Crore, Rs. 219.64 Crore and Rs. 224.35 Crore for FY 2015-16, FY 2016-17 and FY 2017-18 (1st MYT Control Period) respectively as proposed in this petition for MLHEP.
- d. To pass such orders, as the Hon'ble Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.
- e. To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submissions as required.

(AMBERLIGHT LYNGDOH)

SUPERINTENDING ENGINEER

(PROJECT & MONITORING)

FOR AND ON BEHALF OF

MEGHALAYA POWER GENERATION CORPORATION LIMITED

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## 1. Background

#### 1.1. Introduction

The Power Supply Industry in Meghalaya had been under the control of the erstwhile Meghalaya State Electricity Board (MeSEB) with effect from 21st January 1975. On 31st March 2010, the State Government issued a Notification "The Meghalaya Power Sector Reforms Transfer Scheme 2010" thereby giving effect to the transfer of assets, properties, rights, liabilities, obligations, proceedings and personnel of the erstwhile MeSEB to four successor companies. On 31st March 2012, the Government of Meghalaya issued further amendment to the above mentioned transfer scheme, to transfer Assets and Liabilities including all rights, obligations and contingencies with effect from 1st April, 2012 to, namely:

- Generation: Meghalaya Power Generation Corporation Ltd. (MePGCL)
- Transmission: Meghalaya Power Transmission Corporation Ltd. (MePTCL)
- Distribution: Meghalaya Power Distribution Corporation Ltd. (MePDCL)
- Meghalaya Energy Corporation Limited (MeECL), a holding company.

The Government of Meghalaya has notified the 4th Amendment to the Notified Transfer Scheme dated 31st March 2010 on 29th April 2015, wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.

The MSERC is an independent statutory body constituted under the provisions of the Electricity Regulatory Commissions (ERC) Act, 1998, which was superseded by the Electricity Act (EA), 2003. The Hon'ble Commission is vested with the authority of regulating the power sector in the State, inter alia, including determination of tariff for electricity consumers.

#### 1.2. Provisions of Law

The Hon'ble Commission has notified the MYT Regulations, 2014 on 25<sup>th</sup> September, 2014. As per Regulation 3, 4 & 7 of the MYT Regulations, 2014, the Hon'ble Commission will determine ARR for the Generation Company under Multi Year Tariff framework from 1st April, 2015 onwards. The relevant regulations are reproduced below for reference:

#### "3 Scope of Regulation

- 3.1 The Commission shall determine tariff within the Multi-Year Tariff framework, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:
  - i. Supply of electricity by a Generating Company to a Distribution Licensee:

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

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

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

Provided further that where the Commission has allowed open access to certain consumers under sub-section (2) of Section 42 of the Act, the Commission shall determine the wheeling charges, cross subsidy surcharge, additional surcharges and other open access related charges in accordance with these regulations and MSERC (Terms and Conditions of Open Access) Regulations 2012 as applicable and as amended through Orders issued by the Commission from time to time

The Commission may also determine the rate at which the Distribution Licensee can supply power to other Distribution Licensees in the State.

- 3.3 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government pursuant to Section 63 of the Act.
- 3.4 These regulations shall not apply to renewable sources of energy which shall be governed by separate regulations of the Commission.

.....

#### 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:

••••

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#### 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 & 41 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 30<sup>th</sup>November each year to the Commission and in compliance with the principles for determination of ARR as specified in these Regulations, in such formats and at such time as may be prescribed by the Commission from time to time. The filing of truing up of petitions prior to MYT period shall be done in the manner and at such time as may be decided by the Commission.
- 6.2 The filing of MYT Petition for the Control Period under these Regulations shall be as under:

- a) MYT Petition shall comprise of:
- i. Multi-year Aggregate Revenue Requirement for the entire Control Period with year-wise details;
- ii. Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the first year of the Control Period under these Regulations.
- iii. Application for determination of tariff for first year of the Control Period.

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#### 41 Petition for determination of generation tariff

41.1 A Generating Company is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of Chapter 2 of these Regulations.

• • • •

- 41.6 A Generating Company shall file a fresh Petition in accordance with these Regulations, for determination of final tariff based on actual capital expenditure incurred up to the date of commercial operation of the Generating Station duly certified by the statutory auditors based on Annual Audited Accounts.
- 41.7 Any difference in provisional tariff and the final tariff determined by the Commission and not attributable to the Generating Company may be adjusted at the time of determination of final tariff for the following year as directed by the Commission."

As per Regulation 8 of the MYT Regulations, 2014, MePGCL has to file a Business Plan for the control period of FY 2015-16 to FY 2017-18. The relevant regulation is reproduced below:

#### "8 Business Plan

8.1 The Generating Company, Transmission licensee, and Distribution Licensee for Distribution Business, shall file a Business Plan for the Control Period of three (3) financial years from 1st April 2015 to 31st March2018, which shall comprise but not be limited to detailed categorywise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets, in accordance with guidelines and formats, as may be prescribed by the Commission from time to time:

Provided that a mid-term review of the Business Plan/Petition may be sought by the Generating Company, Transmission Licensee and Distribution Licensee through an application filed three (3) months prior

to the specified date of filing of Petition for truing up for the second year of the Control Period and tariff determination for the third year of the Control Period.

- 8.2 The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond the Control Period. The Commission shall consider and approve the capital investment plan for which the Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Business, may be required to provide relevant technical and commercial details.
- 8.3 The Distribution Licensee shall project the power purchase requirement based on the Merit Order Dispatch principles of all Generating Stations considered for power purchase, the Quantum of Renewable Purchase Obligation (RPO) under Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and Compliance) Regulations, 2010 and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes.
- 8.4 The Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Business, shall get the Business Plan approved by the Commission.

···

Since the MSERC MYT Regulations are applicable for the determination of tariff effective from 1<sup>st</sup> April 2015, the true up of FY 2013-14 and FY 2014-15 have been done on accordance with the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011 notified on 10<sup>th</sup> February 2011 (hereinafter referred as "Tariff Regulations, 2011"). These Regulations provide the framework under which the licensees shall operate. Accordingly, the key provisions for true up under the said Regulations are reproduced below for reference:

#### "15. Review and Truing-Up

(1).....

(2) After Audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the Audited accounts. This exercise with reference to Audited accounts shall be called 'truing-up'.

(3) The generating company or the licensee, as the case may be, shall make an application before the Commission, for 'truing up' of ARR of the previous year by 30<sup>th</sup> September of the following year, on the basis of Audited statement of accounts and the Audit Report, thereon. The generating company or the licensee shall get their accounts Audited within a specified time frame, either by the Comptroller & Auditor General of India or by a Statutory Auditor drawn from the panel of Statutory Auditors approved by the Comptroller & Auditor General of India, from time to time, to enable them to file the application for 'truing up' within the specified date, that is 30th September of the following year."

#### "13. Sharing of Profits and Losses

13. 1 The Commission shall -

(1) cause the generating company or the licensee, as the case may be, to pass on 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, to Consumers, by adjustment in the next years ARR and consequential distribution tariff rates; (2) allow the generating company or the licensee to retain 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, for their organization; and (3) cause the generating company or licensee as the case may be to deposit the remaining 30 percent of such profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, into a Contingency Reserve Fund which should be operated in a manner specified by the Commission for such purpose. No amount from such contingency reserve fund may be drawn without the prior written approval of the Commission, which may be granted on the arising of such contingency conditions as may be specified by the Commission, through issue of suitable guidelines for such purpose; 13.2 The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time, unless it can satisfy the Commission that such losses were incurred after complying with the provisions of these regulations and such Orders as may have been passed by the Commission, for reason which are well beyond normal human control."

## 1.3. Submissions before the Honourable Commission

MePGCL hereby submits the petition under section 61, 62(a) of the Electricity Act, 2003 and the MSERC Tariff Regulations, 2011 and the MSERC MYT Regulations, 2014 as amended from time to time for approval of Capital cost, True up of FY 2013-14, Provisional true up of FY 2014-15, ARR and Tariff of MLHEP for the control period of FY 2015-16 to FY 2017-18.

## 2. Capital Cost and Technical Parameters

## 2.1. Capital Cost of MLHEP

The Units I & II of Myntdu Leshka Hydro Electric Plant (MLHEP) was Commissioned on 1<sup>st</sup> April 2012 and subsequently, the Unit III was commissioned on 1<sup>st</sup> April 2013. The declaration regarding the same, from the Office of the Director (Generation), MePGCL has been annexed as **Annexure** – **V**. The Regulation 52 of the MYT Regulations, 2014 defines the capital cost of a Hydro Power Generating Station. Relevant sections of the regulation are reproduced below for ready reference:

### "52. Capital cost

52.1 The actual capital expenditure on the date of commercial operation in the case of new investment shall be subject to prudence check by the commission.

52.2 Scrutiny of cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financial plan, and interest during construction period, use of efficient technology, and such other matters for determination of tariff.

....

52.6 The project cost already admitted by the Commission for purpose of tariff determination shall be considered as the original project cost.

52.7 The Commission shall issue guidelines for:

a. Verifying the capital cost of Hydroelectric projects by an independent agency or expert and in such a case, the capital cost as vetted by such agency or expert may be considered by Commission after prudence check while determining the tariff for hydro generating station."

It is submitted that in the Tariff Order dated 30<sup>th</sup> March, 2013, the Hon'ble Commission had approved the AFC of MLHEP on provisional basis. However, Hon'ble Commission has not approved the project cost of MLHEP.

The direction of the Hon'ble Commission in the Tariff Order dated 30<sup>th</sup> March, 2013 (Page - 84) is produced here for reference:

"Accordingly the Commission is directing MePGCL the following:

- (i) To request to the State Government to constitute an expert committee for examining the cost of the project and take necessary steps to get the approval of CEA after completing the COD of all three units.
- (ii) To file a tariff petition to determine final tariff for Leshka project after COD is achieved in accordance with CERC Regulations.
- (iii)The filing should be based on audited accounts of expenditures incurred on Leshka Project."

"Considering the financial commitments of MePGCL towards repayment of loans along with interest of PFC and GoM, the Commission is allowing an interim tariff of Rs. 2.83/kWh on the basis of normative standards. SLDC charges of Rs.0.5 crores shall be payable by MePGCL to SLDC. This amount shall be recovered from MePDCL separately. This in an interim arrangement till such time final determination of tariff is completed with due public consultation. This tariff shall give MePGCL Rs.135.54 crores in 2013-14 subject to condition that it generates designed energy in 2013-14 and units are available for generation. This interim tariff is allowed for 2013-14 subject to validation after application of final tariff is received. The Commission has already taken a view that without audit records, the Commission is allowing the same ROE as allowed last year to be allotted equally to each company in the State. To enable the MePGCL to ensure that its financial commitments are met, MePDCL is also directed to release the payments against the fixed charges of Rs.67.77 crores distributed equally in 12 monthly instalments provided units are available for generation subject to verification by SLDC. Energy charges shall be paid at the rates approved in table 18 @Rs.1.415/unit for the actual energy generated from MLHEP units on monthly basis. Any adjustment on account of final tariff to be determined by the Commission on the petition of MePGCL after approval of the capital cost by CEA shall be made thereafter."

It is further submitted that as directed by the Hon'ble Commission in the Tariff Order dated 30<sup>th</sup> March, 2013, MePGCL had approached the Central Electricity Authority (CEA) and requested the State Government to set up a technical committee, for vetting of the completion cost of MLHEP. However the Central Electricity Authority (CEA) cited that as per Electricity Act 2003, the tariff of the project is decided by the regulatory commission, and therefore CEA has no mandate of vetting revised Cost estimate and advised MePGCL to

approach the Hon'ble Commission for vetting the same. As requested by MePGCL, the State Government of Meghalaya has formed the State level technical committee for review of the project cost.

The Government of Meghalaya vide its letter No. PE -85/2008/84 dated: 28th November, 2013 constituted the Technical Committee for submission of final reports on completion cost of MLHEP stating the terms of reference for the committee.

The notification from the Government of Meghalaya is appended as **Annexure-VI** 

The Hon'ble Commission in the Tariff Order dated 10th April, 2014, gave an interim order provisionally approving the ARR, same as that for FY 2013-14. The statement of the Hon'ble Commission is reproduced below for reference:

"17. MePGCL has prayed that the Commission approve the completion cost of the MLHEP at Rs 1286.53 crores. Commission has made its stand known that it is not within its ambit to approve or vet the cost of the project as it also involves factors relating to hydrological and other technical aspects apart from financial consideration as a whole. This matter concerning the completion cost has been discussed in para 15 above and Commission will only await the Technical Expert Committee's report and examine if any further information or data is required. To simply approve it for Rs 1286.53 crores as prayed for will be an empty formality with no factual or legal ground. For the present, the ARR is provisionally accepted for Rs 135.54 crores, same as that for 2013-14, which will include Rs.67.77 crores as fixed charges and Rs.1.415 per unit as energy charges. The fixed charges shall be paid by MePDCL in twelve monthly installments provided that machines are available for generation. Similarly, energy charges shall be paid on actual generation.

18. This order is ad interim. The Commission will take a final view when the report of the independent expert panel and the audited accounts are made available and if necessary, suitable modifications will be made."

The convener of the Technical committee has submitted the report vide letter dated: 23<sup>rd</sup> Feb, 2015 and the abstract of the findings of the same are produced below:

I. The main Project components were generally executed as per construction drawings received from Central Water Commission and Central Electricity Authority.

- II. The realization of the impact of acidity of water and the preventive measures adopted were in line with the recommendations of authorities like Central Soil and Materials Research Station (CSMRS) and other authorized consultants.
- III. The payments have been made as per conditions of agreement and sanctions accorded by the competent authorities of the project.
- IV. The project work actually started in 2005 and completed in 2012. Thus it took seven years instead of scheduled 5 years. Extended rainy season in the Project area, poor geology, addition of one more unit and the unprecedented floods of 2009 and 2010 are the major reasons to justify the marginal time overrun.
- V. The road network of almost 44km in the Project area is more or less as per prior projection and has been laid well in the difficult hilly terrain. The stipulated specification has been adhered to and has been done in reasonable rates.
- VI. The specifications and the cost incurred for buildings are not as per the prior projection. This is understood as many buildings were constructed only for the construction phase of the Project and are makeshift in nature. However, the preparation for buildings in the steep terrain was costly as many slope protection walls had to be constructed and these added to the cost.
- VII. The afforestation work under the catchment treatment plan did not go well because of rocky landscape. The survival rates of planted trees are not satisfactory. The afforestation in the catchment will continue till 2018.
- VIII. In totality, no intentional wrong doings could be detected in the perused documents and the completion cost of Rs 1286.53 Crore seems to be justified. The Cost/MW came to be Rs 10.20 Crore which is reasonable against the difficult backdrop of the project execution. Rs 10.20 Crore per MW cost can be compared with the other hydroelectric projects of the region.
  - IX. Adequate planning and better construction and financial management would have resulted in some savings.

The report of the Technical committee is appended as **Annexure –VII** together with the letter conveying the concurrence of the state Govt. to the report.

The summary of the reports of the committee is as follows:

#### A. IIT Roorkee

- 1) As mentioned in the report, the project took seven years to complete, started in the year 2005 and completed in 2012. Considering the climatic condition (extended rainy season), poor geology, floods of 2009 and 2010, addition of third Unit in the project in 2008, additional measures adopted to resist the acidic nature of the river water at a later stage, the delay in completion may be accepted. Such delays are normal in projects in Himalayas due to its complex geology and occurrence of flash floods.
- 2) The cost of completion has increased from the revised estimate cost (2006) of project. This increase is due to increase in cost of work (hard cost), due to escalation and IDC. It is seen that hard cost increase is due to poor geological conditions encountered during execution, due to change in design for the addition of III Unit, due to the measures required to mitigate the effect of acidic nature of river water and inadequate or no provision for works which were later found necessary to complete the work.
- 3) This per MW cost shall be favourably viewed for the conditions under which the project is constructed such as:
  - i. The climatic condition (Extended rainy seasons of eight months)
  - ii. Poor Geology
  - iii. Unprecedented Floods of 2009 and 2010
  - iv. Addition of third Unit in the Project in 2008
  - v. Additional measures adopted to resist acidity of the water.
  - vi. Remoteness and backwardness of the area.

In view of these factors, the cost of Rs. 10.27 Crores per MW at the present price index appears reasonable.

The detailed report on Cost verification of MLHEP is appended as **Annexure-VIII.** 

#### B. PWD (Road & Bldg.)

1) The report of the PWD (Road) Govt. of Meghalaya, states that the work has been laid well in difficult hilly terrain within a reasonable rate.

2) The report of the PWD (Bldg.) Govt. of Meghalaya states that the construction of building was not as per prior projection, however the difference in cost between the rate adopted at site and the PWD (B) SOR prevailing during issue of Work Order is reasonably within limit. The plinth area rate is 31.66% lower than that of PWD rates. This is due to the temporary nature of the Buildings.

The report of the Chief Engineer, PWD (Roads), Govt. of Meghalaya, vide Letter No. PW/TB/RD/13/2013/22 dated: 29<sup>th</sup> Oct, 2014 and the report of the Chief Engineer (C), PWD (Buildings) Govt. of Meghalaya, for completion Cost of Building Works of MLHEP vide letter No. PW/SE/D8/2006/126 dated: 28<sup>th</sup> Jan, 2015 are appended as **Annexure-IX & X** respectively.

#### C. Forest Dept.

1) The Chief Conservator of Forests, Govt. of Meghalaya stated that the survival of the saplings under afforestation work in the barren catchment area appears to be poor due to rocky landscape and shifting cultivation and the resultant fire.

The report from the Chief Conservator of Forests-in-charge (M&E) is appended as **Annexure – XI.** 

On the basis of the above report, the MePGCL would like to place the following observations:

- 1. It can be concluded that the project was delayed due to rains, poor geology, floods, addition of third unit and the acidic nature of the water.
- 2. The cost is reasonable and comparable with other Projects recently completed or going to be completed.
- 3. There was no major fault and irregularities found by the Technical Committee.
- 4. Units I and II were commissioned on 1st April 2012 and subsequently, the third unit of the project was finally commissioned on 1st April 2013.

It is therefore prayed before the Hon'ble Commission to accept the capital cost of the project as given below:

Table 1: Audited Project Cost of 3 x 42MW MLHEP as on 31st March, 2013

Sl. No.	Particulars	GFA as on 31.3.2013	CWIP (as on 31.03.2013)	Capital Cost (as on 01.04.2013)
		(INR Crore)	(INR Crore)	(INR Crore)
1	Land	15.54	-	15.54
2	Buildings	91.52	52.27	143.79
3	Hydraulic Works	590.14	29.89	620.03

4	Other Civil works	114.10	ı	114.10
5	Plant & Machinery	325.77	19.05	344.82
6	Lines & cables	4.32	ı	4.32
7	Vehicles	0.24	ı	0.24
8	Furniture	0.04	ı	0.04
9	Office Equipment	0.16	ı	0.16
	Total	1141.83	101,21	1243.04

Table 2: Audited Project Cost of 3X42MW MLHEP as on 31st March, 2014

Sl. No.	Particulars	GFA as on 31.3.2014	CWIP (as on 31.03.2014)	Total (as on 31.3.2014)	Rebates/ Discount (as on 31.03.2014)	GFA (as on 01.04.2014)
	* 1	(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	28.75	-	28.75	-	28.75
2	Buildings	146.43	-	146.43	-	146.43
3	Hydraulic Works	634.26	-	634.26	11.24	623.02
4	Other Civil works	117.43	-	117.43	-	117.43
5	Plant & Machinery	365.09	-	365.09	-	365.09
6	Lines & cables	4.57	-	4.57	-	4.57
7	Vehicles	0.24	-	0.24	-	0.24
8	Furniture	0.08	-	0.08	-	0.08
9	Office Equipment	0.18	-	0.18	-	0.18
	Total	1297.02	0.00	1297.02	11.24	1285.78

Table 3: Audited Project Cost of MLHEP 3X42 MW as on 31st March, 2015

S.l No	Particulars	GFA as on 31.03.2015	CWIP (as on 31.03.2015)	Rebates/ Discount (as on 31.03.2015)	GFA (as on 01.04.2015)
		(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	28.79	-	-	28.79
2	Buildings	146.46	-	-	146.46
3	Hydraulic Works	623.10	-	ı	623.10
4	Other Civil works	117.57	-	-	117.57
5	Plant & Machinery	365.16	-	ı	365.16
6	Lines & cables	4.57	-	ı	4.57
7	Vehicles	0.24	-	-	0.24
8	Furniture	0.08	-	-	0.08
9	Office Equipment	0.18	-	-	0.18
	Total	1286.13	0.00	0.00	1286.13

Table 4: Audited Project Cost of MLHEP 3X42 MW as on 31st March, 2016

S.l No	Particulars	GFA (as on 31.03.3016)	CWIP (as on 31.03.3016)	Rebates/Discount (as on 31.03.2016)	Assets Values (as on 31.03.2016)
		(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	23.90	0.00	0.00	23.90
2	Buildings	146.68	0.00	0.00	146.68
3	Hydraulic Works	623.60	0.00	0.00	623.60
4	Other Civil works	122.70	0.00	0.00	122.70
5	Plant & Machinery	364.57	0.00	0.00	364.57

	Total	1286.74	0.00	0.00	1286.74
9	Office Equipment	0.18	0.00	0.00	0.18
8	Furniture	0.08	0.00	0.00	0.08
7	Vehicles	0.46	0.00	0.00	0.46
6	Lines & cables	4.57	0.00	0.00	4.57

MePGCL submits before the Hon'ble Commission to kindly approve the capital cost of Myndtu Leshka HEP as Rs 1286.74 Crore as on 1<sup>st</sup> April 2016 as duly certified by the statutory auditors. The Auditors' Certificate of capital cost of MLHEP is appended as **Annexure – XII**.

## 2.2. Additional Capitalization

The regulation 29 of the MYT Regulations, 2014 provides for additional capitalization as reproduced below:

#### "29 Additional Capitalization

29.1 The following capital expenditure, actually incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to the prudence check:

- a) Due to Un-discharged liabilities within the original scope of work;
- b) On works within the original scope of work, deferred for execution;
- c) To meet award of arbitration and compliance of final and unappealable order or decree of a court arising out of original scope of works;
- d) On account of change in law;
- e) On procurement of initial spares included in the original project costs subject to the ceiling norm specified;
- f) Any additional works/services, which have become necessary for efficient and successful operation of a generating station or a transmission system or a distribution system but not included in the original capital cost:

Provided that original scope of work along with estimates of expenditure shall be submitted as a part of Business Plan: Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating Unit/Station or transmission system or

distribution system. Provided further that the assets forming part of the project but not put to use, shall not be considered."

Therefore, as per the regulation, the works which are within the original scope of works but deferred for execution and works due to un-discharged liabilities within the original scope of work, will form the part of additional capitalization.

As per the details of capital cost submitted in the above section, MePGCL has incurred an additional capitalization **of Rs. 43.70 Crore**, over the years FY 2013-14 to FY 2015-16, mainly on account of un-discharged liabilities and deferred works. MePGCL prays before the Hon 'ble Commission to allow this amount as additional capitalization and claim this amount within total capital cost.

## 2.3. Funding Pattern of MLHEP

The Myntdu Leshka HEP has been funded by a mix of Loans and Equity as elaborated below.

#### Loans

Till date, MePGCL has availed loans for a sum of Rs. 801.24 Crore for the construction of the MLHEP from various sources and has also planned for availing an additional loan of Rs. 99.48 Crore as tabulated below:

Table 5: Loan details of MLHEP

Source	Amount (INR Crore)
Rural Electrification Corporation (REC)	253.04
Power Finance Corporation (PFC)	240.20
BSE Bonds	170.00
Central Bank of India	75.00
Federal Bank of India	50.00
State Government Loan	13.00
Total Loans availed till date for MLHEP	801.24
Total Loan Eligibility as per Regulations (70% of Capital Cost)	900.72
Additional Loan to be availed for MLHEP	99.48

This additional loan is to be availed by end of FY 2016-17 from Rural Electrification Corporation (REC) at the existing card rate for such loans which is 12.50%.

The details of disbursement schedules of the above mentioned loans along with the respective interest rates of each tranche have been provided as per Format 7 and Annexure - XIII.

#### **Equity**

The Govt. of Meghalaya has infused an amount of Rs. 323.57 Crore of Equity for MLHEP vide various notifications which have been provided as **Annexure** – **XIII**. Another amount of Rs. 62.45 Crore is in the process of infusion as equity at the beginning of FY 2017-18 and thus, the total equity capital for the project would stand at Rs. 386.02 Crore which is 30% of the final project cost and is commensurate with the provisions of the MSERC MYT Regulations, 2014.

Therefore, the funding pattern of MLHEP can be summarized as below:

Table 6: Funding Pattern of MLHEP

Source	Amount (INR Crore)	% of Total Project Cost
Loans		
Availed	801.24	
To be Availed	99.48	
Total Loans (A)	900.72	70%
Equity		
Infused	323.57	
To be Infused	62.45	
Total Equity (B)	386.02	30%
Total Project Cost (A) + (B)	1286.74	100%

MePGCL prays before the Honorable Commission to kindly approve the funding pattern for MLHEP as shown above.

## 2.4. Operational Norms and Design Energy

#### **Norms of Operation**

The Regulation 58 of the MYT Regulations, 2014 provides the norms for operation of Hydro Generating stations. The regulation is reproduced below for ready reference:

"58 Norms of operation

The norms of operation shall be as under:

- 58.1 Normative annual plant availability factor (NAPAF)
- (a) Storage and pondage type plants where plant availability is not affected by silt and
- (ii) with head variation between FRL and MDDL of more than 8% = (Head at MDDL/Rated Head) x 0.5+0.2

- (b) Pondage type plant where plant availability is significantly affected by silt....85%
- (c) Run -of- River type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available /relevant.

#### Note:

- (i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.
- (ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.
- (iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.

#### 58.2 Auxiliary energy consumption:

- (a) Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft ..................0.7% of energy generated.
- (c) Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft ....0.9% of energy generated.

#### 58.3 Transformation losses

From generation voltage to transmission voltage .....o.5% of energy generated."

The features of the MLHEP in terms of type of plant, type of excitation etc. are provided in the table below:

Table 7: Features of Myndtu Leshka

Sr. No.	Particulars	Leshka
1	Type of Station	
а	Surface/ Underground	SURFACE
b	Purely ROR/ Pondage/ Storage	ROR
С	Peaking/Non Peaking	NON PEAKING
d	No. of hours Peaking	NA
e	Overload Capacity (MW) & Period	NIL
2	Type of Excitation	
а	Rotating exciters on Generator	Nil
b	Static excitation	Static type

#### **Design Energy**

In the Tariff Order dated 30<sup>th</sup> March, 2013, the Hon'ble Commission had approved the design energy of MLHEP as 486.23 MUs. It is submitted that for FY 2017-18 the same Design Energy shall be adopted for computation of Energy charge. The month-wise and station wise design energy is provided in the Format HG3.

Computation of NAPAF for Run of River type plants: As per Regulation 58 (1) (c) of the MYT Regulations, 2014, the NAPAF for Run of River type plants is to be determined based on 10-day design energy data, moderated by past experience wherever relevant. Therefore, based on the past records and as per norm given in regulation, the NAPAF for MLHEP works out to be 44%. Further as per Regulation 58 of the MYT Regulations, 2014, after considering further allowance of 5% for difficulties in North East Region, the NAPAF for MLHEP is proposed as 39%.

Net Generation for FY 2012-13 (Actual), FY 2013-14 (Actual) and FY 2014-15 (Actual) and FY 2015-16 (Actual), FY 2016-17 (Projected) and FY 2017-18 (Projected) are provided in the table below:

Table 8: Generation from MLHEP

Tuble of Constation from Marian				
Year	Gross Generation (MU)	Normative Aux Cons @ 1% of Energy Generated (MU)	Normative Transformation Loss @ 0.50% of Energy Generated (MU)	Net Generation (MU)
FY 2013-14	413.30	4.13	2.07	407.10
FY 2014-15	409.38	4.09	2.05	403.24
FY 2015-16	445.90	4.46	2.23	439.21
FY 2016-17	438.83	4.39	2.19	432.25
FY 2017-18	450.00	4.50	2.25	443.25

It is submitted that the above figures of gross generation are actual figures for FY 2013-14, FY 2014-15 and FY 2015-16. The figures of FY 2016-17 are estimated based on the actual figures till October 2016 (402.90 MUs). The figures of FY 2017-18 are projected based on the past years' data.

MePGCL submits before the Hon'ble Commission to kindly approve the net generation from the project as provided in table above for MLHEP.

# 3. True up of FY 2013-14 and Provisional True up of FY 2014-15

## 3.1. Components of Tariff

The Regulation 52 of the MSERC Tariff Regulations, 2011, provides the Components of tariff for MePGCL. The relevant regulation is reproduced below for ready reference:

#### "52 Components of tariff

52.1 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.

52.2 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.

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

Based on above provisions, MePGCL computes and provides hereunder, the various cost elements for determination of tariff.

## 3.2. Gross Fixed Assets

The closing GFA for each year is worked out considering actual capitalization during FY 2012-13, FY 2013-14 based on the auditor's certificate for each year.

Table 9: Gross Fixed Asset Details

Particulars	FY 2013-14 (Actual in INR Crore)	FY 2014-15 (Actual in INR Crore)	
Opening GFA (INR Cr)	1,141.83	1,285.78	
Additions during the year (INR Cr)	155.19	0.35	

Less: Discount Received (INR Cr)	11.24	-
Closing GFA (INR Cr)	1,285.78	1,286.13

MePGCL submits before the Hon'ble Commission to kindly approve Gross Fixed Assets for MLHEP as submitted in the above table.

## 3.3. Computation of Return on Equity

The relevant regulations for determination of equity capital and the computation of return on equity are extracted for reference as below:

#### "51. Debt-equity ratio

- 1) For the purpose of determination of tariff, debt-equity ratio in the case of a new generating station commencing commercial operations after the notification of these regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered.
- 2) In the case of existing generating stations the debt equity ratio as per the Balance Sheet on the date of the Transfer notification will be the debt equity ratio for the first year of operation, subject to such modification as may be found necessary upon audit of the accounts if such Balance Sheet is not audited.
- 3) The debt and equity amounts arrived at in accordance with clause (1) above shall be used for calculating interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.
- 4) Any expenditure incurred or projected to be incurred after notification of these Regulations as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be served on the manner indicated in sub-regulation (1) above."

## "53. Return on Equity

1) Return on equity shall be computed on the equity base determined in accordance with regulation 51 and shall not exceed 14 %.

Provided that incase if projects commissioned after notification of these Regulations an additional return of 0.5 % shall be allowed if such projects are completed within the time

line specified in CERC Tariff Regulations, 2009. Provided that in case of projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any time or cost overrun, whatsoever.

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

- 2) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.
- 3) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.
- 4) Foreign equity will also attract the same rate of return."

Based on the audited total capital cost in FY 2013 and FY 2014-15, the normative debt-equity component for MLHEP is calculated in the table below.

Table 10: Debt Equity of MLHEP as per Project Cost

Particulars	FY 2013-14 (INR Cr)	FY 2014-15 (INR Cr)
Total Project Completion Cost (Audited)	1,285.78	1,286.13
Equity Component (30%)	385.73	385.84
Debt Component (70%)	900.05	900.29

However, in accordance with the above regulations, since the actual infused equity is Rs. 323.57 Crore, which is less than 30% of the project cost, the actual equity is considered for Return on Equity calculation.

The Return on Equity for the project for FY 2013-14 and FY 2014-15 is as computed below:

Table 11 Return on Equity Computation

Particulars	FY 2013-14	FY 2014-15
Opening Equity (INR Crore)	323.57	323.57
Additions during the year (INR Crore)	-	-
Closing Equity (INR Crore)	323.57	323.57
Equity Considered for RoE (INR Crore)	323.57	323.57
RoE % (Rs. Cr)	14%	14%
RoE (INR Crore)	45.30	45.30

MePGCL submits before the Hon'ble Commission to kindly approve the amounts computed above as RoE for both FY 2013-14, FY 2014-15 for Myndtu Leshka HEP.

## 3.4. Interest and Finance Charges

The relevant regulations as per MSERC Tariff Regulations, 2011 are reproduced below:

- "54. Interest and finance charges on loan capital
- 54 (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 prevailing therein. Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with Regulation 51.
- 54 (2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.
- 54(3) The generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.
- 54 (4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the generating company in a ratio as may be specified by the Commission as envisaged in Regulation 13.2.
- 54 (5) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly."

The various loans availed by MePGCL for the execution of MLHEP have been detailed out in Section 2.3 above. The Interest on loan obligations as per the actuals for FY 2013-14 and FY 2014-15 is given in the table below:

Table 12: Computation of Interest on Loan-MLHEP

Particulars	FY 2013-14	FY 2014-15
Opening Balance (INR Cr)	715.92	765.65
Addition During the Year (INR Cr)	71.89	-
Repayment During the Year (INR Cr)	22.16	35.45
Closing Balance (INR Cr)	765.65	730.20
Interest on Loan (INR Cr)	82.78	88.85

The loan details and Interest calculations are provided in Format -7.

MePGCL submits before the Hon'ble Commission to kindly approve the amounts computed above as Interest on Loan for FY 2013-14 and FY 2014-15 for MLHEP.

### 3.5. Operation and Maintenance Expenses

The Regulation 55 of MSERC Tariff Regulations, 2011 provides for Operation and Maintenance Expenses reproduced as under:

"55. Operation and Maintenance Expenses

- 55 (1) Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -
- (a) Employee Cost
- (b) Repairs and Maintenance
- (c) Administration and General Expenses.
- 55 (2) Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.
- 55 (3) The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for 2003-04 to 2007-08 price level. The average normal O&M expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the O&M expenses for the year2009-10.
- 55(4) The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

55 (5) The O&M expenses for 2009-10 shall be escalated further at the rate of 5.72% per annum as arrive at the operation and maintenance expenses for the subsequent years of the tariff period.

55(6) In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @5.17% per annum up to the year 2007-08 and then averaged to arrive at the O&M expenses at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period. (The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation).

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

Since MLHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 55 (7) at 2% of Project cost and further escalated at 5.72% to arrive at O & M expenses for FY 2013-14, and FY 2014-15.

Table 13: O&M Expenditure

Particulars	Amount (INR Cr)
Total Project Cost	1,286.74
O&M Expenses for FY 2013-14 (2.00% of Project Cost after C.O.D)	25.73
O&M Expenses for FY 2014-15 (5.72% Escalation over previous years)	27.21

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses of Rs. 25.73 Crore and Rs. 27.21 Crore for FY 2013-14, FY 2014-15 respectively.

## 3.6. Depreciation

Depreciation is computed as per Regulation 57 of the MSERC Tariff Regulations, 2011and is calculated annually as per straight-line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) Regulations, 2009.

Furthermore, in the distribution tariff order dated 31st March 2016, the Hon'ble Commission has considered only provisional figures for the depreciation of MLHEP for FY 2012-13 due to the petitioner's inability to furnish details pertaining to project completion report together with the capitalization details under the approval of CEA for capital cost increase etc. and had directed the petitioner to file the present petition for the determination of final tariff of MLHEP at the earliest.

Therefore, in this section, the petitioner presents the depreciation of MLHEP for the years FY 2012-13, FY 2013-14 and FY 2014-15 for true up in the following table:

Table 14: Computation of Depreciation of MLHEP (in INR Crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Land & Land rights	-	-	-
Buildings	3.03	4.78	4.89
Hydraulic Works	31.11	32.42	32.75
Other Civil Works	3.79	3.85	3.92
Plant & Machinery	16.92	18.16	19.28
Lines & Cable Network	0.22	0.24	0.24
Vehicles	0.02	0.02	0.02
Furniture & Fixtures	0.00	0.00	0.00
Office Equipment	0.01	0.01	0.01
Total (INR Crore)	55.11	59.49	61.12

The details of depreciation of each asset class for each year have been provided in Format 6.

MePGCL, therefore, submits before the Hon'ble Commission to kindly approve Depreciation as shown above, for FY 2012-13, FY 2013-14 and FY 2014-15 for MLHEP.

## 3.7. Interest on Working Capital

The determination of working capital requirement and the computation of Interest on Working Capital is governed by Regulation 56 of the MSERC Tariff Regulations, 2011 which is reproduced hereunder for ready reference.

#### "56. Interest on Working capital

56(1) Working Capital shall cover:

- 1) Operation and Maintenance expenses for one month;
- 2) Maintenance spares at the rate of 15% of operation and maintenance expenses specified in Regulation 55 above escalated at the rate of 6% per annum from the date of commercial operation and
- 3) Receivables equivalent to two months of fixed cost.
- 56 (2) Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the financial year for which the generating station files petition for annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency."

In accordance with the above regulations, the Interest on Working Capital for MLHEP is computed below:

Table 15: Interest on Working Capital

Tuble 19, interest on Working Cupital				
Particulars	FY 2013-14	FY 2014-15		
O&M expenses for one month (INR Crore)	2.14	2.27		
Maintenance spares @ 15% of O&M expenses Escalated by 6% per annum from date of C.O.D (INR Crore)	4.09	4.34		
Receivables equivalent to two months of Fixed cost (INR Crore)	36.65	38.26		
Total Working Capital Requirements (INR Crore)	42.88	44.87		
SBI PLR as on 1st April of the respective Financial Year (%)	14.45%	14.75%		
Interest on Working Capital (INR Crore)	6.20	6.62		

MePGCL submits before the Hon'ble Commission to kindly approve the Interest on Working Capital as computed above on normative basis for FY 2013-14 and FY 2014-15 respectively for MLHEP.

#### 3.8. Income Tax

Regulation 58 of the MSERC Tariff Regulations, 2011, provides for claim of Income Tax as expenses. MePGCL submits that no income tax have been claimed during the year FY 2013-14 and FY 2014-14 for MLHEP.

## 3.9. Connectivity and SLDC Charges

The Regulation 61 of MSERC Tariff Regulations, 2011 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per the approved tariff order of SLDC, the SLDC charges applicable for MLHEP for the FY 2013-14 and FY 2014-15 at Rs. 0.52 Crore and Rs. 0.47 Crore respectively.

## 3.10. Other Income

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

As per the audited statement of accounts for FY 2013-14 and Provisional statement of accounts for FY 2014-15, the actual non-tariff income earned by the licensee is Rs. 0.15 crore for FY 2013-14 and nil for FY 2014-15. The details are annexed as per FORMAT 10

## 3.11. Summary of Annual Fixed Cost - Myndtu Leshka HEP

The summary of the Annual Fixed Cost for FY 2013-14 and FY 2014-15 is provided in the table below:

Table 16: Annual Fixed Cost for FY 2013-14 and FY 2014-15 (in INR Crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Interest on Loan Capital		82.78	88.85
Depreciation	55.11	59.49	61.12
O&M Expenses		25.73	27.21
Interest on working Capital		6.20	6.62
Return on Equity		45.30	45.30
Income Tax		-	-
Connectivity & SLDC Charges		0.52	0.47
<b>Gross Annual Fixed Cost</b>	55.11	220.03	229.57
(-) Other Income		0.15	0.00
Net Annual Fixed cost (INR Cr)	55.11	219.88	229.57

MePGCL submits before the Hon'ble Commission to kindly approve the Annual Fixed Cost for MLHEP as shown above for the years FY 2013-14 and FY 2014-15 respectively.

## 3.12. Gap between Computed Annual Fixed Cost and Provisional Tariff approved by MSERC

The MSERC had determined the Annual Fixed Charges of Rs. 135.54 Crore as provisional tariff of MLHEP vide generation tariff order 2013-14 dated 30.03.2013. Revenue for sale of power was determined at a provisional tariff rate of Rs.2.83/kWh from MLHEP for FY 2013-14 and FY 2014-15.

The net gap incurred due to difference in actual sale of power at the MSERC determined provisional tariff and actual annual fixed charges to be recovered is given in the table below:

Table 17: Net Gap for Truing Up of AFC for FY 2013-14 and Provisional Truing Up of FY 2014-15

Particulars	Adjustment of FY 2012-13	True up of FY 2013-14	Provisional True up of FY 2014-15
Net Annual Fixed cost (Actuals in INR Crore)	55.11	219.88	229.57
Net Sales in MU	NA	407.10	403.24
Provisional Tariff Rate (Rs/kWh)	NA	2.83	2.83
Revenue Realized from Sales (INR Cr)	NA	115.21	114.12
Net Gap for Truing up	55.11	104.67	115.45

It is submitted that MEPGCL is not proposing to recover the holding cost/ interest cost on the above gap and the same shall be borne by MePGCL. This is also in line with the order of Hon'ble Appellate Tribunal in Appeal no. 146 of 2014, dated 1st December 2015, in the matter of MePDCL and MSERC versus the objector, which states:

"We direct the State Commission to carry out the true-up by considering audited figures up to 2013-14 and provisional figures for FY 2014-15 and arrive the gap/surplus before approval of ARR and tariff petition for FY 2015-16. Further, the gap if any arrived in the process of true-up, the State Commission is directed not to levy carrying cost on the gap."

MePGCL, therefore humbly prays before the Hon'ble Commission to kindly approve the net gap as computed above in true up of FY 2013-14 and FY 2014-15 and allow the petitioner to recover the same through tariff in FY 2017-18.

## 4. Aggregate Revenue Requirement (ARR) for the 1st MYT Control Period from FY 2015-16 to FY 2017-18

### 4.1. Preamble

In accordance with the provisions of the MYT Regulations, 2014, MePGCL hereby submits ARR for FY 2015-16, FY 2016-17 and FY 2017-18 based on restructured segregated audited financials of FY 2012-13 and the 4<sup>th</sup> Amendment to the Notified Transfer Scheme.

MePGCL submits that Power Purchase Agreement (PPA) for supply of power from MLHEP to MePDCL was signed and as per the PPA, power will be supplied on cost plus basis. Therefore, MePGCL submits that the tariff for the hydro generating station may be determined on cost plus basis.

### 4.2. Components of Tariff

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

### "54 Components of tariff

- 54.1 Tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges to be in the manner provided hereinafter.
- 54.2 The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:
  - (a) Return on equity as may be allowed
  - (b) Interest on Loan Capital;
  - (c) Operation and maintenance expenses;
  - (d) Interest on Working Capital;
  - (e) Depreciation as may be allowed by the Commission;
  - (f) Taxes on Income.
- 54.3 The annual capacity charges recoverable shall be worked out by deducting other income from the total expenses"

Based on above provisions, MePGCL computes and provides herewith various cost elements for determination of tariff.

### 4.3. Gross Fixed Assets

The closing GFA for each year of the control period is worked out considering actual capitalization during FY 2012-13, FY 2013-14, FY 2014-15 and FY 2015-16 and projected capitalization during control period of FY 2015-16 to FY 2017-18. The details are shown in Format – 6 enclosed

Table 18: Gross Fixed Assets (GFA) of MLHEP

Particulars	FY 2012- 13 (Audited)	FY 2013- 14 (Audited)	FY 2014- 15 (Actual)	FY 2015- 16 (Actual)	FY 2016-17 (Projected)	FY 2017-18 (Projected)
Opening Value of Gross Fixed Assets (INR Crore)	-	1,141.83	1,285.78	1,286.13	1,286.74	1,286.74
Additions during the year (INR Crore)	1,141.83	155.19	0.36	9.93	-	-
Retirements during the year (INR Crore)	-	11.24	-	9.32	-	-
Closing Value of Gross Fixed Assets (INR Crore)	1,141.83	1,285.78	1,286.13	1,286.74	1,286.74	1,286.74

MePGCL submits before the Hon'ble Commission to kindly approve Gross Fixed Assets for MLHEP as submitted in the above table.

### 4.4. Return on Equity

The Return on Equity computation for MLHEP for the control period of FY 2015-16 to FY 2017-18 has been computed by considering the actual equity infused and future plans of infusion in the project as elaborated in Section 2.3 above. The Return on Equity (RoE) for MLHEP for the 1<sup>st</sup> MYT control period is shown in the table below:

Table 19: Return on Equity (RoE) of MLHEP

Particulars	FY 2015-16 (Actuals)	FY 2016-17 (Projected)	FY 2017-18 (Projected)
Opening Equity (INR Crore)	323.57	323.57	323.57
Additions during the year (INR Crore)	-	-	62.45
Closing Equity (INR Crore)	323.57	323.57	386.02
Average Equity Considered for RoE (INR Crore)	323.57	323.57	354.80
Rate of Return %	14%	14%	14%
Return on Equity (INR Crore)	45.30	45.30	49.67

MePGCL submits before the Hon'ble Commission to kindly approve the Return on Equity as computed in the above table for MLHEP for the 1st MYT Control Period.

### 4.5. Interest on Loan and Finance Charges

As per Regulation 32 of the MYT Regulations, 2014, Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution.

The present loan capital of MLHEP as well as the plan for future loans has been detailed out in Section 2.3 above. The summary of Interest and Finance charge for the Control Period taking into consideration the repayment schedule of the existing loans and projections for loans to be taken in the future is shown below (details are shown in Format-7):

Table 20: Interest and Finance Charges for the Control Period

Particulars	FY 2015-16 (Actuals)	FY 2016-17 (Estimated)	FY 2017-18 (Projected)
Opening Balance (INR Crore)	730.20	693.27	622.16
Addition during the Year (INR Crore)	0.00	0.00	99.48
Repayment during the Year (INR Crore)	36.93	71.11	176.89
Closing Balance (INR Crore)	693.27	622.16	544.76
Interest Payable (INR Crore)	82.69	76.06	74.48
Add: Finance Charges (INR Crore)	0.00	0.00	0.00
<b>Total Interest &amp; Finance Charges (INR Crore)</b>	82.69	76.06	74.48

MePGCL prays before the Hon'ble Commission to kindly approve the Interest and Finance Charges as shown above for MLHEP for the Control Period FY 2015-16 to FY 2017-18.

### 4.6. Operation and Maintenance Expenses

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

### "56 Operation and maintenance expenses

- 56.1 Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -
- (a) Employee Cost
- (b) Repairs and Maintenance
- (c) Administration and General Expenses
- 56.2 Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04

to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

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

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

56.5 The O&M expenses for 2009-10 shall be escalated further at the rate of 5.72% per annum as arrive at the operation and maintenance expenses forth subsequent years of the tariff period.

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

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

Since MLHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 56 (7) at 2% of fixed cost and further escalated at 5.72% to arrive at O & M expenses for FY 2015-16, FY 2016-17 and FY2017-18.

Table 21: O & M Expenditure

Particulars	Amount (INR Crore)
Project Cost	1286.74
O&M Expenses for FY 2013-14 (2% of Project Cost)	25.73
O&M Expenses for FY 2014-15 (5.72% escalation over previous Year)	27.21
O&M Expenses for FY 2015-16 (5.72% escalation over previous Year)	28.76
O&M Expenses for FY 2016-17 (5.72% escalation over previous Year)	30.41
O&M Expenses for FY 2017-18 (5.72% escalation over previous Year)	32.15

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses as computed above on normative basis for the control period i.e. FY 2015-16, FY 2016-17 and FY 2017-18.

### 4.7. Depreciation for the Control Period

Depreciation is computed as per Regulation 33 of the MYT Regulations, 2014. The depreciation is computed on the final gross value of the assets by straight line method using depreciation rates as prescribed in Appendix – III of the CERC Tariff Regulations, 2009.

The depreciation of various classes of assets is shown in the table below and the detailed calculations is attached as Format-6.

Table 22: Depreciation (in INR Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Land & Land rights	-		
Buildings	4.89	4.89	4.89
Hydraulic Works	32.71	32.71	32.71
Other Civil Works	3.90	3.90	3.90
Plant & Machinery	19.22	19.22	19.22
Lines & Cable Network	0.24	0.24	0.24
Vehicles	0.02	0.02	0.02
Furniture & Fixtures	0.00	0.00	0.00
Office Equipment	0.01	0.01	0.01
Total	61.00	61.00	61.00

MePGCL submits before the Hon'ble Commission to kindly approve Depreciation of Rs 61.00 Crore for FY 2015-16, FY 2016-17 and FY 2017-18 for MLHEP.

### 4.8. Interest on Working Capital

Regulation 34.1 (iii) of the MYT Regulations, 2014, is reproduced below:

### "34 Interest on Working Capital

### 34.1 Generation

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

• *Operation and maintenance expenses for one (1) month;* 

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

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

As per the above mentioned Regulation, the computation of Interest on Working Capital for MLHEP is shown below:

Table 23: Interest on Working Capital

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
O & M Expenses for 1 month (INR Crore)	2.40	2.53	2.68
Maintenance Spares @15% of O&M plus escalated by 6%			
from date of COD (INR Crore)	4.85	5.13	5.42
Receivables @ 2 months of Fixed Cost (INR Crore)	37.45	36.61	37.39
Total Working Capital requirement (INR Crore)	44.69	44.26	45.49
Computation of working capital interest			
SBI Advance Bank rate as on 1.4.2015 (%)*	14.60	14.60	14.60
Interest on Working Capital (INR Crore)	6.52	6.46	6.64

<sup>\*</sup>SBI Advance Rate revised on 10th April, 2015, same has been taken for all the years

MePGCL submits before the Hon'ble Commission to kindly approve the Interest on Working Capital as computed above for MLHEP for the Control Period.

### 4.9. Income Tax

Regulation 35 of the MYT Regulations, 2014, provides for claim of Income Tax as expenses. However, MePGCL submits that income tax shall be claimed in subsequent filings for true-up.

### 4.10. Connectivity and SLDC Charges

The Regulation 59 of MYT Regulations, 2014 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per the approved tariff order of SLDC, the charges applicable for MLHEP for each year of the control period of FY 2015-16 to FY 2017-18 is Rs. **0.40**Crore.

It is prayed before the Honorable Commission to kindly approve the same.

### 4.11. Summary of Annual Fixed Chargesof Myndtu Leshka HEP for the Control Period

Based on the above submissions, the summary of the Annual Fixed Cost for MLHEP for the Control Period FY 2015-16 to FY 2017-18 is provided in the table below:

Table 24: Annual Fixed Charges – Myndtu Leshka HEP (INR Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Interest on Loan capital	82.69	76.06	74.48
Depreciation	61.00	61.00	61.00
O&M Expenses	28.76	30.41	32.15
Interest on working capital	6.52	6.46	6.64
Return on Equity	45.30	45.30	49.67
Income Tax	-	-	-
SLDC Charge	0.40	0.40	0.40
<b>Total Annual Fixed Cost</b>	224.68	219.64	224.35
Less: Non-Tariff Income	-	-	-
<b>Net Annual Fixed Cost</b>	224.68	219.64	224.35

MePGCL prays before the Hon'ble Commission to kindly approve the Annual Fixed Cost of MLHEP for the 1st MYT Control Period FY 2015-16 to FY 2017-18 as submitted above.

### 5. Computation of Capacity Charge and Energy Charge for the Control Period

### 5.1. Regulatory Provisions

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

## "57 Computation and payment of capacity charge and energy charge for Hydrogenerating stations.

57.1 Capacity Charges:

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

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

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

 $= AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF)$  (in Rupees)

Where,

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

NAPAF= Normative plant availability factor in percentage

*NDM* = *Number of days in the month* 

*NDY* = *Number* of days in the year

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

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

$$PAFM = 100000 \times \Sigma DCi / \{NxICx(100 - AUX)\}\%$$

i=1

Where,

*AUX* = *Normative* auxiliary energy consumption in percentage

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

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

N = Number of days in the month

57.2 Energy Charges:

- (1) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex power plant basis, at the computed energy charge rate. Total Energy charge payable to the generating company for a month shall be:
- = (Energy charge rate in Rs. / kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 FEHS) / 100.
- (2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the provisions of clause (4):

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$$

Where,

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

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

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

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

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

- (iii) Actual energy generated (e.g. A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by 100 / (100 AUX).
- (4) In case the energy charge rate (ECR) for a hydro generating station, as computed in clause (5) above, exceeds eighty paise per kWh, and the actual saleable energy in a

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

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

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

### 5.2. Net Annual Fixed Cost to be recovered in Each Year of the Control Period

As submitted in the previous sections, the net Annual Fixed Charges to be considered for the determination of final tariff of MLHEP is as shown below:

Table 25: Annual Fixed Charges – Myndtu Leshka HEP (INR Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Net Annual Fixed Cost projected for Control Period	224.68	219.64	224.35
Add: Depreciation of FY 2012-13			55.11
Add: True up of FY 2013-14			104.67
Add: Provisional True up of FY 2014-15			115.45
Net AFC for Computation of Tariff	224.68	219.64	499.58

Now, based on the Regulations, 50% of the Annual Fixed Cost is to be recovered as Capacity Charge and the balance is to be recovered as Energy Charge from the beneficiary. Therefore, the Capacity Charges and Energy Charges for MLHEP for the Control Period FY 2015-16 to FY 2017-18 would be as computed below:

Table 26: Capacity and Energy Charges for Myndtu Leshka HEP for the Control Period

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Net AFC for Computation of Tariff	224.68	219.64	499.58
Design Energy (MU)	486.23	486.23	486.23
Less: Auxilliary Consumption @ 1%	4.86	4.86	4.86
Less: Transformation Loss @ 0.5%	2.43	2.43	2.43
Net Energy (MU)	478.94	478.94	478.94
Fixed Charge (INR Crore)	112.34	109.82	249.79
Variable Charge (Rs./kWh)	2.35	2.29	5.22

Based on all above submissions, the petitioner humbly prays before the Hon'ble Commission to kindly approve the final tariff of Myntdu Leshka Hydro Electric Project as computed in the above table to be recovered in the 1st MYT Control Period FY 2015-16 to FY 2017-18.

## 6. Compliance to Observations of the Hon'ble Commission on The Previous Petition Filed By MePGCL

# 6.1. Replies to MSERC's Observations on the Tariff Petition of MLHEP (Ref: MSERC Letter No. F.No. MSERC/MeECL/MLHEP/155 dated 26th August, 2015)

### 1. Report of Technical Committee:

a. A detailed consolidated report of Technical Committee constituted vide Government Notification Dated 28.11.2013 including compilation of actual expenditure, IDC, total project cost and justification for accepting or modification of the revised estimates along with suggestions to the Power Department, Government of Meghalaya, the Observations of the Government of Meghalaya on the Report & completed cost of the project.

### **MePGCL's Reply:**

The letter from the Government of Meghalaya conveying the concurrence of the State Government to the Report on the completion cost of Myntdu Leshka H.E. Project is enclosed as **Annexure –VII** including the Report of the Technical Committee

### 2. Audit Report:

b. Complete Audit Report with supporting documents issued by statutory auditor on MePGCL, statement of Accounts of FY 2012-13.

### **MePGCL's Reply:**

The audit report of FY 2012-13 is submitted as Annexure - XIV

c. Supplementary (Review) Audit Report issued by C&AG on the above (b)

### MePGCL's Reply:

The Supplementary Audit Report for FY 2012-13 is at Annexure-XV

d. Cost Audit Report of MLHEP

### **MePGCL's Reply:**

The Cost audit report for MLHEP separately is not done but the Cost Audit for MePGCL as a whole is done. The Cost audit report of FY 2012-13 for MeECL and cost audit report of FY 2013-14 for MePGCL, are both appended as **Annexure-XVII** and **Annexure-XVII** respectively.

e. Transaction Audit Report for the Project (MLHEP) issued by C&AG

### **MePGCL's Reply:**

The latest transaction audit reports as on 19<sup>th</sup> November, 2014 & 29<sup>th</sup> April, 2016 are attached as **Annexure –XVIII & Annexure – XIX** 

f. Supplementary Audit Report on audited Statement of Accounts for FY 2011-12 issued by C&AG

### **MePGCL's Reply:**

The Supplementary audit report for FY 2011-12 is attached as **Annexure – XX** 

g. Adoption of Financial Statement of Accounts for FY 2011-12 and FY 2012-13 in the Board's Meeting.

### MePGCL's Reply:

Extracts from the Board of Directors' resolutions adopting the Financial Statements of Accounts for Financial Year 2011-12 and Financial year 2012-13 are enclosed as **Annexure - XXI** (a) & (b) and XXI (c) & (d) respectively.

### 3. Report of Cost Verification:

h. Report on cost verification submitted by IIT Roorkee should submit its findings on the reasons for the delay in execution of the project resulting in cost overrun (in monetary terms) separately for – (i) due to factors which are entirely attributable to generating company (imprudence in selecting suppliers and contractual agreements, mismanagement of finances, improper co-ordination, etc.) and (ii) due to factors beyond the control of the generating company (force majeure like natural calamity or any other which clearly establish beyond any doubt that here is no imprudence by the generating company) and (iii) for the situations not covered in (i) and (ii).

### MePGCL's Reply:

The report on cost verification submitted by IIT Roorkee is attached as **Annexure-VIII** 

i. While doing cost verification, IIT should also indicate that "Guidelines for formulation of detail project report for hydro electric schemes and examination for concurrence" issued by CEA in 2007 is followed.

### MePGCL's Reply:

Reply of IIT Roorkee on the above is available at Page - 4 of **Annexure - XXII** enclosed.

4.

j. Format (HG 4, Format 1 to 5) as specified in MYT Regulations 2015 duly completed in all respects for necessary validation.

### **MePGCL's Reply:**

As per MYT regulations the Format HG4 is not applicable as MLHEP is a run of river plant.

Formats 1-5 are enclosed in the relevant section

k. Supporting documents submitted to CEA for TEC/Statutory clearances by MePGCL/MeSEB

### **MePGCL's Reply:**

The documents are submitted as **Annexure-XXIII** 

l. The sale of infirm power is to be provided month-wise, energy sold (MU), total billed amount and applicable UI rate.

### **MePGCL's Reply:**

Letter from SLDC on infirm power and cost is enclosed at **Annexure-XXIV** 

m. Details of NAPAF as envisaged in the DPR of the project vetted by CEA

### MePGCL's Reply:

Details of NAPAF are shown at **Annexure-XXV** 

### n. Capital Cost:

i) The Capital Cost of MLHEP for infrastructure, major civil work, hydro mechanical equipments, plants and equipments, taxes, construction/erection/commissioning expenses, overheads, including IDC, financing charges, liquidated damages, etc should be given in the following format:

Sn	Head of Work	DPR Cost (Rs)		Ordering Cost (Rs)	Completion Cost (Rs)
----	--------------------	---------------------	--	-----------------------	-------------------------

### **MePGCL's Reply:**

The abstract Capital Cost alongwith details as per format above is shown at **Annexure-XXVI** 

ii) Stage wise capital cost break up of MLHEP (2 x 42 MW & 1 x 42 MW) and date of commercial operation of each unit as per the regulation (21)

### **MePGCL's Reply:**

The abstract of cost showing cost for (2x42MW) amounting Rs. 1126.18 crore and cost for (1x42 MW) amounting Rs. 160.56 crore alongwith details as per format above is enclosed at **Annexure-XXVI** as above.

### o. Capital Loans:

i) Financing pattern of Rs. 1243.04 crores (capital cost of MLHEP) and to clarify details of any unpaid amount included in the capital cost.

### **MePGCL's Reply:**

The financing pattern is enclosed at Annexure-XIII

ii) When the project is completed and the 3rd unit commissioned on 01.04.2013, the specific purpose for which the additional loans of Rs. 71.89 crore in FY 2013-14 and Rs. 107.87 crore in FY 2015-16 are utilised/proposed to be utilised are required.

### **MePGCL's Reply:**

The proposed loans are meant for payment of pending bills and the additional capital work.

iii) Details of efforts taken by Company to swap loans resulting in net benefit as per regulation 55.

### **MePGCL's Reply:**

As per Regulation 55.4 of the MYT Regulations 2014, the generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

It is rightfully submitted that the average interest rates of existing loans of MLHEP are to the tune of about 11.58%. It is further submitted that for availing loan in the current market scenario, the interest rate is around 12%. Over and above this, 1% charges are levied for swapping of loans.

Hence the resultant interest rate after swapping comes out to about 13%, which is higher as compared to the current interest rate for MLHEP.

iv) As verified from the agreement between borrower and borrowee, institution wise rates of interest are as follows.

SN	Name of the Institution	Amount of Loan	Rate of Interest
1	Central Bank of India	Rs. 75.00 crore	10.50%
2	Federal Bank	Rs. 50.00 crore	9.95%
3	Bonds	Rs. 120.00 crore	9.90%

But the rates of interest worked based on the interest claimed by the company vide format 7 of the petition are as shown below:

SN	Name of Institution	Rate of Interest
1	Central Bank of India	13.86%
2	Federal Bank	14.45%
3	Bonds	10.38%

### MePGCL's Reply:

It is submitted that the loans for the above Institutions are as per the market rate. And as per the agreement with the financial institutions, the prevailing interest rates will be levied for MLHEP.

The relevant clause of the agreement is reproduced below for reference:

### Central Bank of India:

Clause No: 13 (Annexure – XXVII A)

**Federal Bank:** 

Clause No:1 (Annexure-XXVII B)

**Bonds:** 

### Clause No:6.(k) & Clause No:6(i) (Annexure – XXVII C & XXVII D)

v) Further the value of bonds is furnished at Rs. 170 crore as against Rs. 120 crore shown in the agreement. The reasons for variance require elucidation may be given. If any, penal interest claimed may also be submitted.

### **MePGCL's Reply:**

The value of bonds submitted are for Rs. 120 crore and Rs. 50 crores. Details are shown at **Annexure – XXVIII (a) & XXVIII (b)** 

vi) Loan to a tune of Rs. 75 crore are availed from the Central Bank of India. But as seen from format 7 of petition the opening loan from CBI for FY 2012-13 is furnished as Rs. 75.07 crore. The reasons for increase in principle loan amount require clarification. Further the purpose for which the additional amount of Rs. 0.4843 crore is drawn during FY 2012-13 may be provided

### **MePGCL's Reply:**

It is submitted that Rs. 80 Cr. was sanctioned by the Central Bank of India, but only Rs. 75.07 Cr. was drawn. Further, an amount of Rs 0.4843 Crore was in addition during the FY 2012-13.

vii) The specific purpose for which the market loan of Rs. 0.58 crore proposed to be availed during FY 2015-16 is required.

### MePGCL's Reply:

It is submitted that the market loan for an amount of 0.58 Crore is proposed for the procurement of UPS / Standby power supply for the DAM and the relevant information is submitted in the petition at sl. 2.2.1.

### p. Equity:

- i) The capital structure as per regulation 27.1 & 3rd provision should be given.
- ii) As per GoM notification dated 13.12.2012 equity infused is Rs. 288.62 crore. But in the petition vide Table 7, the opening equity for FY 2014-15 is furnished as Rs. 387.22 crore. This requires clarification

### **MePGCL's Reply:**

The equity amount infused from the government is Rs. 323.57 Crore. Detail at **Annexure – XIII.** 

## **FORMATS**

Name of the Hydro Generating Station: Myntdu Leshka Hydel Electric Project

DETAILS OF COD, TYPE OF HYDRO STATIONS, NORMATIVE ANNUAL PLANT, AVAILABILITY FACTOR (NAPAF) & OTHER NORMATIVE PARAMETERS CONSIDERED FOR TARIFF CALCULATION

SL NO	DESCRIPTION	UNIT	2013-14 (ACTUAL)	2014-15 (ACTUAL)	2015-16 (ACTUAL)	2016-17 (ESTIMATED)	2017-18 (PROJECTED)
1	Installed Capacity	MW	126.00	126.00	126.00	126.00	126.00
2	Free Power to Home State	%	N.A	N.A	N.A	N.A	N.A
3	Date of Commercial Operation	-	-	-	-	-	-
	Unit – I	-	1-Apr-12	1-Apr-12	1-Apr-12	1-Apr-12	1-Apr-12
	Unit – II	-	1-Apr-12	1-Apr-12	1-Apr-12	1-Apr-12	1-Apr-12
	Unit – III	-	1-Apr-13	1-Apr-13	1-Apr-13	1-Apr-13	1-Apr-13
4	Type of Station	-					
	Surface/Underground	-	Surface	Surface	Surface	Surface	Surface
	Purely ROR/Pondage/Storage	-	ROR	ROR	ROR	ROR	ROR
	Peaking/Non Peaking	-	Non Peaking	Non Peaking		Non Peaking	Non Peaking
	No. of hours Peaking	-	N.A	N.A	N.A	N.A	N.A
	Overload Capacity (MW) & period	-	-	-	-	-	-
5	Type of Excitation	=	-	-	-	=	-
	Rotating exciters on Generator	=	-	-	-	=	-
	Static excitation	-	Static Type	Static Type	Static Type	Static Type	Static Type
6	Design Energy (Annual)	Gwh	413.30	409.38	445.9	438.83	450
7	Auxiliary consumption including Transformation losses	%	1.20	1.20	1.20	1.20	1.20
8	Normative Plant Availability Factor (NAPAF)	%	39	39	39	39	39
9.1	Maintenance spares for WC	Rs. Lakh					
9.2	Receivable for WC	Rs. Lakh					
9.3	Base rate on return on equity	%					
9.4	Tax rate	%					

Name of the Hydro Generating Station: Myntdu Leshka Hydel Electric Project

DETAILS OF COD, TYPE OF HYDRO STATIONS, NORMATIVE ANNUAL PLANT, AVAILABILITY FACTOR (NAPAF) & OTHER NORMATIVE PARAMETERS CONSIDERED FOR TARIFF CALCULATION

111141	TETETO COTTON ETTED TOTAL	инт отшестит	1011				
SL NO	DESCRIPTION	UNIT 2013-14 (ACTUAL)		2014-15 (ACTUAL)	2015-16 (ACTUAL)	2016-17 (ESTIMATED)	2017-18 (PROJECTED)
9.5	Prime lending rate of SBI as on 01.04.2012	%	14.45%	14.75%	14.60%	14.60%	14.60%

Format: HG2

3.40 M, Modified Horse Shoe

3313.46 M

**46.49 Cumecs** 

Restricted Orifice Surge Tank with Orifice. Diameter=1.8 m (with lower expansion gallery of Dia. 5.8 m, L = 80.00 m)

8.80 M

85.0 M

Circular (Steel) penstock

3 nos. Each 2.0 M Dia, 756.25 m

Surface

3 x 42MW

N.A

Vertical Francis

300.30 M

15.05 each Unit

Channel Type

60.0 M

### SALIENT FEATURES OF HYDROELECTRIC PROJECT Name of the Hydro Generating Station: Myndtu Leshka Power Station

Megahalaya State, West Jaintia State / Distt. Hills District Myntdu and Leshka River. River 2. Diversion Tunnel Construction Sluice Size, Shape  $3.0 \text{ m} \times 3.0 \text{ m}, L = 70.80 \text{ m}$ Length L = 70.80 m3. Dam Type **Concrete Gravity** Maximum dam height 63.00 M 4. Spillway Sluice Type Crest level of Spillway 587.50 M 5. Reservoir Full Reservoir Level (FRL) 618.00 M Minimum Draw Down Level(MDDL) 606.15 M Live Storage (MCM) 7.00 MCM 6. De-silting Arrangement Type N.A Number and Size Particle size to be removed (mm) 7. Head Race Tunnel

Length

1. Location

Size and Type

8. Surge Shaft

Design Discharge (Cumecs)

9. Penstock/ Pressure Shafts

Installed Capacity (No of Units x MW)

Peaking Capacity during lean period (MW)

Diameter & Length

10. Power House

Type of Turbine

Rated Head (M)

11. Tail Race Tunnel
Diameter, Shape

Rated Discharge (Cumecs)

Length

Type

Diameter

Height

Type

Type

Minimum tail water level	286.78 m
12. Switch yard	
Type of Switch gear	Outdoor
No. Of generator bays	3 Nos.
No. Of Bus Coupler bays	1 No.
No. Of line Bays	2 Nos.

Name of the Hydro Generating Station: Myndtu Leshka H.E Project

114	FY 13-14 (Actual) FY 14-15 (Actual) FY 15-16 (Actual) FY 16-17 (Estimated) FY 17-18 (Projected)											
~1											/ \	
Sl	MONTH	Un	DESIGN	MW								
N		it	ENERGY	CONTINU								
О		- 10	(MU)	OUS								
1	APRIL	I.	1.49	2.07	0.56	0.78	6.28	8.72	3.38	4.69	2.50	3.47
		II.	1.99	2.76	1.08	1.50	6.08	8.44	15.34	21.31	2.50	3.47
		III.	3.76	5.22	3.23	4.49	5.62	7.81	7.72	10.72	2.50	3.47
2	MAY	I.	16.25	21.84	12.82	17.23	13.20	17.74	21.64	29.09	14.00	18.82
		II.	12.43	16.71	14.99	20.15	14.99	20.15	23.67	31.81	14.00	18.82
		III.	11.75	15.79	15.09	20.28	9.37	12.59	6.94	9.33	14.00	18.82
3	JUNE	I.	20.92	29.06	27.93	38.79	27.33	37.96	26.41	36.68	25.60	35.56
		II.	17.89	24.85	24.95	34.65	26.85	37.29	25.85	35.90	25.60	35.56
		III.	23.78	33.03	24.95	34.65	25.58	35.53	24.31	33.76	25.60	35.56
4	JULY	I.	28.84	38.76	28.05	37.70	29.66	39.87	28.65	38.51	27.68	37.20
		II.	25.67	34.50	29.05	39.05	25.30	34.01	29.99	40.31	27.68	37.20
		III.	29.11	39.13	27.09	36.41	28.29	38.02	29.89	40.17	27.68	37.20
5	AUGUST	I.	23.36	31.40	28.52	38.33	27.59	37.08	20.76	27.90	26.67	35.85
		II.	27.20	36.56	25.62	34.44	28.49	38.29	19.10	25.67	26.67	35.85
		III.	27.71	37.24	17.23	23.16	29.68	39.89	13.61	18.29	26.67	35.85
6	SEPTEMBER	I.	24.15	33.54	27.61	38.35	26.66	37.03	23.41	32.51	27.50	38.19
		II.	17.30	24.03	26.93	37.40	28.19	39.15	23.18	32.19	27.50	38.19
		III.	24.96	34.67	17.43	24.21	24.12	33.50	18.25	25.35	27.50	38.19
7	OCTOBER	I.	13.49	18.13	12.34	16.59	15.05	20.23	15.05	20.23	14.00	18.82
		II.	12.48	16.77	4.57	6.14	5.27	7.08	15.00	20.16	14.00	18.82
		III.	16.87	22.67	12.76	17.15	14.52	19.52	14.52	19.52	14.00	18.82
8	NOVEMBER	I.	4.77	6.63	0.00	0.00	8.64	12.00	8.64	12.00	4.50	6.25
		II.	2.09	2.90	2.32	3.22	0.81	1.13	0.81	1.13	4.50	6.25
		III.	3.84	5.33	6.74	9.36	0.00	0.00	1.50	2.08	4.50	6.25
9	DECEMBER	I.	3.31	4.45	0.00	0.00	6.59	8.86	6.59	8.86	2.67	3.59
		II.	2.37	3.19	0.68	0.91	0.54	0.73	0.54	0.73	2.67	3.59
		III.	1.32	1.77	4.86	6.53	0.00	0.00	1.00	1.34	2.67	3.59
10	JANUARY	I.	1.29	1.73	0.00	0.00	4.18	5.62	4.18	5.62	1.68	2.26
		II.	2.21	2.97	0.81	1.09	0.09	0.12	1.00	1.34	1.68	2.26
		III.	1.39	1.87	4.81	6.47	0.00	0.00	1.00	1.34	1.68	2.26
11	FEBRUARY	I.	0.00	0.00	0.00	0.00	2.53	3.64	1.50	2.16	1.68	2.41
		II.	2.95	4.24	2.47	3.68	0.00	0.00	1.00	1.44	1.68	2.41

		III.	2.04	2.93	0.31	0.46	1.83	2.63	1.83	2.63	1.68	2.41
12	MARCH	I.	0.00	0.00	1.58	2.12	1.62	2.18	1.62	2.18	1.52	2.04
		II.	1.04	1.40	0.46	0.62	0.63	0.85	0.63	0.85	1.52	2.04
		III.	3.21	4.31	1.51	2.03	0.32	0.43	0.32	0.43	1.52	2.04
	TOTAL		413.23	562.47	409.35	557.94	445.90	608.07	438.83	598.24	450.00	613.38

Format: HG5

## Name of the Hydro Generating Station: Myndtu Leshka H.E Project Annual Revenue Requirement

(Rs. in Crores)

	<u></u>					(Rb. III Clores)
Sl. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
51. 110.	Tarticulars	(Actual)	(Actual)	(Actual)	(Estimated)	(Estimated)
1	Gross Generation (MU)	413.30	409.38	445.90	438.83	450.00
2	Auxilary Consumption (MU)	4.13	4.09	6.69	6.58	6.75
3	Net Generation (MU)	407.10	403.24	439.21	432.25	443.25
4	Free Energy to home state (MU)	-	-	-	-	-
5	Royalty (Rs.)	-	-	-	-	-
6	Water Charges (Rs.)	-	-	-	-	-
7	Capacity Charges (Rs.)					
	a) Interest on Loan capital (Rs.)	82.78	88.85	82.69	76.06	74.48
	b) Depreciation (Rs.)	59.49	61.12	61.00	61.00	61.00
	c) Advance against depreciation (Rs.)	-	-	-	-	-
	d) O&M Expenses (Rs.)	25.73	27.21	28.76	30.41	32.15
	e) Interest on working capital (Rs.)	6.20	6.62	6.52	6.46	6.64
	f) Foreign exchange Rate (%)	-	-	-	-	-
	g) Return on Equity	45.30	45.30	45.30	45.30	49.67
	h) Income Taxes (Rs.)	-	_	_	-	-
·	i)SLDC charges	0.52	0.47	0.40	0.40	0.40
	Total fixed expenses (5+6+7)	220.03	229.57	224.68	219.64	224.35

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### EMPLOYEE COST

(Rs. in Crore)

S.N	Particulars	FY 2013-14	FY 2014-15	FY 2015-16	(Rs. in Crore)  FY 2016-17  (Apr to  June 2016)
1	2	3	4	5	6
	SALARIES & ALLOWANCES				
1	Basic Pay	3.27	3.48	3.35	0.59
2	Dearness Pay	-	-	-	-
3	Dearness Allowance	1.08	1.16	1.28	0.38
4	House rent Allowance	0.75	0.44	0.45	0.11
5	Fixed medical allowance	ı	-	-	-
6	Medical reimbursement charges	0.05	0.05	0.04	-
7	Over time payment	-	-	0.01	-
8	ROP-2015	-	-	-	-
9	Generation incentive	-	-	-	-
10	Leave Travel Concession	-	-	-	-
11	Apportionment of Holding Exp	-	-	-	-
12	Sub-Total	5.16	5.14	5.12	1.07
	<b>Terminal Benefits</b>				
13	Leave encashment	0.03	-	-	-
14	Gratuity	ı	-	-	-
15	Commutation of Pension	ı	-	-	-
16	Staff Welfare expenses	ı	-	-	-
17	CPS	0.09	0.10	0.10	0.03
18	Workman compensation	-	-	-	-
19	Ex- gratia	-	-	-	-
	Sub-Total	0.11	0.10	0.10	0.03
	Pension Payment				
20	Basic Pension				
21	Dearness Pension				
22	Dearness allowance				
23	Any other expenses				
24	Sub-Total	-	-	-	
25	Total (11+17+22)	<b>5.2</b> 7	5.23	5.23	1.10
26	Amount capitalised				
<b>2</b> 7	Net amount	5.27	5.23	5.23	1.10
28	Add prior period expenses *	0.09	0.00	0.06	-
29	Grand Total	5.35	5.23	5.29	1.10

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### TOTAL NUMBER OF EMPLOYEES

Sl. No.	Particulars	FY2013-14 (Actuals)	FY 2014-15 (Actuals)	FY 2015-16 (Actuals)	FY 2016-17 (Estimated)	FY 207-18 (Projected)	FY 2019-20 (Projected)
1	2	3	4	5	6	7	8
1	Number of employees as on 1st April	1088	1079	1066	1061	1061	1061
2	Number of employees on deputation/foreign service as on 1st April	0	О	О	О	О	О
3	Total Number of employees (1+2)	1088	1079	1066	1061	1061	1061
4	Number of employees retired/retiring during the year	9	13	5	_	_	_
5	Number of employees at the end of the year (3-4)	1079	1066	1061	1061	1061	1061

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### EMPLOYEES PRODUCTIVE PARAMETERS

Sl.No.	Particulars	FY2013-14 (Actuals)	FY 2014-15 (Actuals)	FY 2015-16 (Actuals)	FY 2016-17 (Estimated)	FY 207-18 (Projected)	FY 2019-20 (Projected)
1	Number of consumers in million	NA	NA	NA	NA	NA	NA
2	Connected load in kW	NA	NA	NA	NA	NA	NA
3	Line circuit in KM (LT+HT)	NA	NA	NA	NA	NA	NA
4	Energy sold in MU*						
5	Employees per MU of energy sold						
6	Employees per 1000 consumers	NA	NA	NA	NA	NA	NA
7	Share of employees cost in total expenses						
8	Employees cost in paise / kWh of energy sold						
9	Line circuit KM (EHT Lines)	NA	NA	NA	NA	NA	NA
10	Employees per KM of EHT line (Transmission related)	NA	NA	NA	NA	NA	NA
11	Power station installed capacity own generation (MW)*	126.00	126.00	126.00	126.00	126.00	126.00
12	Employees per MW of capacity For generating company*	9	8	8	8	8	8

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### REPAIRS AND MAINTENANCE EXPENSES

(Rs. in Crore)

S.No	Particulars	FY 2013-	FY 2014-	FY 2015-16	FY 2016-17 (Apr to June
5.110	Turticulars	14	15	11 2013 10	2016)
1	2	3	4	5	6
	Plant & Machinery	_	-	1.44	0.67
	-Plant and Apparatus				
	-EHV Sub-stations				
	- 33 kV Sub-stations				
1	- 11 kV Sub-stations				
	-Switch gear and cable				
	connections				
	- Others				
	Total	-	-	1.44	0.67
2	Building	0.02	0.02	0.14	0.01
3	Hydraulic works & Civil Works	0.31	0.21	0.41	0.00
	Line cable & Network	-	-	0.09	0.00
	- EHV Lines	_	-	-	-
	-33 kV Lines	-	-	-	-
	-11 kV Lines	-	-	-	-
4	-LT Lines	-	-	-	-
	-Meters and metering	_	_	_	_
	equipment	_	_	_	_
	-Others	-	-	-	-
	Total	-	-	0.09	0.00
5	Vehicles	0.09	0.08	0.07	0.02
6	Furniture & Fixtures	-	0.01	0.01	0.00
7	Office equipments	0.01	0.01	0.01	0.00
8	Operating expenses/ Civil	_	_	0.15	_
	Works				
9	Total	0.43	0.32	2.32	0.70
10	Add / Deduct share of other (To be specified)				
11	Total expenses	0.43	0.32	2.32	0.70
12	Less capitalized				
13	Net expenses	0.43	0.32	2.32	0.70
14	Add prior period *				
15	Total expenses charges to revenue as R&M expenses	0.43	0.32	2.32	0.70

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### ADMINISTRATION AND GENERAL EXPENSES

(Rs. in Crore)

S.N	Particulars	FY 2013-14	FY 2014- 15	FY 2015- 16	FY 2016-17 (Apr to June 2016)
1	2	3	4	5	6
1	Rent, rates & taxes	0.00	0.03	0.05	-
2	Insurance	0.02	0.01	0.01	0.00
3	Telephone, postage & Telegrams	0.02	0.01	0.01	0.00
4	Consultancy fees	0.98	-	-0.01	-
5	Technical fees	-	-	-	-
6	Other professional charges	0.00	0.00	0.15	-
7	Conveyance & travel expenses	0.29	0.29	0.23	0.11
8	Electricity & Water charges	0.00	0.00	0.00	0.00
9	Others	0.06	0.07	0.03	0.00
10	MSERC Fees	-	-	-	-
11	Freight	-	-	-	-
12	Other material related expenses	-	-	-	-
13	Total expenses	<b>1.3</b> 7	0.42	0.48	0.11
14	Less Capitalised				
15	Net expenses	1.37	0.42	0.48	0.11
16	Add Prior period*				
17	Total expenses charged to revenue	1.37	0.42	0.48	0.11

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### 2013-14

### VALUE ASSETS AND DEPRECIATION

S.No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land rights	15.54	13.21	-	28.75		-
2	Buildings	91.52	54.91	ı	146.43	3.34	4.78
3	Hydraulic Works	590.14	44.12	11.24	623.01	5.28	32.42
4	Other Civil Works	114.10	3.33	-	117.43	3.34	3.85
5	Plant & Machinery	325.77	39.32	-	365.09	5.28&6.33	18.16
6	Lines & Cable Network	4.32	0.25	-	4.57	5.28	0.24
7	Vehicles	0.24	-	-	0.24	9.50	0.02
8	Furniture & Fixtures	0.04	0.04	ı	0.08	6.33	0.00
9	Office Equipment	0.16	0.02	-	0.18	6.33	0.01
10	Total	1,141.83	155.19	11.24	1,285.78		59.49

### VALUE ASSETS AND DEPRECIATION

S.No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land rights	28.75	0.04	-	28.79		-
2	Buildings	146.43	0.03	-	146.46	3.34	4.89
3	Hydraulic Works	623.01	0.08	-	623.10	5.28	32.75
4	Other Civil Works	117.43	0.14	-	117.57	3.34	3.92
5	Plant & Machinery	365.09	0.07	-	365.16	5.28&6.33	19.28
6	Lines & Cable Network	4.57	-	-	4.57	5.28	0.24
7	Vehicles	0.24	-	-	0.24	9.50	0.02
8	Furniture & Fixtures	0.08	-	-	0.08	6.33	0.00
9	Office Equipment	0.18	-	-	0.18	6.33	0.01
10	Total	1,285.78	0.36	-	1,286.13		61.12

### 2015-16

### VALUE ASSETS AND DEPRECIATION

S.No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land rights	28.79	0.85	5.74	23.90		-
2	Buildings	146.46	0.25	0.03	146.68	3.34	4.89
3	Hydraulic Works	623.10	1.30	0.79	623.60	5.28	32.71
4	Other Civil Works	117.57	6.63	1.50	122.70	3.34	3.90
5	Plant & Machinery	365.16	0.68	1.26	364.57	5.28&6.33	19.22
6	Lines & Cable Network	4.57	0.00	-	4.57	5.28	0.24
7	Vehicles	0.24	0.22	-	0.46	9.50	0.02
8	Furniture & Fixtures	0.08	-	-	0.08	6.33	0.00
9	Office Equipment	0.18	-	-	0.18	6.33	0.01
10	Total	1,286.13	9.93	9.32	1,286.74		61.00

### 2016-17

### VALUE ASSETS AND DEPRECIATION

S.No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land rights	23.90	-	-	23.90		-
2	Buildings	146.68	-	-	146.68	3.34	4.89
3	Hydraulic Works	623.60	-	ı	623.60	5.28	32.71
4	Other Civil Works	122.70	-	-	122.70	3.34	3.90
5	Plant & Machinery	364.57	-	ı	364.57	5.28	19.22
6	Lines & Cable Network	4.57	-	-	4.57	5.28	0.24
7	Vehicles	0.46	-	-	0.46	9.50	0.02
8	Furniture & Fixtures	0.08	-	-	0.08	6.33	0.00
9	Office Equipment	0.18	-	-	0.18	6.33	0.01
10	Total	1,286.74	-	-	1,286.74		61.00

### 2017-18

### VALUE ASSETS AND DEPRECIATION

S.No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land rights	23.90	-	-	23.90		-
2	Buildings	146.68	-		146.68	3.34	4.89
3	Hydraulic Works	623.60	-	-	623.60	5.28	32.71
4	Other Civil Works	122.70	-	-	122.70	3.34	3.90
5	Plant & Machinery	364.57	-		364.57	5.28	19.22
6	Lines & Cable Network	4.57	-	-	4.57	5.28	0.24
7	Vehicles	0.46	-	-	0.46	9.50	0.02
8	Furniture & Fixtures	0.08	-	-	0.08	6.33	0.00
9	Office Equipment	0.18	-	-	0.18	6.33	0.01
10	Total	1,286.74	-	-	1,286.74		61.00

### Name of the Generating Company: Meghalaya Power Generation Company Limited

Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### **DETAILS OF LOANS FOR THE YEAR 2013-14 (Actuals)**

(Rs. in Lakhs)

SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Interest Accrued during the Year
1	2	3	4	5	6	7	8
1	REC (MLHEP)	25304.24	8%-14%			25304.24	2718.97
2	PFC (MLHEP)	16830.83	13%-13.5%	7189.17	668.29	23351.71	2210.98
3	FEDERAL BANK OF INDIA (ML)	4464.29	13.55%		714.29	3750.00	588.10
4	CENTRAL BANK OF INDIA (ML)	6692.45	12.75%		833.33	5859.12	875.58
5	BSE Bonds (ML)	17000.00	10.37%			17000.00	1763.63
	Total	70291.81		7189.17	2215.91	75265.07	8157.26
6	State Govt. Loan	1300.00	9.31%			1300.00	121.03
	Grand Total	71591.81		7189.17	2215.91	76565.07	8278.29

### **DETAILS OF LOANS FOR THE YEAR 2014-15 (Actuals)**

(Rs. in Lakhs)

SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Interest Accrued during the Year
1	2	3	4	5	6	7	8
1	REC (MLHEP)	25304.24	8%-14%			25304.24	2718.97
2	PFC (MLHEP)	23351.71	13%-13.5%		1610.46	21741.25	3047.46
3	FEDERAL BANK OF INDIA (ML)	3750.00	13.55%		892.86	2857.14	479.06
4	CENTRAL BANK OF INDIA (ML)	5859.12	12.75%		1041.67	4817.45	754.69
5	BSE Bonds (ML)	17000.00	10.37%			17000.00	1763.63
	Total	75265.07		0.00	3544.99	71720.08	8763.82
6	State Govt. Loan	1300.00	9.31%			1300.00	121.03
	Grand Total	76565.07		0.00	3544.99	73020.08	8884.85

### **DETAILS OF LOANS FOR THE YEAR 2015-16 (Actuals)**

(Rs. In Lakhs)

SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	25304.24	8%-14%		1265.21	24039.03	2646.86
2	PFC (MLHEP)	21741.25	13%-13.5%		1207.85	20533.40	2786.53
3	FEDERAL BANK OF INDIA (ML)	2857.14	12.98%		595.24	2261.90	348.21
4	CENTRAL BANK OF INDIA (ML)	4817.45	12.20%		625.00	4192.45	602.57
5	BSE Bonds (ML)	17000.00	10.37%			17000.00	1763.63
	Total	71720.08		0.00	3693.30	68026.78	8147.79
6	State Govt. Loan	1300.00	9.31%			1300.00	121.03
	Grand Total	73020.08		0.00	3693.30	69326.78	8268.82

### **DETAILS OF LOANS FOR THE YEAR 2016-17 (Estimated)**

(Rs. In Lakhs)

SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Interest Accrued During the Year
1	2	3	4	5	6	7	8
1	REC (MLHEP)	24039.03	8%-14%		3163.03	20876.00	2409.32
2	PFC (MLHEP)	20533.40	13%-13.5%		2013.09	18520.31	2574.23
3	FEDERAL BANK OF INDIA (ML)	2261.90	12.98%		892.81	1369.09	246.99
4	CENTRAL BANK OF INDIA (ML)	4192.45	12.20%		1041.65	3150.80	491.10
5	BSE Bonds (ML)	17000.00	10.37%			17000.00	1763.63
	Total	68026.78		0.00	7110.59	60916.19	7485.26
6	State Govt. Loan	1300.00	9.31%			1300.00	121.03
	Grand Total	69326.78		0.00	7110.59	62216.19	7606.29

### **DETAILS OF LOANS FOR THE YEAR 2017-18 (Projected)**

(Rs. In Lakhs)

SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Interest Accrued During the Year
1	2	3	4	5	6	7	
1	REC (MLHEP)	20876.00	11.07%		2530.44	18345.56	2103.91
2	PFC (MLHEP)	18520.31	13.25%		1610.48	16909.83	2335.38
3	FEDERAL (ML)	1369.09	12.98%		714.28	654.81	137.67
4	CBI (ML)	3150.80	12.75%		833.32	2317.48	365.71
5	BSE Bonds (ML)	17000.00	10.37%		12000.00	5000.00	1141.17
6	REC (New Loan)		12.50%	9948.00		9948.00	1243.50
	Total	60916.19	0.00	9948.00	17688.52	53175.67	7327.34
6	State Govt. Loan	1300.00	9.31%			1300.00	121.03
	<b>Grand Total</b>	62216.19		9948.00	17688.52	54475.67	7448.37

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### INTEREST CAPITALISED

(Rs. in Crore)

S.N.	Interest capitalized	FY 2013-14	FY 2014- 15	FY 2015- 16	FY 2016- 17	FY 2017- 18
1	2	3	4	5	6	
1	WIP	-	-	-	-	-
2	GFA at the end of the year	1,285.78	1,286.13	1,286.74	1,286.74	1,286.74
3	WIP+GFA at the end of the year	1,285.78	1,286.13	1,286.74	1,286.74	1,286.74
4	Interest (Excluding interest on WCL)	82.78	88.85	82.69	76.06	74.48
5	Interest Capitalised	-	_	-	-	-

### Name of the Generating Company: Meghalaya Power Generation Company Limited

Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### **Investment Plan (Scheme - wise)**

(Rs. in Lakhs)

S. N	Name of Scheme/ Project	Approved Outlay*	FY 2013-14 (Actuals)	FY 2014-15 (Actuals)	FY 2015-16 (Actuals)	FY 2016-17 (Estimated)	FY 2017-18 (Projected)	Progressive Expenditure upto FY 2017-18
1	2	3	4	5	6	7	8	9
1	Cooling System modification & improvement	251	0.00	0.00	0.00	0.00	0.00	0.00
2	Standby Power supply in DAM	58	0.00	0.00	0.00	0.00	0.00	0.00

<sup>\*</sup> Outlay planned but yet to be approved

### Format - 16

## Name of the Generating Company: Meghalaya Power Generation Company Limited Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### **Investment Plan (Year - wise)**

(Rs. in Lakhs)

S.N	Year	Originally proposed by the Utility	Approved by the Commission	Revised by the Utility	Revised approval by the Commission in review	Actual expenditu re
1	2	3	4	5	6	7
1	2015-16	309	Not yet Approved	NIL	_	_

Name of the Generating Company: Meghalaya Power Generation Company Limited
Name of the Generating Station: Myntdu Leshka Hydro Electric Project

### **WORKS-IN-PROGRESS**

(Rs. in Crore)

S.N	Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
1	2	3	4	5	6	7
1	Opening balance	101.21	ı	-	-	
2	Add: New inverstments	(6.75)			-	
3	Total	94.46	ı	-	-	
4	Less investment capitalised	94.46			-	
5	Closing balance	-	ı	-	-	